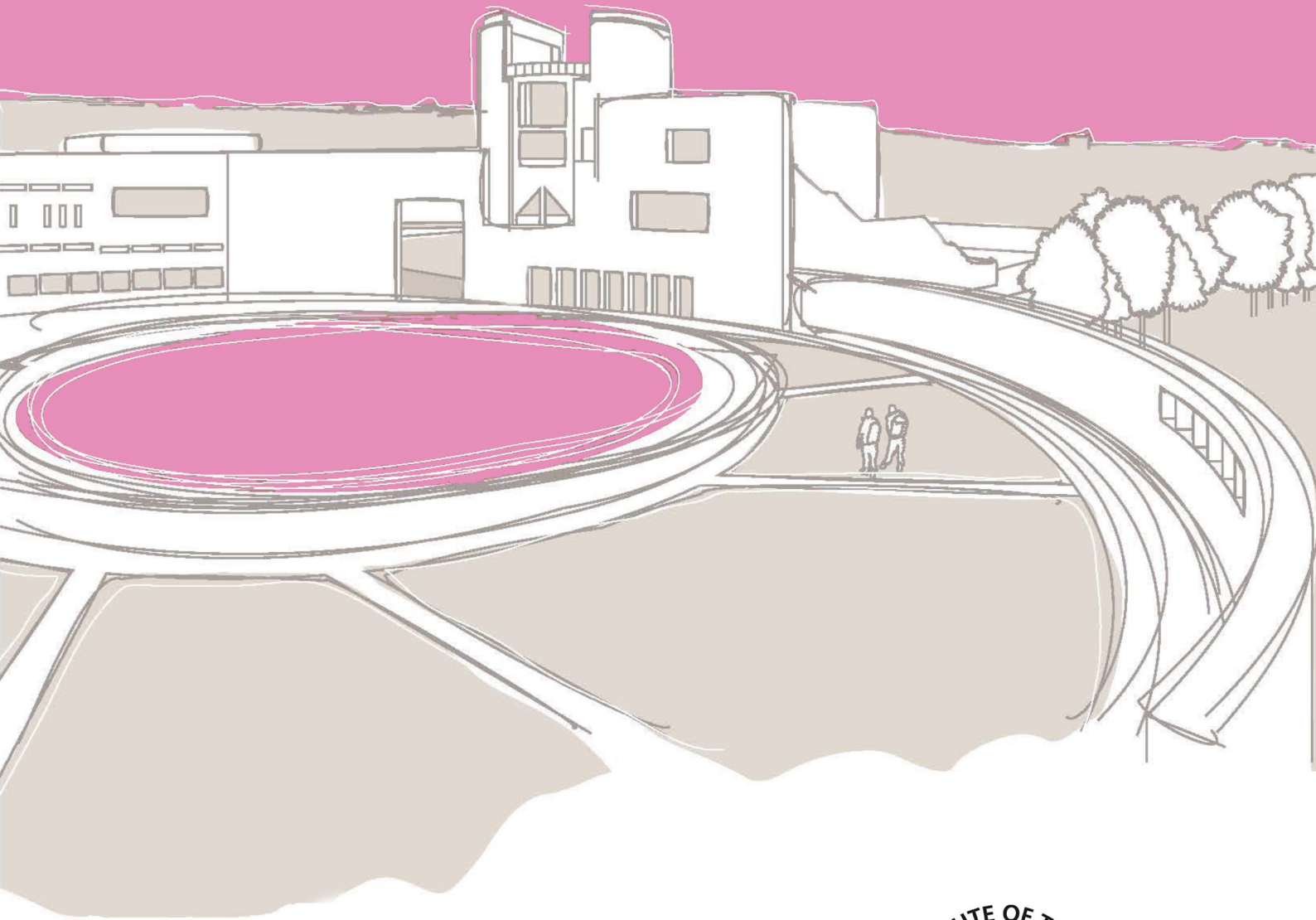


annual report 16/17

Cork Institute of Technology

www.cit.ie

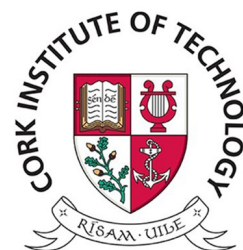


Ireland's European Structural and Investment Funds Programmes 2014-2020

Co-funded by the Irish Government and the European Union



EUROPEAN UNION
STRUCTURAL FUNDS





CIT Bishopstown Campus



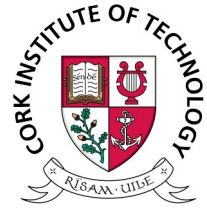
CIT Cork School of Music (CIT CSM)



CIT Crawford College of Art & Design (CIT CCAD)



National Maritime College of Ireland (NMCI)



Cork Institute of Technology

annual report 16/17

www.cit.ie

History

The history of Cork Institute of Technology (CIT) is a long and honourable one. The Royal Cork Institution, which may be regarded as the precursor of both University College Cork and Cork Regional Technical College, was in existence as early as 1802 and received its Royal Charter in 1807. It was especially famous for its chemistry education. It amalgamated with the Royal Society for the Promotion of Fine Art in 1825 and the expanded new Royal Cork Institution acquired the Custom House in 1832.

The School of Design was established in Cork in 1850 and evolved into the Crawford Municipal School of Art, which formally came into existence at Emmet Place in 1885. The School moved to the former Crawford Municipal Technical Institute in Sharman Crawford Street in 1980 and was renamed the Crawford College of Art and Design in 1986.

The Technical Instruction Committee of Cork Corporation was established in 1901 and it proceeded to further develop technical education in Cork. In 1909 it decided to establish a Technical College which was opened in 1912 and named The Crawford Municipal Technical Institute. The institution was named after Mr A F Sharman Crawford who donated the site on the then named Fitton Street. While tracing its origins to the Royal Cork Institution, its immediate precursor was the School of Science, established in 1854, that came under the jurisdiction of the Corporation's Technical Instruction Committee in 1901.

The new Crawford Municipal Technical Institute offered tuition in a wide variety of technical subjects. For a period in the 1920s, it participated in a degree in engineering in University College, Cork. The range of its courses grew over the years. A National University of Ireland Diploma in Chemical Technology was, with the cooperation and involvement of University College Cork, established in 1941. A course in Marine Engineering was established in 1944. In 1955 the first two-year Certificate in Industrial Science was introduced. In the 1960s various courses in Civil Engineering, Electronics, and Mechanical Engineering came into being.

In 1963 the building courses were transferred to the new School of Building at Sawmill Street from the overcrowded Institute. The Institute's Electrical Trades Section was later located at Paul Street, Cork. Other engineering classes were conducted in the Deanery, Dean Street.

The new Cork Regional Technical College (CRTC) was established in October 1974. It incorporated The Crawford Municipal Technical Institute, the School of Building, and the Electrical Engineering extension previously housed in Paul Street. Certain business courses and staff were transferred to the new College from the City of Cork VEC's School of Commerce at Morrison's Island. The College was officially opened in January, 1977, by the then Taoiseach, Mr Jack Lynch TD.

As a result of a national manpower review, Higher Education Institutions (HEIs) were asked to submit proposals to the Department of Education in 1978 for new degree courses which would enhance the graduate manpower skills of the Irish workforce. The CRTC under the direction of its Principal James P Roche proposed four degree courses: Chemical Engineering (Technology), Electrical and Electronic Engineering, Mechanical Engineering, and Computing. There was intense activity in the College to prepare course material for the courses and to seek accreditation from the National Council for Educational Awards. The initiative was successful and the first graduates of these courses were awarded their parchments in 1983. The courses developed much respect from stakeholders in society and industry. Subsequently, the Institution of Engineers of Ireland accredited the courses for professional membership of the Institution and admitted the graduates of these courses in Chemical Engineering (Technology), Electrical and Electronic Engineering, and in Mechanical Engineering to membership of the Institution. Separately the Institution of Chemical Engineers accredited the degree in Chemical Engineering (Technology) for corporate membership of the Institution.

The 25th International Apprentice Competitions were held in CRTC from 2 - 17 September 1979. The Competitions in thirty four craft skills were held mainly at the Bishopstown Campus and fifteen countries competed from Europe, Asia, and America. The intense preparation for the competitions took more than a year and required the preparation of technical sites to a very high specification. There were over six hundred competitors and officials on site and the quest for accommodation for these visitors in city and county hotels was a major task. Social functions were well prepared for the guests and involved many cultural activities and visits to beauty spots in the region. There was a high level of satisfaction with the presentation of Irish cultural activities. The Competitions were opened by the Minister for Education, Mr John Wilson TD and awards at the closing ceremony were presented by the Minister for Labour, Mr Gene Fitzgerald TD. The Competitions were visited by the President of Ireland Dr Patrick Hillary. The events were deemed a major international success by visitors and the Department of Education, and Ireland was third in the medals' table. The event enhanced the international reputation of Ireland as a centre for the highest level of technical preparation and achievement.

The CRTC became a self-governing entity on 1 January 1993, having previously been an educational institution under the control of the City of Cork Vocational Education Committee. The Regional Technical Colleges Act, 1992 also provided for two other educational establishments under the control of the VEC to be established as schools of the CRTC, namely the Cork School of Music (CSM) and the Crawford College of Art and Design (CCAD).

In the period 1993 to 2003 there was a large increase in courses and student numbers at all levels in the Institute. This was due to an increase in demand for skilled graduates to take up employment in a rapidly expanding high technology economy. There was a major refurbishment of workshops and laboratories during this period, which resulted in a much improved quality of provision to students of the Institute.

On 18 December 1997 the CRTC was redesignated “Cork Institute of Technology” by Mr Micheál Martin TD, Minister for Education and Science.

In 1998, Cork Institute of Technology (CIT) was reviewed by an international review group and as a result of their recommendations the Government empowered the Institute in 1999 to award its own Diplomas and Certificates consequent on a procedure agreed with the National Council for Educational Awards. This was the first step in the delegation of authority to make its own educational awards to CIT.

In October 2004, the National Maritime College of Ireland (NMCI) in Ringaskiddy, Co Cork accepted its first cohort of students. The Department of Nautical Studies situated at the Bishopstown Campus of CIT transferred to the Ringaskiddy facility. The NMCI is a constituent college of CIT in a partnership with the Irish Naval Service and Focus Education Ltd. The College caters for the education and training needs of the merchant navy and the non-military training requirements of the Naval Service, and provides a broad range of training services for the maritime industry. Focus Education Ltd is the private partner with responsibility for facilities management at the College.

In June 2005, the Higher Education and Training Awards Council (HETAC) delegated full award authority to the Institute for all its Taught Programmes up to and including Level 9 (Taught Masters) of the National Qualifications Authority of Ireland (NQAI).

HETAC delegated full award authority to the Institute to make awards at Level 9 (Research Masters) in various Engineering and Science disciplines in June 2005.

On 19 September 2005, HETAC delegated awarding authority to CIT to award its own PhD degrees thus completing the Levels 8, 9, and 10 awarding authority. The delegation was done with the agreement of the National Qualifications Authority of Ireland (NQAI) and applied to fields of learning where the Institute has been accredited to maintain a research register. CIT now has degree awarding powers that are comparable to universities in Ireland. Having awarding authority up to PhD level will contribute to the ongoing development of leading-edge research in Science and Engineering in CIT.

A high quality and award winning set of buildings, the Student Centre, the Administration Building and the Tourism and Hospitality Building surrounding a courtyard was completed and occupied in the period 2005-2007. These buildings greatly enhance the image and facilities of CIT.

The Rubicon Centre was built on a 2 hectare site which was purchased in 2002. Since opening its doors in January 2006, the Rubicon Centre has quickly positioned itself as a catalyst, assisting entrepreneurs to take their projects to the next stage. The Rubicon Centre’s role as an incubator is to assist the formation and growth of early stage, knowledge-intensive businesses, by providing physical space, in-house management support, access to advice, and support from Institute resources. The Centre aims to stimulate an environment of creativity and innovation with a continual focus of nurturing the growth of knowledge based business and commercial research in the South West Region.

The Minister for Education and Science signed an Order to commence the Institutes of Technology Act 2006 with effect from 1 February 2007. The new legislation brings the country’s fourteen Institutes of Technology, including the State’s largest third-level institute, the Dublin Institute of Technology, under the remit of the Higher Education Authority (HEA) for the first time. Until then, the HEA had only funding responsibility for the seven universities and certain smaller designated institutions.

The commencement of this legislation marked a historic milestone for the higher education system in Ireland. It was another major step in the development of the Institutes of Technology as hugely significant providers of higher learning opportunities from sub-degree right through to doctoral level.

The Cork School of Music was first established in 1878 in the Grand Parade, Cork and is the oldest School of Music in these islands. It had a temporary home in George’s Quay after the second World War and then moved to new premises in Union Quay in 1956. The Hardiman Report gave scope for a review of music education in CIT. After much support from the external stakeholders, institutions, citizens of Cork, and the Department of Education and Science, a beautiful building with high

quality facilities was constructed under a Public Private Partnership. The Official hand over to CIT of the new Cork School of Music facility by the Public Private Partner, Hochtief took place in July 2007.

Since 2007, CIT has pursued a broad strategic project aimed at improving the Institute's online services and presence. The initial part of this project was a redesign of the Institute's public facing website www.cit.ie which has been completed in phases. The policy in relation to the main website is that it is primarily for individuals external to CIT. Therefore, for the most part, information which is relevant only to an internal audience does not appear on the main website. To provide online services for those inside CIT two further projects were developed and were aimed at providing dedicated online service and communication portals for the Institute's staff and students. Phase 1 of the staff portal project (gateway.cit.ie) was completed in September 2010 and the student portal (www.mycit.com) was put in place in September 2009 which was deployed in conjunction with the student email system.

A substantial area of land (14.175 hectares) was purchased by the Institute in the 1990s. This facilitated the development of sports facilities which included eight playing pitches, a refurbished running track and gymnasium. A new Sports Stadium was opened by the Minister for Education and Science, Mr Batt O'Keeffe TD on 26 May 2008.

The Blackrock Castle Observatory is a collaboration between Cork City Council, Cork Institute of Technology, and a private benefactor. It was opened to the public in November 2007 as an international award-winning Science Centre, Observatory, and riverside restaurant.

The original tower was built in 1582, rebuilt in 1733 and built in its present form in 1829. It was renovated in the 1960s and again acquired by Cork Corporation in 2001. The Castle is important in promoting Science and the significance of CIT in the educational community and society.

On 16 October 2009, the Minister for Education and Skills, Mr Batt O'Keeffe TD, gave approval to CIT to purchase a site and building adjacent to the Bishopstown Campus from USA Electronics firm Tyco-Sensormatic to expand its campus. The acquisition of the 7.4 acre site and building allowed CIT to accommodate all apprentice activity on its Bishopstown Campus. CIT contributed some funding from its own resources with the majority of the acquisition funded from the Capital Budget for third-level institutions. The Minister was present in the Institute to sign the Tyco Contract on 16 October 2009 with Dr Brendan J. Murphy, President, CIT, and Mr Donal Sullivan, Managing Director, Tyco-Sensormatic Electronics also in attendance.

On 17 January 2010, CIT formally took possession of the new Nimbus Centre for Embedded Systems Research. Funded through the HEA Programme for Research in Third-Level Institutions (PRTLII) in 2007, the Nimbus Research Centre is the first building nationally to be completed in the 4th cycle of PRTLII funding and reflected very successful collaboration and project management by the CIT Development Office, the architects, building contractors, and the team of researchers for whom the building was designed. In a time of financial constraint, it also reflected well on the team that the project was completed on time and within budget.

Beginning in 2005, CIT completed the transition to a module-based system of curriculum delivery by 2009. It is common that modularisation is implemented as part of wider reforms and often associated with training to specified learning objectives (frequently competence-based); participative learning; individualised training routes; and credit accumulation and transfer. This has been the case with the Modularisation project at CIT. As well as introducing a module-based system, CIT also introduced an academic year consisting of two semesters. The new system was implemented for incoming first year students in September 2007 and was extended to all years of all taught undergraduate and postgraduate programmes in September 2008. The first cohort of graduates who completed their entire honours degree programme under the new system were conferred in October 2011.

The CIT Wandersford Quay Art Gallery situated near the CIT CCAD was opened on 18 June 2010.

On 7 September 2015, the Institute purchased the city centre located building, 46 Grand Parade. The building has a gross floor area of 1,265sqm over 4 floors and is in a prominent position overlooking the South Mall, fronting the Grand Parade and bordering the River Lee. It is also adjacent to the Nano Nagle footbridge. The building houses students and staff from the CIT CCAD.

In recent years, CIT has signed Agreements with Universities and Institutions both nationally and world-wide to collaborate on academic programmes and research. The Institute has developed especially strong links with University College, Cork, University of Applied Sciences, Darmstadt, Germany, and the University of Pune, India.

Mission and Values of Cork Institute of Technology

All the activities of CIT are governed by its mission statement. The mission statement encapsulates and reflects the Institute's core values.

Our Mission

We are proud of our distinct mission and role in the provision of higher education for the region and beyond. Our mission is:

To provide student-centred career-focused education and research for the personal, professional and intellectual development of the student and for the benefit of the broader society in the region and beyond.

Our Commitments

The Institute is committed to its role within the region and nationally. As we pursue our mission across our full range of activities, we are focused on fulfilling the following commitments which encapsulate the Institute's priorities, ethos and values...

- **CIT is a student-centred institution**
- **CIT delivers career-focused education and research**
- **CIT provides inclusive access to higher education**
- **CIT plays a regional, national and international role**

Our Vision

As we look towards the future, we have an ambitious and challenging vision for the strategic development of CIT which is that:

CIT will be an internationally recognised centre of excellence in the provision of career-focused education which produces effective, ethical professionals capable of entrepreneurship, innovation and creativity.

Achieving our Goals

Our strategic goals are aligned with broader national goals including those outlined in the National Strategy for Higher Education to 2030.

The Strategic Management Framework

The Institute has adopted an agile and adaptive approach to strategic management and strategic planning.

Extract taken from the Institute's Strategic Plan 2012 – 2016.

Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology



Contents

Cork Institute of Technology

	Page
1 Introduction	
1.1 Chairman's Statement	12
1.2 President's Statement	13
1.3 Equality Statement	20
1.4 Irish Language & Culture	21
1.5 About Cork Institute of Technology and its Organisation Chart	22
1.6 Special Units and Centres operating within the Institute and their relationship to the Institute's Organisation Chart	25
1.7 Sports Facilities Development	30
2 Governance	
2.1 Annual Governance Statement 2016/2017	36
2.2 Membership of Governing Body	42
2.3 Governing Body Meetings	43
2.4 Governing Body Expenses	44
2.5 Institute Executive Board (IEB)	45
2.6 Institute Senior Staff	46
3 Academic & Student Affairs	
3.1 Academic Council Membership	52
3.2 Academic Council Executive Committee Membership	55
3.3 Academic Council Committees	56
3.4 Academic Development	57
3.5 Approved Courses – Full-Time	58
3.6 Fáilte Ireland and Craft Approved Courses	66
3.7 Approved Courses – Part-Time	67
3.8 Validating Authorities	75
3.9 External Examiners	77
3.10 Student Statistics	91
3.11 Student and Graduate Prizes & Achievements	94
3.12 Student Ombudsman	107
3.13 Access Service Report	108
4 Research, Innovation and Entrepreneurship, External Engagement and Extended Campus Activities, Alumni Engagement, and International & EU Activities	
4.1 Research & Innovation	116
4.2 Research Publications	120
4.3 Innovation and Commercialisation	132
4.4 Incubation and Entrepreneurship	135
4.5 External Engagement and Extended Campus Activities	140
4.6 Alumni Engagement	144
4.7 International & EU Activities	146
5 Human Resources	
5.1 Human Resources Report	154
5.2 Staff Numbers	155
5.3 Staff Achievements	157
6 Financial Report	
6.1 Financial Report 2016/17	164
6.2 Audited Accounts 2016/17	165
7 Other Information	
7.1 News & Events	203
7.2 Campus Development	207
7.3 Safety & Facilities Management	210
7.4 Contact Points	212



CIT CRAWFORD COLLEGE OF ART AND DESIGN

1. Introduction

Cork Institute of Technology

- 1.1 Chairman's Statement**
- 1.2 President's Statement**
- 1.3 Equality Statement**
- 1.4 Irish Language & Culture**
- 1.5 About Cork Institute of Technology and its Organisation Chart**
- 1.6 Special Units and Centres operating within the Institute and their relationship to the Institute's Organisation Chart**
- 1.7 Sports Facilities Development**

1.1 Chairman's Statement

I am delighted to present this annual report of CIT for 2016/17. CIT continues towards the achievement of its mission of providing the best student-centred education in the country for the benefit of the student and for the benefit of the whole of society. This is my sixth year in this role and it has been a tremendous honour and privilege to be involved with this great institution and to work closely with my fellow Governors.

I am pleased to see that the Institute continues to establish a number of new collaborations with International Universities to provide education, training and research opportunities for students across a range of disciplines and specialist areas.

My fellow Governors and I are very proud of the continued success of our students' achievements at both national and international level and at how they represent CIT at events around the world, we commend them and our academic staff for this.

Following a rigorous assessment and approval process, the Institute designated the title of Professor to 13 of its senior academic staff in December, this was in recognition of their outstanding levels of academic distinction in teaching and learning, and in research.

A major highlight of the year was the hosting of the International Space University 30th Space Studies Programme from 19 June to 18 August at the Bishopstown Campus, this was a tremendous success for both the International Space University and CIT.

Arts and culture continue to form an integral part of life for students and staff at the Institute. Over 200 arts events took place in venues across the campuses, involving and engaging students and staff, with local, national and international communities. Luke Jerram's "Museum of the Moon", which was on display in the Student Centre in June, was a major highlight, reinforcing the Institute's interest, commitment, and capacity to forge successful partnerships in and through the arts.

In sport, there was great success on all fronts during the year with special mention of sailing, boxing, GAA both men's and ladies, soccer, and karate. We take particular pride in all their achievements and wish them all the very best for the year ahead. I must also congratulate the Students' Union RAG Week for the notable sum of money it raised for charity.

The journey to Technological University continues. We still await the passage of the Technological Universities Bill through the Houses of the Oireachtas in order for the MTU partners to continue their journey to the full implementation of the project.

As Chairman of the Governing Body, I would like to pay tribute to Dr Brendan Murphy who retired on 31 August, having served thirteen years as President, and wish him well in his retirement.

I would like to extend my gratitude and appreciation to the Senior Management and the Staff of CIT, all of whom deserve great credit for their continued dedication to CIT during 2016/17.

Finally, I want to extend my gratitude to my fellow Governors, who through their contributions at Governing Body and various committees, contribute significantly to the development of CIT.

Bob Savage
Chairman

1.2 President's Statement 2016/17

This is my thirteenth and final year in office and the following is my President's Statement which highlights some of the achievements of CIT in 2016/17:

A. Academic Matters

A very successful Open Day took place at the NMCI on 20 October. The event attracted a significant number of attendees who were given a wonderful opportunity to engage with NMCI staff members, industry representatives and a wide range of organisations involved in the maritime industry.

The Conferring of Degrees and Other Awards for the Faculty of Business & Humanities and the Teaching & Learning Unit took place on 21 October. One thousand three hundred and twenty-four (1,324) graduands obtained their parchments.

The Faculty of Engineering & Science and the CIT CCAD Conferring of Degrees and Other Awards took place on 24 October. Nine hundred and seventy-two (972) graduands obtained their parchments.

The Conferring of Degrees for the CIT CSM took place on 27 October, ninety graduands obtained their parchments. These included the first cohort of students who graduated from the following two programmes:

- Bachelor of Arts (Hons) in Theatre & Drama Studies
- Bachelor of Arts (Hons) in Popular Music

The joint CIT/UCC Conferring Ceremony took place in UCC on 28 October. Eighty-four graduands were conferred in the following programmes:

- Master of Architecture
- Bachelor of Science (Honours) in Architecture
- Bachelor of Science (Honours) in Biomedical Science
- Professional Master of Education (Art & Design)

A delegation from Chongqing Industry Polytechnic College, China visited the Institute on 9 November. The visit was a follow-on from the signing of an MoU with Chongqing in October.

On 11 November in the presence of the President of Ireland, the Institute signed an MoU with two partner universities in Vietnam: The University of Economics at the University of Danang (UE-UD) and Ho Chi Minh University of Technology (HCMUT). The Minister for Foreign Affairs and Trade, Charles Flanagan TD and Enterprise Ireland CEO, Julie Sinnamon were also present for the signing.

The 2017 IrelandSkills National Competition took place at the Institute from 5 to 9 December. While the various crafts involved in the IrelandSkills National Competition are shared between CIT and DIT this year CIT was proud to host competitions in eight skills areas as follows:

Automobile Engineering, Carpentry, Construction Plant Fitting, Electrical Installation, Industrial Control, Joinery, Metal Fabrication, and Plasterwork and Drywall systems.

The 2017 IrelandSkills winners in the various skills were presented with trophies at an awards ceremony held on 9 December. The Deputy Lord Mayor of Cork, Cllr P.J. Hourican and Deputy County Mayor, Cllr Derry Canty attended the ceremony.

Mr Michael Creed TD, Minister for Agriculture, Food and the Marine launched the Certificate in Brewing and Distilling Operations on 13 January. This programme provides candidates with the scientific and engineering background to work in craft and traditional breweries and distilleries. CIT is the only HEI in Munster providing such training.

The Institute hosted a Transition Year (TY) STEM Campus Week for female students from 16 to 20 January as part of the IWISH 2017 Programme. The Campus week featured an interactive 5 day hands-on programme that engaged students in science, technology, engineering and mathematics (STEM) disciplines via applied and practical workshops, site visits and demonstrations. They gain insight into the daily lives of STEM professionals, experienced STEM applications in industry, and interacted with STEM academics and current undergraduates.

The Spring Conferring of Degrees and Other Awards took place in the NMCI on 16 February. A total of ninety-five graduands obtained their parchments which included five PhDs.

An agreement was signed with the Arup Trust for the provision of a scholarship for students entering the BEng (Hons) in Structural Engineering programme. The scholarship will be awarded to a first year student who registers on the programme in the academic year 2017/18 and it is intended that this scholar will receive an award for each of the four years of the programme. The provision of this scholarship is a significant development and one worthy of a programme which has provided high quality graduates to the profession since the first cohort of graduates in 1998.

The Lord Mayor of Cork, Cllr Des Cahill officially opened SciFest 2017 in the Nexus Hall on 31 March. SciFest is a national festival of science organised regionally in collaboration with the Institutes of Technology and is open to all second level schools. Over 330 students participated, either as individuals or in group projects from 32 different schools across Cork City and County. One hundred and forty-five different projects were exhibited across the disciplines of Life Sciences, Physical Sciences and Technology, and at three levels, Junior, Intermediate and Senior.

A lecture on “The Rosetta Mission – Orbiting and Land on an explosive comet” took place on 27 April. The lecture was given by Laurence O’Rourke, Rosetta Downlink Science Operations Manager with the European Space Agency (ESAC). It supported the theme of the annual Mechanical Biomedical and Manufacturing Exhibition “Space Engineering and Science” and CIT hosting the International Space University (ISU) during the summer months.

The Faculty of Engineering & Science welcomed 80 students on campus on 15 May for the “Engineering Your Future” Transition Year programme. This programme, supported by Engineers Ireland’s STEPS programme, was a week-long, hands-on programme for Transition Year students, designed to introduce them to the exciting and diverse world of Engineering.

Ms Ciara Wilson, President, Cork Chamber officially launched the CIT Continuing Education Handbook 2017/18 on 29 May at Bishopstown Campus.

The Summer Conferring of Degrees and Other Awards took place at the NMCI on 20 June. A total of sixty-eight graduands received their parchments which included eight PhDs.

A delegation from Shanghai which included the Mayor of Shanghai, Ying Yong visited the Institute on 7 July. Ms Therese Healy, Consulate General of Ireland, Shanghai accompanied the delegation on their visit to CIT.

The Institute has established a number of collaborations with International Universities to provide education training and research opportunities for students across a range of disciplines and specialist areas including exchange programmes. Listed below are Agreements/MOUs which were signed during this academic year as follows:

1. Chongqing Industry Polytechnic College, China
2. Hainan University, China
3. University of Economics – The University of Danang, Vietnam
4. Ho Chi Minh University of Technology (HCMUT), Vietnam
5. Hochschule Karlsruhe University of Applied Sciences, Germany
6. Tavistock and Portman NHS Foundation Trust, London, UK and Bessborough Centre, Cork
7. Johnson & Wales University, USA
8. High Point University HPU, USA
9. Endicott University, USA

B. Student Achievements and Awards

On 8 September, CIT’s HydroFLOcean (H-FLO) Multidisciplinary Team of Engineering and Business students won the 2016 Irish James Dyson Award – First Place – National Winner 2016 for their invention. The H-Flo is a new innovative water safety device that disengages a lanyard from a harness when submerged in water.

The James Dyson Foundation announced on 29 September that CIT’s H-FLO Multidisciplinary Team were among the top 20 Global Finalists short-listed from over 1,100 entries from 22 countries. Their short-listing was a great achievement given that the other Top 20 finalists were global.

CIT 2015 graduate of the BSc (Hons) in Biomedical Science, Caoimhe Lynch, won the European Association of Professions in Biomedical Science (EPBS) award for the best poster showing undergraduate research in the field of Biomedical Science in Athens on 8 October.

CIT Student Inc and Biomedical Engineering graduates Eoin McCarthy and Myat Min Khaung won first place in the Accenture Leaders of Tomorrow Best Start-up Video Pitch Competition on 14 October.

The Faculty of Business & Humanities 2016 Awards Ceremony took place on 20 October to honour the achievements of the best graduates from the Faculty. Fifty-three awards were presented on the evening.

CIT CSM held its annual Awards Ceremony on 21 October. A total of nine awards were presented to junior and senior musicianship cycles and to full-time students.

On 27 October, Sharon O’Keeffe, BBus in Culinary Arts year 2 student won a Bronze Medal at the AEHT European Association of Tourism & Hospitality Schools Competition held in London.

Mechanical Engineering student, Vincent Forde, was short-listed as one of just three finalists for the Special Recognition Award at the Irish Early Career Awards on 9 November. The awards celebrate excellence and recognises the achievements of young professionals in Ireland and rewards innovation, best practice and outstanding achievement across a broad range of sectors.

Biomedical and Sustainable Energy students, Karen McDonnell and Lisa Mooney received the MEETA National Certificate Award of Excellence on 17 November.

Fourteen students from the BSc (Hons) in Interior Architecture programme received awards at the National Design Competition on 18 November. The annual competition is organised by Walls to Workstations (W2W) and Orangebox.

The Annual Presentation of Institute Prizes honouring our outstanding graduates of 2016 took place on 29 November. Sixteen graduates were presented with awards.

On 1 December, Mechanical Engineering student, Vincent Forde, who competed against intense competition at the Irish Best Young Entrepreneur South Cork LEO (Local Enterprise Offices) Finals, won two major awards – Best Business Idea Award 2016 and Overall Entrepreneur of the Year Award 2016.

The launch of the Louis O’Halloran Scholarship Award took place on 5 December in the Nimbus Research Centre. The award derives from a generous endowment made to the Department of Electrical & Electronic Engineering by an Electronics graduate from the Crawford Municipal Technical Institute and is dedicated to the memory of the late Louis O’Halloran who was a Senior Lecturer in the Department.

The Faculty of Engineering & Science 2016 Awards Ceremony took place on 8 December to honour the achievements of the best graduates from the Faculty. Fifty-four awards were presented on the evening.

CIT CSM students, Kevin Jansson and Ellen Jansson performed as soloists with the National Youth Orchestra of Ireland at their New Year Gala Concert on 8 January in the National Concert Hall.

A ceremony was held on 27 February to announce the recipients of the CIT RÍSAM Scholarships 2016. Five proposals were recommended for funding. The RÍSAM initiative was developed by the School of Graduate Studies as part of the Institute’s ongoing commitment to Doctor of Philosophy Education and Research.

Dialast were crowned the winners of the CIT Entrepreneurs of the Year 2017 at Innovation Week on 10 March. The multidisciplinary engineers from Biomedical Engineering and Mechanical Engineering devised a product, Glucadose, for diabetics. Glucadose is a revolutionary, innovative and life saving device that is first of its kind in the market.

The presentation of CIT Student Societies and Activities Awards 2017 took place on 3 April. Thirteen awards were presented on the evening.

On 27 April, the Students’ Union hosted the Union Council Awards at which class representatives were presented with Certificates of Merit in recognition of their voluntary contribution to campus life. Class representatives are at the core of the Union’s growth and development and play a key role in the communication process between students, staff, and the Students’ Union.

BEng (Hons) in Structural Engineering student, Stephen Buckley received an Excellence Award from Engineers Ireland on 27 April as the best Level 7 Engineering Graduate to progress to an Engineers Ireland accredited Level 8 programme. Stephen was presented with his award by Dermot Byrne, President of Engineers Ireland.

Sixteen year old Callum Owens was awarded a €5,000 bursary as joint winner of the 2017 National Concert Hall Young Musician's Award. Callum studies cello at CIT CSM and was also selected for the Camerata Ireland Academy at Clondeboy 2017.

C. Strategic Matters

In June 2017, an interim Strategic Plan was approved by the Governing Body. This interim plan was put in place to facilitate the formulation of the new plan which will be in place for the 2018/19 academic year. To facilitate the formulation of the new plan and in recognition of the increased workload required for the MTU project a Strategic Management Facilitator was appointed in the office of the Head of Strategic Development.

The national Strategic Dialogue process completed its first three-year cycle and a review of the process is planned before the next cycle of the process commences during the 2017/18 academic year. Throughout the process CIT performed in the top tier of institutions nationally.

D. Staff

Prof. Margaret Linehan, Head of School of Humanities, received the "Companionship of BAM International Award" on 6 September at the 30th anniversary conference of BAM held at the University of Newcastle-Upon-Tyne. Companionship of BAM is an award made by invitation only in recognition of outstanding contributions to the field of Management.

Prof. Roy Sleator, Senior Lecturer was conferred with a DSc at the Spring Conferencing in UCC on 24 February.

Jesse Presley Jones, Lecturer, CIT CCAD represented Ireland at the prestigious Venice Biennale 2017, the renowned international art exhibition. The Irish Pavilion opened on 10 May when Jesse's work titled "Tremble Tremble" was unveiled to a rapturous response.

The Institute held its inaugural Long Service Award Ceremony on 18 May. The event marked the 35 years plus valued service and individual contributions of staff to the Institute.

Capt. Viv Gough, Head of Department of Maritime Studies received the Special Recognition Award at the Maritime Industry Awards 2017 on 29 June.

E. Arts and Culture

"Perceptions 2016: The Arts of Citizenship" Exhibition ran from 9 September to 29 October in ten city venues. The exhibition was organised by CIT CCAD's Department of Arts in Health & Community Practice and Cork City Council Arts Office and showcased the artwork of over sixty artists working in supported studio settings, both nationally and internationally.

The annual CIT Christmas Fair took place on 30 November and 1 December. Forty stalls full of locally produced gifts, crafts, food and entertainment took part. Proceeds from a raffle went to a registered charity - Cork Penny Dinners.

CIT's annual Raise and Give (RAG) Week ran from 6 – 10 February raising €6,121.61 for worthwhile Cork charities.

The CIT CSM Carnival Samba Band participated in the St Patrick's Day Parade on 17 March. The band was made up of current and former students of the CIT CSM as well as lecturers past and present.

The CIT CSM Opera Platform Group performed a selection of scenes from The Marriage of Figaro by Mozart on 7 May. It was a delightful professional production ably directed by CIT Staff, Mary MacSweeney and Michael Joyce providing faultless animated piano accompaniment.

CIT CSM hosted the Munster Fleadh of Comhaltas Ceoltóirí Éireann from 18 to 23 July.

CIT Arts Office works with students and staff in developing and supporting arts related projects and to promote arts activities in all campuses. CIT recognises that, in addition to students' academic development, the arts should be an integral part of life for students and staff and has invested significant funds to develop dedicated professional Performance Theatres and Exhibition Spaces on its campuses.

F. Sport

The Cork Ladies Footballers won their sixth consecutive All Ireland Football title on 25 September, two graduates and one current student were part of the Cork panel. All three were recipients of the CIT Sports Scholarship Bursary and excellent ambassadors for the Institute.

Chloe Miller, 3rd Year BSc in Agriculture represented CIT and Ireland at the Scud World Shotokan Karate Championships in Burgas, Bulgaria from 8 to 10 October. She secured a bronze medal in +58kgs Youth Category.

A reception was held on 11 October to mark the outstanding achievement of Gary O'Donovan who won an Olympic Silver Medal along with his brother Paul in Rio de Janeiro, Brazil, on 12 August.

Dalton O'Shaughnessy, 2nd Year BSc in Applied Biosciences & Biotechnology became the European Heavyweight Champion when he represented CIT and Ireland at the European Championships in Slovenia from 21 to 28 October.

CIT students represented Ireland in the Sailing World Cup Championships on 7 November finishing in 4th place overall.

CIT students secured victory for the Institute for the first time in the Men's Munster University Road Relays on 8 November. The Ladies Team finished an excellent 2nd place in their category.

The CIT Sports Scholarships Presentation evening took place on 28 November. Seventy-eight student athletes across 18 different sports were presented with prestigious sports scholarships. Guest speaker was Olympic rowing silver medallist, Gary O'Donovan who was a recipient of the scholarship for the past four years.

The Institute's soccer team was successful in the final of the B cup on 7 March winning an extremely tough game against Limerick Institute of Technology.

CIT Sports Awards took place at Bishopstown Campus on 26 April. A wonderful gathering of students, staff, retired staff, coaches, parents, representatives from various Governing Bodies and friends gathered to applaud the valued contribution of Sports Clubs and their members in supporting the student-centred experience. The Institute recognised students who excelled in their chosen sport throughout the past academic year. Guest speaker was Ms Sinéad Kane, motivational speaker and columnist, and World Marathon Challenge Record Holder.

CIT GAA Club had significant results over the weekend of 7/8 May:

- Jessica O'Shea (Inch Rovers, Cork), MSc in Marketing Practice played a starring role for Cork Senior Ladies footballers in capturing their 5th consecutive National Senior Football League title.
- With a great team performance from the outset, CIT Senior Hurling Team won the 1st round of the Cork Senior Hurling Championship at Páirc Uí Rinn on 7 May.

G. Innovation and Research

On 22 November, UCC hosted the 2015 Invention of the Year Awards for the Technology Transfer Consortium between CIT, UCC and Teagasc. Each year, CIT Industry Liaison Office receives approximately 20 invention disclosures, the CIT short-listed nominations for 2015 were as follows and there was one CIT winner from each category:

ICT

Active displays with infrared backlight – Annemarie McCarthy, Stephen Hegarty and Liam Lewis, CAPPA

Auto-correction of the incident light power for fluorescence sensing system – Shijie Deng and Stephen Hegarty, CAPPA (Winner)

BIO

MicroPrep Kit – Brigid Lucey and James O'Connor, Biological Sciences

An engineered Lactococcus lactis vaccine and drug delivery platform – Roy Sleator, Cormac Gahan (UCC), Eamonn Culligan and Shauna Keane, Biological Sciences (Winner)

OrthoXel, a Rubicon based company was awarded the title of "Cork Emerging Company of the Year" at the Cork Chamber Annual Dinner on 3 February. The company is a medical device company focussed on the development and commercialisation of novel orthopaedic trauma devices.

An Innovation Voucher information event took place at the Institute on 23 February to promote the innovation voucher programme which was developed to build links between Ireland's HEIs and small businesses.

On 28 February, the Rubicon Centre and the Hincks Centre for Entrepreneurship Excellence secured €300,000 for trans-European research on optimising Regional Innovation Systems and Smart Specialisation. The project called ecoRIS3 – Policies and Measures to Support Regional Innovation Ecosystems is funded by the Interreg Europe Programme with partners in Spain, France, Portugal, Lithuania, Finland, Latvia and Italy.

The Visible Skills for Adults (VISKA) Project which is a €1.4million Erasmus+ funded project under the K3 Policy Experimentation strand was launched on 28 February. The three year project which is led by Skills Norway involves five other partners from Belgium - Flanders, Iceland and Ireland. CIT's Enterprise Engagement and Experiential Learning (E3LRG) Research Group was invited to be the research and evaluation partner for the project, the team comprises of Prof. Irene Sheridan, Deirdre Goggin, Prof. Margaret Linehan and Dr Rose Leahy.

Innovation week took place at the Institute from 6 to 10 March. The annual event, which is in its 6th year saw a week-long series of events and activities promoting entrepreneurship and innovation across the Institute. The highlight of the week was the Local Enterprise Offices CIT Prize for Innovation Competition 2017 which awarded €10,000 in prizes and a €3,000 Nimbus Research Centre Development Prize to those whose inventions and business ideas were judged most creative, novel, innovative and likely to succeed in the workplace.

The annual New Frontiers Entrepreneur Development Programmes Showcase and Awards took place in the Rubicon Centre on 25 April. The event marked the culmination of Phases 2 and 3 of the Enterprise Ireland funded New Frontiers Programme which is delivered by the Rubicon Centre. The promoters of new projects showcased their businesses in a public domain and were all presented with certificates marking their achievement in completing the intensive programme. The keynote address was given by Mr Joe Healy, Divisional Manager for High Potential Start-Ups, Enterprise Ireland.

The 31st Cork Mechanical, Manufacturing & Biomedical Engineering Exhibition took place on 27 April. Based on CIT's designation as International Space University 2017, the exhibition theme was "Space Engineering and Science". Combining entrepreneurship, multidisciplinary innovative product development and industrial participation, the exhibition is a seminal fixture in promoting engineering on a national/international level.

On 2 May, Science Foundation Ireland (SFI) announced that it will invest €72m over the next six years in four new world-class SFI Research Centres in Ireland. This announcement marked the third round of funding under the SFI Research Centres Programme. The CONFIRM Centre, for Smart Manufacturing IT and industrial automation systems, led by Prof. McCarthy, University of Limerick and includes Prof. Dirk Pesch, Nimbus Research Centre as the Principal Investigator (PI) was one of four new SFI Research Centres announced.

The Hincks Centre for Entrepreneurship Excellence hosted the 3E European Council for Small Businesses & Entrepreneurship (ECSB) Education Campus from 10 to 12 May. Approximately 120 delegates from Ireland, USA, Canada, South Africa, and Vietnam as well as the ECSB board and representatives from the United States Association for Small Business & Entrepreneurship (USASBE) gathered to debate and exchange their research and experiences of the major challenges and advances in entrepreneurship education. To coincide with the Rubicon's 10 year celebrations, delegates took part in a showcase and panel discussion on educating and supporting future entrepreneurs.

The Rubicon Centre celebrated 10 years in existence on 11 May. Guest Speaker was Ms Julie Sinnamon, CEO, Enterprise Ireland.

A new consortium, The Bridge Network was launched on 18 May at UCC. Led by UCC, the consortium comprises of four technology transfer offices from CIT, Teagasc, IT Tralee, and UCC. Funded by Enterprise Ireland under Technology Transfer Initiative 3 (TTSI) and supported by Knowledge Transfer Ireland, the Bridge Network consortium will apply its combined expertise to support the commercialisation of research, early stage spinout companies, licensing and ultimately effective relationships with industry.

The Institute hosted the Enterprise Ireland Student Entrepreneur Awards on 8 June. This year the awards attracted submissions from over 560 third-level students from colleges across Ireland.

The Institute hosted the International Space University 30th Space Studies Programme (SSP17) from 19 June to 18 August. The opening ceremony was held in City Hall on 26 June and the closing ceremony took place in County Hall on 25 August. The programme included nine weeks of lectures, education outreach activities, and more than 50 public events that brought in an estimated €2million to the Cork economy.

An intensive summer camp was held at the Institute from 14 to 18 August which immersed 50 second-level students in the world of entrepreneurship, creativity and innovation. The camp, now in its sixth year, was aimed at 14 to 16 year olds from schools across Cork City and County, Kerry, Waterford and Tipperary. The camp was hosted by the Hincks Centre for Entrepreneurship Excellence and was supported by the HEA Entrepreneurship, Creativity and Innovation Summer Camp programme 2017.

H. National Strategy for Higher Education

The Technological Universities Bill has yet to recommence its passage through the Oireachtas but it is believed that work to facilitate this is ongoing. There is an expectation that the Bill will be enacted at some stage during the 2017/18 academic year.

The MTU partners have continued to carry out project work where practicable but the passage of the TU Bill is a vital next step to allow for full implementation of the project.

Dr Brendan J. Murphy
President

1.3 Equality Statement

CIT is an equal opportunities employer. It is committed to the ongoing development of policies and procedures that do not discriminate on the grounds of gender, marital status, age, disability, race, colour, religious belief, ethnic origin or sexual orientation.

It will always work towards the elimination of unfair practices and promote and develop an ethos of equality within the Institute.

1.4 Irish Language and Culture

Under the terms of the Regional Technical Colleges Act (1992), and the Qualifications Act (1999), the Institute is obliged to have regard to the preservation, promotion and use of the Irish language and to the preservation and development of the national culture. There are particular responsibilities on CIT because included in its region are Gaeltacht areas. There is also a significant amount of second level education through Irish in the region to which the Institute wishes to be responsive. In addition, the sections of the Official Languages Act which were commenced by order of the Minister for Rural, Community and Gaeltacht Affairs, impose new obligations on the Institute.

1.5 Cork Institute of Technology and its Organisation Chart

CIT operates over four main sites located both in the city and county of Cork:

Bishopstown Campus situated in the western suburbs of Cork City
CIT Crawford College of Art & Design (CIT CCAD) situated in Cork City
CIT Cork School of Music (CIT CSM) situated in Cork City
National Maritime College of Ireland (NMCI) situated in Ringaskiddy, Co Cork

Bishopstown Campus

The main Campus of 35 hectares is situated in Bishopstown and includes the Faculty of Engineering & Science, Faculty of Business & Humanities, the main CIT Library, Sports Facilities and the offices of the President, the Registrar & Vice President for Academic Affairs, the Vice President for External Affairs, and the Vice President for Finance & Administration.

The Rubicon Centre and the Nimbus Research Centre are also located on this campus.

CIT Crawford College of Art & Design (CIT CCAD)

CIT CCAD is a listed building dating from the early 1900s located in Sharman Crawford Street and includes the departments of Art & Design Education, The Arts in Health & Community Practice, and Fine Art & Applied Art. The Department of Media Communications situated at the Bishopstown Campus is also part of the CIT CCAD.

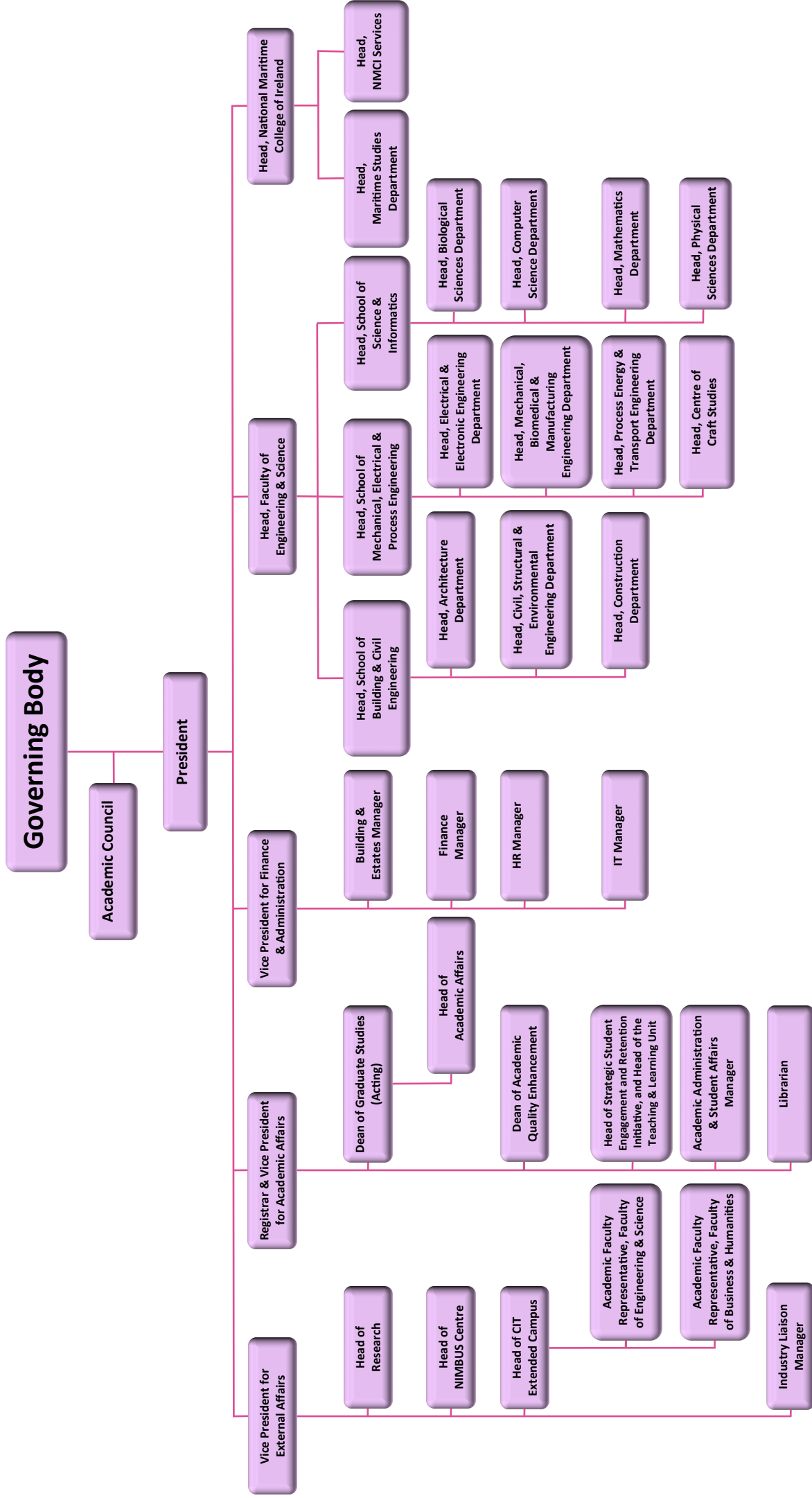
CIT Cork School of Music (CIT CSM)

The CIT CSM traces its history back to 1878 and it is now located in a state of the art facility since September 2007. It includes the departments of Keyboard Studies, Musicianship & Academic Studies, String Studies, and Wind, Percussion, Voice & Drama Studies.

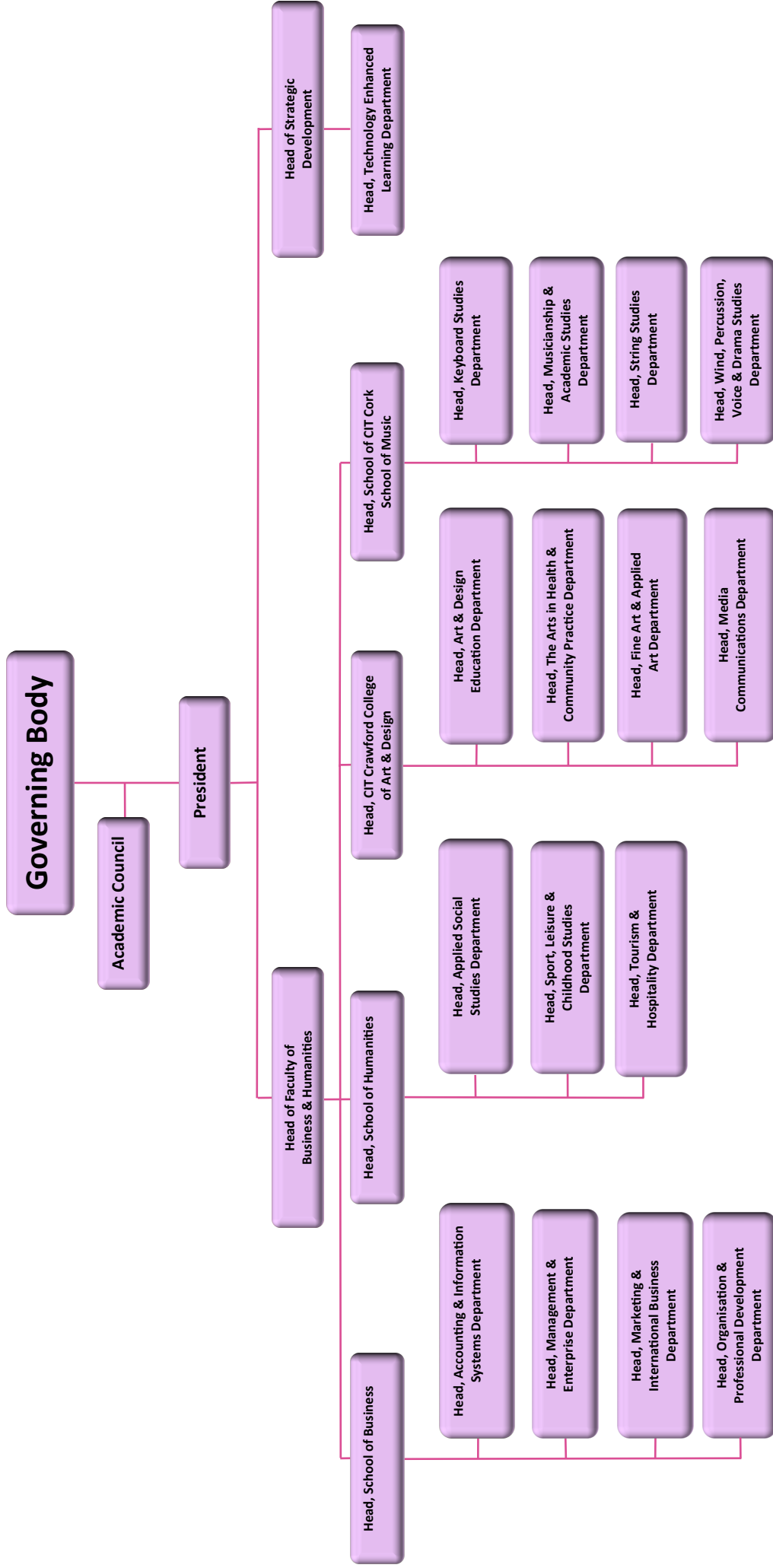
National Maritime College of Ireland (NMCI)

This state-of-the-art College operating since 2004 is located in Ringaskiddy, Co. Cork and provides training and education for the Merchant Marine and the non-military needs of the Irish Naval Service (INS). NMCI Services is the commercial arm of the College.

1.5 Institute's Organisation Academic Chart (1 of 2)



1.5 Institute's Organisation Academic Chart (2 of 2)



1.6 Special Units and Centres operating within the Institute

The following Centres and Unit operate under the auspices of the Vice President for External Affairs

1. Blackrock Castle Observatory (BCO)

Through BCO, CIT is changing positively attitudes towards science, engineering and technology in Ireland and aims to be recognised and respected as a centre of excellence in scientific research, education and outreach. BCO provides the people of Cork and the wider region with a centre of excellence in science that fosters interest in science, engineering and technology through the medium of astronomy. BCO has an annual throughput of over 100,000 visitors.

2. Clean Technology Centre (CTC)

The CTC, based at the Bishopstown Campus, was established in 1992 as a not-for-profit organisation, focusing on preventive approaches to environmental protection. How the CTC came into being and how it was supported is unique. In every country where a similar centre of excellence exists, they have been solely established by or in cooperation with local or national government. However, the creation of the CTC was primarily the result of the foresight of CIT and the demonstration of corporate social responsibility by industry.

The CTC is an independent body, whose mission is to advise and assist industry, government and society alike towards a more sustainable pattern of consumption and production. The integrity and reputation of CTC ensures its unbiased assessment of environmental issues. Its goal is to move consumption and production patterns towards more preventive approaches, through Cleaner Production and the use of Cleaner Technologies. Cleaner production brings economic, social, health, safety and environmental benefits. This has since been expanded to “sustainable production” which includes aspects such as corporate social responsibility.

Since its inception, CTC has become recognised as a centre of excellence in the field of environmental management and one of the leading Irish and European proponents of cleaner production and preventive approaches to environment protection. It has remained active in environmental research and consultancy, providing valuable advice and assistance to a wide range of clients, national and international. These include individual companies, sectoral groups, and umbrella industrial organisation. CTC has an industrial portfolio of over 250 companies. Other clients include local authorities, national agencies, Government Departments as well as several Directorates General of the European Commission. CTC has carried out over 120 environmental research projects with over 100 partners from more than 30 countries.

3. CREATE Centre

The Official Opening of the CREATE Centre took place on 6 June 2014. This new research building, known as CREATE (the Centre for Research in Advanced Therapeutic Engineering) is funded through the Higher Education Authority (HEA) under the Programme for Research in Third-Level Institutions, Cycle 5. The CREATE Centre occupies some 1,600m² over two stories and provides space to more than 60 researchers and their academic and business partners, at a cost of over €4million. Key partners in the project include University College Cork, Tyndall National Institute, Teagasc (Moorepark), and Cork University Hospital.

CREATE’s research focus is in the area of translational health research and combines the three complementary areas of biosciences, biomedical technologies and advanced bio-imaging to drive research in Advanced Therapeutic Engineering. It will facilitate a more blended approach to solving real world problems specifically provided by interdisciplinary teams of scientists with specialisations in physics, chemistry, biology, and biomedical engineering.

The multidisciplinary nature of this new research environment will drive excellent scientific discovery, and the transfer of that discovery to new and improved applications, and to the generation of patents, licences, and start-up companies in the region and nationally.

4. Nimbus Centre for Research in Embedded Networked Systems

The Nimbus Research Centre is a purpose built state of the art 1,800m² research building which forms the backbone of the Institute’s Strategic Research Cluster in Embedded Networked Systems. It is also Ireland’s only research centre devoted to

this field. The Nimbus Research Centre incorporates the Adaptive Wireless Systems Group, the Smart Systems Integration Group, and the Technologies for Embedded Computing Centre (TEC). The TEC Centre acts as the primary industry interface with the Nimbus Research Centre and provides a “one-stop-shop” for innovation in embedded systems for industry in the region. The Nimbus Research Centre provides industry with the opportunity to utilise the industry laboratories and access support programmes, and is home to over 80 staff, researchers and postgraduate students.

Nimbus Research Centre researchers have primary responsibility for the operation and exploitation of the National Sustainable Building Energy Testbed which was completed in 2013 at the Bishopstown Campus. The testbed, which is unique in Ireland, is part-funded in collaboration with United Technologies Research Centre, an American multinational corporation.

The Nimbus Research Centre also operates the Water Systems and Services Innovation facility, a collaboration with the Cork City and County Councils, and they also play a key role in the Mallow Systems Innovation Centre.

5. Rubicon Centre

The Rubicon Centre is CIT’s on-campus Incubation Centre. It is home to 50 knowledge based start-up companies at different stages of development. Some clients are at concept stage, others are completing their first customer orders, and many are already trading internationally. Since opening its doors in January 2006, the Rubicon Centre has quickly positioned itself as a catalyst for innovation and entrepreneurship in Cork. An extension to the building became operational in June 2010, increasing total incubation space to 2,100m². The Rubicon Centre’s role as an incubator is to assist the formation and growth of early stage, knowledge intensive businesses, by providing physical space, in-house management support, and access to advice and support from Institute resources. The Centre aims to stimulate an environment of creativity and innovation with a continual focus of nurturing the growth of knowledge-based business and commercial research in the South West Region.

6. Strategic Innovation Projects Unit

The Strategic Innovation Projects Unit was established to manage the CIT-led Strategic Innovation Fund (SIF) Projects *Education in Employment* (Cycle 1) and *Roadmap for Employment-Academic Partnerships* (Cycle 2). It involves a total of 9 institutes of technology (IoTs) and 2 universities as collaborating partners. The Unit also has responsibility for CIT’s involvement in a number of related SIF projects including the WIT-led *Knowledge Transfer in the Curriculum*, IoTI-led *Flexible Learning* Project, and the UL-led *IDEAS* project. In addition to managing the outcomes and financial aspects of the projects, the Unit is also responsible for dissemination of the project outcomes and for mainstreaming the partnership and engagement activities.

The following Centres operate under the auspices of the Head of the Faculty of Engineering & Science

1. BIO-EXPLORE Research Centre

The BIO-EXPLORE Research Centre is a multidisciplinary centre of researchers involving members from Biological Sciences, Chemistry, Applied Physics and Instrumentation, and Biomedical Engineering.

BIO-EXPLORE incorporates:

- MEDIC – the Medical Engineering Design and Innovation Centre. MEDIC is developing new instruments and approaches that will bring a number of medical product concepts to pre-commercialisation stage each year.

MEDIC has two top-level objectives: to enhance the Biomedical Engineering & Science Applied Research capability of CIT, and develop medical technologies and products that have commercial potential. MEDIC will develop these devices and technologies to a point where they are transferable to a commercialisation entity (e.g. an existing company via licensing agreement OR a spin off campus company).

MEDIC will focus on three research strands:

1. SMART surgical devices (integration of microelectronics into medical devices such as orthopaedic implants);
 2. Assistive Rehabilitation (use of gait analysis to develop products and technologies to support the rehabilitation of stroke victims and/or improve the physical development for cerebral palsy children);
 3. Therapeutic and Regenerative Medicine – focusing on orthopaedic bone grafts, neuro regenerative and antibacterial composites.
- Microbiology/virology research – concentrating on screening, isolation and testing of novel antimicrobial compounds which pose a potential threat to human health;

- Bioinformatics Research – concentrating on supporting the extraction of information from biological data banks;
- Food Research – concentrating on the control of fungal and bacterial contamination in dairy and meat products, extending shelf-life of fresh produce and the development of prebiotics;
- Mass Spectrometry and Bio-Actives Research – concentrating on the isolation, characterisation and use of bio-active compounds (including herbs) in a wide range of applications. The technique of mass spectrometry, in which the researchers are world-leaders, is used for much of the investigative research. CIT researchers in this field are at the forefront of food-borne biotoxin research in Europe.

2. The Centre for Advanced Manufacturing and Management Systems (CAMMS)

CAMMS is attached to the School of Mechanical, Electrical and Process Engineering. The Centre uses the design, build, test and validate expertise of these Departments in solving problems for industry and in delivering up to date training and education. Certifications available include City & Guilds, American Society for Quality, and the Society of Manufacturing Engineers. The Centre is an Associate Member of the International Institution for Production Engineering (CIRP) and a recognised Training Provider for Continuing Professional Development (CPD) to Engineers Ireland. Tailored courses can be delivered at place of work or at CIT.

3. Cork Centre for Architectural Education (CCAIE)

Established in 2006, CCAIE is a joint venture between CIT and UCC. Supported by Cork City Council and the architectural profession within the region, CCAIE represents a unique undertaking and a natural development of cross-institutional collaboration and partnership. It offers jointly awarded undergraduate and postgraduate degrees (taught and research) in Architecture.

4. Centre for Advanced Photonics & Process Analysis (CAPPA)

CAPPA conducts both applied and fundamental research on photonics for applications in areas as diverse as telecommunications, medical devices, food, and pharmaceutical manufacturing. Photonics is the generation and manipulation of light, and is a key enabling technology for a wide range of topics. CAPPA includes over 20 researchers and postgraduate students, and is housed in laboratories both on the Bishopstown Campus (moving to the new CREATE research building), and in the Tyndall National Institute as part of the CIT@Tyndall collaboration. Since 2008, it has been awarded over €10M in funding, from both exchequer and non-exchequer sources, including SFI, Enterprise Ireland, HEA, EU FP7, and industry, and has published over 60 papers in peer-reviewed journals. The EI-funded CAPPA Technology Gateway, a follow-on to the previous CAPPA Applied Research Enhancement Centre, has a specific remit to focus on industry engagement and collaborative applied research. CAPPA has had successful interactions with over 30 national and European companies, ranging from short-term consultancy for FMEA and Process Excursions to multi-year industrial and academic collaborative projects.

CAPPA is a partner in the recently funded Irish Photonic Integration Research Centre (I-PIC). This is one of seven Research Centres funded by SFI in 2013 in Ireland's largest ever state/industry research investment, totalling €300million over 6 years. CIT was the only Institute of Technology to be funded in the call. Within the €23million I-PIC centre, CAPPA will work on projects with 5 regional companies, both Multinational Companies (MNCs) and Small and Medium Enterprises (SMEs), as well as on core research relevant to all members of the centre.

The following Centre operates under the auspices of the Head of the Faculty of Business & Humanities

1. Hincks Centre for Entrepreneurship Excellence

CIT announced the creation of its new Centre for Entrepreneurship Excellence, the Hincks Centre, on 29 January 2013. In creating Ireland's first Centre for Entrepreneurship Excellence, CIT is extending its long-standing, strong, commitment to supporting the entrepreneurship drive at regional and national levels. CIT intends to address a gap in Ireland's current ability to train and provide support to all stakeholder groups who support and nurture entrepreneurship. The Hincks Centre will also address some key gaps in current research on entrepreneurship in the Irish context and will utilise these outputs to inform national policy and strategy.

The Hincks Centre will be focused on three pillars of activity: training entrepreneurship support staff and entrepreneurs; research on entrepreneurship in Ireland with a view to informing national policy; and education and accreditation of entrepreneurial educators. The combination of these strands of entrepreneurial focus will enable the future expansion of CIT's activity and will deliver even more added value to CIT's stakeholders.

Immediate priorities for the Centre include a ground-breaking new programme for upskilling staff in financial institutions to optimally support entrepreneurs across both start-ups and existing SMEs. The Hincks Centre will provide a novel programme dedicated to training staff in business incubators and enterprise support agencies. New research programmes will characterise the success and failure factors of start-ups, in the Irish context, in key areas such as sales and funding strategy. A "Train the Trainer" programme will be provided for lecturers and teachers of entrepreneurship. In addition to these new initiatives and existing activities, the Centre also plans to address the key emerging areas of Intrapreneurship and Spin-ins, Social Entrepreneurship, and Entrepreneurship at second-level schools.

The following Unit and Centre operates under the auspices of the NMCI

1. NMCI Commercial Services (NMCIS)

NMCIS is the Commercial division of the NMCI. Its goal is to achieve and deliver excellent quality service to its existing and future customer base. The services' primary function is to promote and support all commercial activities of the College. NMCIS has produced an annual commercial schedule of professional maritime short courses, listing all the short courses scheduled for the year. It also provides specialised group courses for companies in the industry. All its clients will be trained by quality professional mariners to the highest standards.

GAC Training & Service Solutions Limited (GTSS)

- GTSS, launched on 11 February 2010, is a joint venture company between GTSS and the NMCI. It provides cost saving and innovative training solutions for the Maritime, Transport and Commodity sectors. GTSS combines GAC's network, commercial contacts, expertise, and knowledge in global shipping, logistics and the marine industry with the superb facilities of NMCI. This partnership is focused on delivering a complete portfolio of training courses for both seafarers and shore-based shipping and commodity operations personnel. GTSS operates under the College's Commercial Division, NMCIS and is being coordinated on the ground by the GTSS Marketing Executive under the direction of the NMCI Services Manager in partnership with the GAC Vice President of Solutions. It has its own Board of Directors with key staff from both shareholders holding seats on the Board. The NMCIS Manager holds the position of Managing Director/Company Secretary.

SEFtec NMCI Offshore Limited (SNO)

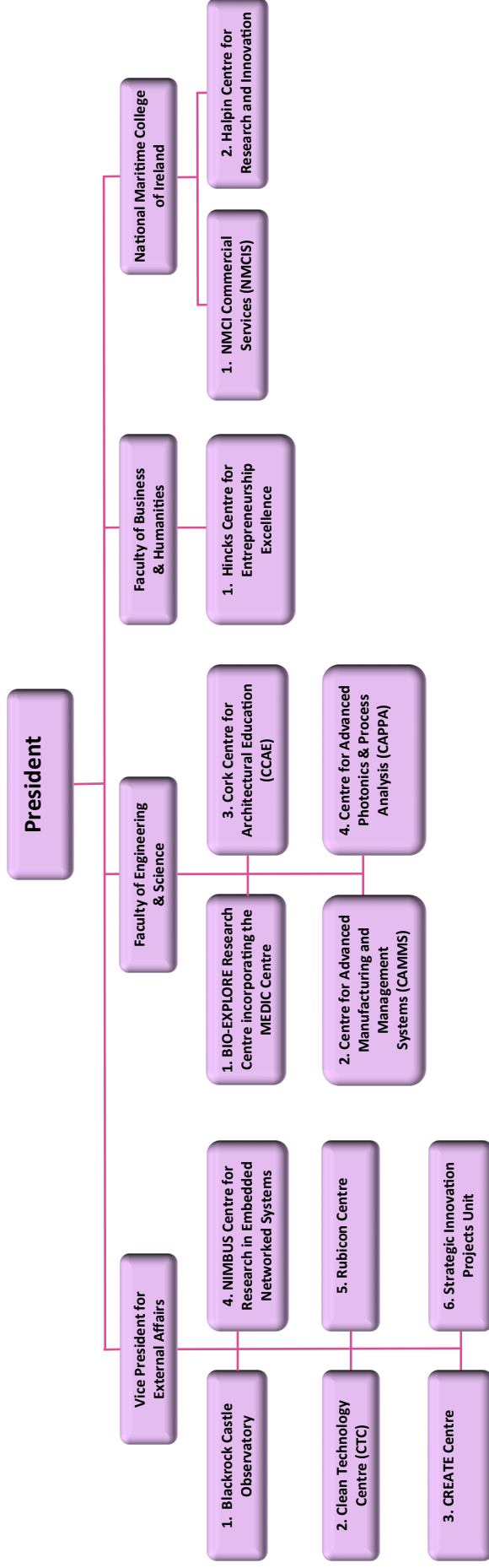
- SNO is a joint venture company between the NMCI and SEFtec Global Training Ireland Limited (SGT). Its primary role is as a vehicle to combine the offshore training expertise of SGT with the world class maritime training facilities at the NMCI in pursuit of OPITO (Offshore Petroleum Industry Training Organisation) standards and accreditation for courses for the offshore industry. SNO operates under the College's commercial division, i.e. NMCI Commercial Services (NMCIS), and is managed on the ground by the Offshore Course Coordinator under the direction of the NMCIS Manager. It has its own Board of Directors with key staff from both shareholders holding seats on the Board. The NMCIS Manager holds the position of Managing Director of SNO, the CIT Finance Manager is Company Secretary.

2. Halpin Centre for Research and Innovation

On 27 May 2013, Mr Seán Sherlock TD, Minister of State for Research & Innovation, officially launched the Halpin Centre at the NMCI. This exciting new development will further enhance the international reputation of the NMCI as a centre of maritime excellence. The launch completes the internal development of the NMCI which has three pillars of activity; Maritime Education and Training, Specialised and Bespoke courses for industry delivered through NMCI Services, and Research and Innovation activity through the Halpin Centre for Research and Innovation.

The Centre is an important pillar of the rapidly developing iMERC Campus at Ringaskiddy and as such will facilitate the research inputs of both CIT and the Irish Naval Service to the overall research effort in maritime and sustainable energy. It has enjoyed early success in attracting significant European research funding with the Centre involved in ten EU funded projects. The Centre is also working with Irish SMEs and multinational companies to assist them in developing new products and services and has international collaborators in Canada and throughout the EU. Advice and support from partners in UCC who have long been involved in Marine Renewable Energy has helped the Halpin Centre to engage quickly and effectively with that sector to secure projects concerning future training needs.

1.6 Special Units and Centres operating within the Institute and their relationship to the Institute’s Organisation Chart



1.7 Sports Facilities Development

Despite the expansion of the Institute in terms of student numbers from its opening in 1974, sports facilities, and in particular outdoor sports facilities were in short supply and consisted of a single GAA pitch, a rugby pitch and tarmac tennis courts in the mid 1990s.

To address this deficiency in sports facilities the Institute embarked on a decade long development which has transformed the Institute's sporting assets from humble beginnings to its present situation where CIT's outdoor sports facilities are the envy of the educational third-level sector throughout the country.

The initial phase of the sports development masterplan drawn up by Mr Michael Horgan of Horganlynch Consulting Engineers was the construction of a new rugby pitch located on the western side of the campus and adjacent to the GAA pitch. The construction of this pitch freed up the site of the old rugby pitch and a synthetic all-weather pitch was opened here in 2000. The success of the synthetic all-weather pitch which can accommodate hockey, soccer and GAA is evident by its constant use by students, staff, and external clubs and groups alike.

The next and most ambitious phase of the sports masterplan was the purchase for sports usage of approximately 8.91 hectares of land west of the Curragheen river on what was known as "Rock Farm". Due to its proximity to the river the land was low-lying and liable to flooding and so, for a period of approximately three years, a programme of filling took place to raise the general area by approximately two metres. On completion, the extensive network of ESB lines crossing the site was removed and this allowed the construction of six sand-based grass pitches for GAA, soccer and rugby. This brought the total number of grass playing pitches to nine when the athletics track infield is taken into consideration.

To service these pitches and to provide a state-of-the-art spectator venue, a covered seated stand was constructed in 2007 with a seated capacity of 1,150 along with six dressing rooms, referee's room, medical room, gymnasium, and social area.

Along with the developments listed above, three pitches have full floodlighting to allow night matches and training, and a synthetic carpet tennis court has also been constructed. Indoor sports and training are accommodated in a large and well-equipped sports hall and fully equipped gym, centrally located on campus.

Minister for Enterprise, Trade and Innovation, Mr Batt O'Keeffe TD officially opened the New Stand at the Institute's Sports Complex, Bishopstown on 4 June 2010.





In the 2010/2011 academic year, the Institute featured prominently in a number of events and numerous successes. Its excellently prepared sports grounds and facilities played host to numerous competitions throughout the year including schools matches, schools Cork County Camogie Final, Cork City Sports, GOAL Mile, the Munster Schools & Universities Cross Country Championships, WSCAI Intervarsities, Kayaking Intervarsities, Novice Boxing Intervarsities, and the All-Ireland Colleges Rugby Finals. CIT provided training facilities for a number of intercounty teams including the Cork Ladies Footballers and Camogie Teams, from under-age to Senior Level, Cork Kennedy Cup Team, Schools of Excellence in Camogie, Ladies Soccer, and GAA.

In May 2011, CIT signed a 4-year agreement with Munster Rugby which saw the Cork-based members of the professional Munster Squad and Academy headquartered at CIT's Elite Gym on its Bishopstown Campus.

As well as catering for the competitive athlete, the Institute places a big emphasis on participation and fun and this is reflected in the growing numbers of students who take part.

In January 2012, CIT signed an agreement with the Cork County Board which saw the Cork Senior Hurling Panel headquartered at CIT's Bishopstown Campus. They utilise the sports and ancillary services at CIT for their training and development.

CIT has a long and successful tradition of helping to produce some of Ireland's finest sporting talent. This is a tradition it seeks to strengthen and progress by significantly supporting the Elite Student Athlete and High Performance Teams.

Throughout the 2016/17 academic year, CIT's excellently prepared sports grounds and facilities played host to numerous competitions including in athletics the International Cork City Sports, the Cork National School Sports and the annual GOAL Mile. An amazing 576 participants took part in this year's "Rebel Run" co-hosted by CIT Sports Office. The CIT Astro-turf pitch got a super new upgrade. CIT provided training facilities for a number of teams including the Cork Senior Hurlers, Cork Camogie, Cork Development Squad, and Cork City Soccer.

To underline its commitment to Sport, CIT annually awards Sports Scholarships to a wide range of sports for Seniors and Freshers. The Sports Scholarships range in value from €500 to €1,000. For the academic year 2016/17, the following scholarships were awarded at a presentation evening on 28 November 2016:

- 78 CIT Sports Scholarships including 30 Freshers/Development and 36 Senior
- 12 Munster Council GAA Scholarships

Sports represented included athletics, basketball, boxing, camogie, Gaelic football, kickboxing, hockey, hurling, karate, ladies football, racquetball, rowing, orienteering, taekwondo, rock-climbing, sailing, and soccer.

This year the guest speaker, Olympic Rowing Silver Medalist Gary O'Donovan, performed the presentations. Gary has been a CIT Sports Scholarship recipient for the past four years.

Both male and female athletes from 18 different sports were recipients. CIT allocates sports scholarships annually to students who display a high level of achievement and are excellent ambassadors to CIT in their chosen sport. The standard, and competition for scholarships is exceptionally high with the scheme designed to help students reach their full potential, both in their sport and also in their academic careers.

For the third year, the Institute hosted the Cork Primary Schools Sports on 1 June 2017. The event took place on the Athletics Track, and in the Sports Stadium, and was a tremendous success for everyone in what is the largest voluntary sports event in Europe. This was the 93rd year in what is a truly unique event. In 1924, the inaugural sports was held in the Mardyke with some 350 children participating. It is a landmark day in the calendar of every primary school in Cork City and County and it is an important event for CIT as the Institute gets extensive and very positive exposure in every Primary School.

Approximately 5,000 primary school children competed, and it is estimated a crowd in excess of 20,000 comprising parents, grandparents, siblings, neighbours, and teachers were there to support them over the entire day.

CIT agreed to host this large-scale event on behalf of Lúthchleasa Bhunscoileana Chorcaí.



CIT BISHOPSTOWN CAMPUS



CREATE BUILDING, CIT BISHOPSTOWN CAMPUS

2. Governance

Cork Institute of Technology

- 2.1 Annual Governance Statement 2016/2017**
- 2.2 Membership of Governing Body**
- 2.3 Governing Body Meetings**
- 2.4 Governing Body Expenses**
- 2.5 Institute Executive Board (IEB)**
- 2.6 Institute Senior Staff**

2.1 Annual Governance Statement – Academic Year 2016/2017

We are pleased to present the Annual Governance Statement for Cork Institute of Technology in accordance with the Code of Governance of Irish Institutes of Technology.

We set out the Annual Governance Statement in accordance with section 2.11 of the Code of Governance of Irish Institutes of Technology 2012 and section 1.9 of the Business and Reporting Requirements of the State Code 2016.

Code of Governance (Ref: 2.11.4 (i) and 1.9 (xv))

The Code of Governance of Irish Institutes of Technology – as amended to reflect the 2009 Code of Governance of State Bodies (January 2012) was formally approved by the Institute’s Governing Body on 2 February 2012. A letter was sent from the President to the HEA on 3 February 2012 confirming that the Institute’s Governing Body had adopted the new Code.

The Institute is currently engaged in a process with the HEA and THEA to develop a Code of Practice that will be compliant with the 2016 State Code. It is expected that this code will be finalised and adopted during the 2017-2018 academic year.

The Governing Body is satisfied however that the Institute is generally compliant with the provisions of the 2016 State Code unless otherwise stated.

Codes of Conduct (Ref: 2.11.4 (i) and 1.9 (v))

Governing Body members adopted a Code of Business Conduct at its meeting of 7 July 2011. A Code of Conduct for Employees was approved by Governing Body on 4 December 2014. Codes of conduct are circulated annually to remind staff of their obligations. CIT Codes of Conduct include procedures for reporting suspected breaches of applicable laws, regulations and/or the Code of Conduct.

Significant Financial Developments (Ref 2.11.4 (ii) and 1.9 (i))

A new subsidiary CIT Consortium Projects DAC was formed during the period.

The Institute did not carry out any investigations during the period.

Government Policy on Pay (Ref 2.11.4 (iii) and 1.9 (vi))

The Government policy on pay is being complied with by the Institute. There are a number of staff engaged in Research and Development that are not currently aligned with nationally agreed scales, however all appointments are approved by Governing Body and the Institute has a Remuneration and Entitlement Review Group in place.

Procedures carried out for: Financial Reporting, Internal Audit, Procurement and Asset Disposal (Ref 2.11.4 (iv) and 1.9 (iii))

Financial Reporting

Annual financial close and reporting processes are in place and are subject to audit by the Comptroller & Auditor General.

Internal Audit

Cork Institute of Technology has outsourced its Internal Audit function. The function operates in accordance with the Code of Governance of Institutes of Technology and reports directly to the Audit Committee. The annual internal audit plan is informed by issues and concerns raised by management in addition to an analysis of the risk to which the Institute is exposed and annual internal audit plans are based on this analysis. The annual internal audit plan is approved by the Audit Committee. The Internal Auditors provide the Audit Committee with a report on each internal audit activity. The report reflects the Internal Auditors’ opinion on the adequacy and effectiveness of the system of internal control within the scope of the areas that have been audited.

Procurement

The Institute’s procurement procedures are in line with the national guidelines for public procurement and the requirements of the Office of Government Procurement (OGP) and Guidelines on Achieving Value for Money in Public Expenditure, as set

out by the Minister for Finance on 20 October 2005. Procurement exceptions are brought to the attention of Governing Body through the Finance Committee. There were three exceptions during the period:

- Subvention to Cosmos Education
- Subvention to Innovation Centre
- Research Grants to Third Parties

Asset Disposal

The Institute has put in place policies and procedures for the disposal of assets and access to assets by third parties. A revised Fixed Asset Policy was approved by Governing Body on 5 November 2015. Decisions on asset disposal and the granting of access to assets by third parties are considered by the Institute's Executive Board and approved by its Governing Body. There were no significant asset disposals or granting of access to assets by third parties during the year. The Institute confirms that it has complied with disposal procedures as outlined in Section 3.5 Guidelines for Best Practice in Asset Disposal and Access to Assets by Third Parties.

Off Balance Sheet Transactions (Ref 1.9 (ii))

The Institute had no off balance sheet transactions during the period.

Trusts and Foundations (Ref HEA Template 8)

The Institute had no off balance sheet transactions during the period.

Guidelines for the Appraisal and Management of Capital Proposals (Ref 2.11.4 (v))

The Guidelines for the Appraisal and Management of Capital Proposals are being adhered to by the Institute.

Travel Policy (Ref 2.11.4 (vi) and 1.9 (xii))

The Government Policy on Travel is being complied with by the Institute.

Value for Money (Ref 2.11.4 (vii))

The Institute is very cognisant of the need to continue to promote the achievement of efficiencies as per the Guidelines on Achieving Value for Money in Public Expenditure (as set out in the address by the Minister for Finance of 20 October 2005), while also improving the quality of service it delivers. Requirements are identified and prioritised and resources allocated to meet these requirements in a cost effective and efficient manner. The Office of Government Procurement ("OGP") was established by the Government to integrate procurement policy, strategy and operations into a centralised office with the aim of reducing procurement risk and enabling savings for public service bodies across the State. The OGP is headed by the Government's Chief Procurement Officer, and operates as an office of the Department of Public Expenditure and Reform. The Institute is complying with Department of Public Expenditure & Reform circular (06/12) which has made the use of National Procurement Frameworks mandatory for the Higher education sector in the following areas with effect from 1st September 2012:

Stationary and Office Supplies

Paper

Janitorial Supplies

ICT Consumables

Managed Print Services

Advertising (Print Media)

Motor Vehicles

Energy (Electricity & Gas)

Compliance with Tax Laws (Ref 2.11.4.7 and 1.9 (xiii))

The Institute employed Deloitte to carry out a Tax Compliance review and can confirm that, to the best of its knowledge, has complied with its obligations under tax law.

Legal Disputes (Ref 1.9 (xiv))

The Institute and one of its joint venture companies SEFTEC NMCI Offshore Ltd have issued judicial review proceedings concerning Marine Notice No. 06 of 2017 published by the Department of Transport, Tourism and Sport on 13 February 2017.

Corporate Procure Plan (Ref 2.11.4 (ix))

A Corporate Procurement Plan was approved by Governing Body on 6 July 2017. All purchasing staff within the Institute are fully conversant with the public procurement guidelines. The Governing Body is satisfied that the Institute is compliant with all relevant guidelines regarding procurement.

Child Protection Policy

The Institute confirms that it has a Child Protection Policy in place which was approved by Governing Body on 4 December 2014.

Confidential Disclosure Faith Reporting – Protected Disclosures Act 2014 (Ref 3.1.1.17 and 1.9 (xi))

The Institute confirms that it has a Disclosures Policy in place. This policy was approved by Governing Body on 26 March 2015. The Institute also has a Fraud Policy in place approved by Governing Body on 26 March 2015.

Governing Body Meetings

In accordance with section 6.2 of the Regional Technical Colleges Act 1992, the Governing Body comprises of 19 members (including the Chairperson and President). The current Governing Body's term of office commenced on 1 April 2015. The Chairperson was re-appointed for a period of five years by the Minister for Education & Skills with effect from 11 August 2016.

Regular Governing Body Meetings

The Governing Body meet regularly to discuss, advise and challenge the goals and activities of the Cork Institute of Technology. Governing Body meetings are well attended by members and all members are given the opportunity to express their views. Meetings are minuted and these are reviewed and approved at the next meeting where issues arising are followed up on. The three Vice Presidents attend Governing Body meetings.

The Governing Body met 11 times during the 2016-2017 year and on the following page are the schedules of attendance.

No.	Governing Body Member	Attendance at Governing Body Meetings										
		6 Oct 2016	6 Oct 2016 (Special Mtg)	1 Dec 2016	2 Feb 2017	2 Mar 2017	6 Apr 2017	1 Jun 2017	12 Jun 2017 (Special Mtg)	16 Jun 2017 (Special Mtg)	23 Jun 2017 (Special Mtg)	6 July 2017
1	Mr Bob Savage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Dr Brendan J. Murphy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	Mr Bernard Allen	✓	✓	✓	✓	X	X	✓	✓	✓	✓	✓
4	Ms Mary Cooney	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓
5	Mr Eoin Deane	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓
6	Ms Emelie Fitzgibbon	✓	✓	✓	✓	✓	✓	✓	X	X	✓	✓
7	Ms Maura Fitzgibbon	✓	✓	X	X	✓	X	✓	X	X	✓	✓
8	ClIr Mary Hegarty	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓
9	ClIr Michael Hegarty	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	✓
10	Capt. Dave Hopkins	X	X	✓	✓	X	X	✓	✓	✓	X	✓
11	ClIr Patrick Gerard Murphy	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓
12	Mr Declan O'Leary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13	Mr Cilian Ó Súilleabháin	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓
14	Mr Ted Owens	X	X	✓	✓	✓	X	✓	✓	✓	X	✓
15	Ms Ann Piggott	✓	X	✓	✓	X	✓	✓	✓	✓	✓	X
16	Ms Katherine Walshe	✓	X	✓	✓	✓	X	X	✓	X	X	X
17	Mr Jim Woulfe	✓	✓	✓	✓	✓	✓	✓	X	✓	X	✓
18	Ms Ruth O'Leary, Student Nominee from 1/10/2016 to 31/05/2017	✓	✓	✓	✓	✓	✓					
19	Mr Shane Falvey, Student Nominee from 1/10/2016 to 31/05/2017	✓	✓	✓	✓	✓	✓					
20	Ms Stephanie Kelly, Student Nominee from 1/06/2017 to 31/05/2018							✓	✓	✓	✓	✓
21	Mr Sam Dawson, Student Nominee from 1/06/2017 to 31/05/2018							✓	✓	✓	✓	✓

Audit Committee Meetings

Audit Committee

The Institute's Audit Committee has an Audit Committee Charter that was approved by the Governing Body. The Audit Committee Charter (Terms of Reference) were reviewed and updated during 2015-2016 and were approved by the Governing Body on 30 June 2016. The Committee received Audit Committee Induction Training at their meeting of 22 October 2015. The Audit Committee meet at least 4 times per year as per the Audit Committee Charter to fulfil its responsibilities as set out in the Charter. The Audit Committee reports to the Governing Body on its work and any issues of concern after each meeting and also submits an Annual Report. The Audit Committee meets with the Head of Internal Audit at least once a year and also with staff from the Comptroller & Auditor General's office.

Internal Audit

The Institute has an established Internal Audit Function in place which complies with the professional standards of the Institute of Internal Auditors UK & Ireland. The Governing Body approved its Internal Audit Charter. An annual Internal Audit programme is developed and approved by the Governing body Audit Committee and the Internal Audit function reports back to the Audit Committee on its findings.

The Audit Committee met 5 times during the 2016-2017 year and below is the schedule of attendance.

Date	Attendance ✓				
	13 October 2016	17 November 2016	19 January 2017	23 March 2017	16 June 2017
Mr Jim Woulfe	✓	✓	✓	✓	✓
Mr Declan O'Leary			✓	✓	✓
Ms Maura Fitzgibbon			✓		
Mr Bernard Allen	✓	✓	✓		✓
Mr Cillian Ó Súilleabháin	✓	✓	✓	✓	✓

Review of Governing Body Performance

The Institute commissioned the IPA to assist the Governing Body in undertaking a self-evaluation review during the 2016-2017 year.

Salary of President

The Institute confirms that a salary of €67,719 was paid to the President for the financial year 2016-2017.

Governing Body Expenses

The Institute confirms that fees and expenses paid to members of the Governing Body are in accordance with guidelines from the Department of Finance.

Schedule of fees

Interview €300 per day

Expenses per Department of Finance

Member	Travel Expenses	Interview Costs	Total Costs
Mr Bernard Allen	€205.40	€7,200.00	€7,405.40
Cllr Mary Hegarty	€1,178.89	€9,900.00	€11,078.89
Ms Katherine Walshe	€329.04	-	€329.04
Cllr Patrick Gerard Murphy	€524.43	€1,200.00	€1,724.43
Mr Declan O'Leary	-	€300.00	€300.00
TOTAL	€2,237.76	€18,600.00	€20,837.76

Governing Body expenses are presented as a separate item in the Annual Report.

Subsidiaries

Institute subsidiaries continue to operate solely for the purpose for which they were established. The Code of Governance for Subsidiaries was developed at a sectoral level. The Governing Body approved the Institutes of Technology Subsidiary Governance Code at its meeting of 30 June 2016. All subsidiaries of the Institute provide a subsidiary level internal control statement on an annual basis.

On behalf of the Governing Body

Mr Bob Savage
Chairman of the Governing Body
Date: 30th January 2019



Dr Barry O'Connor
President
Date: 30th January 2019

2.2 Membership of Governing Body

The composition of the Governing Body is determined by the Regional Technical Colleges Acts, 1992 and 1994. The ordinary members with the exception of the two student representatives are appointed for a period of five years.

The two student representatives are appointed for a period of one year up to 31 May 2017.

The membership of the Governing Body from 1 September 2016 is as follows:

Mr Bob Savage, Chairman
(Nominee of the Minister for Education and Skills)

Dr Brendan J. Murphy, President, CIT
(Ex Officio)

Governing Body members as per Section 4 of the 1994 Act.

Six appointed under Section 4(1)(a) and (b)

Ms Maura Fitzgibbon (Nominee of the Cork ETB)
Cllr Mary Hegarty (Nominee of the Cork ETB)
Cllr Michael Hegarty (Nominee of the Cork ETB)
Cllr Patrick Gerard Murphy (Nominee of the Cork ETB)
Mr Declan O'Leary (Nominee of the Cork ETB)
Mr Ted Owens (Nominee of the Cork ETB)

Two appointed under Section 4(1)(c)

Ms Mary Cooney (Academic Staff Nominee)
Mr Cilian Ó Súilleabháin (Academic Staff Nominee)

One appointed under Section 4(1)(d)

Mr Eoin Deane (Non-Academic Staff Nominee)

Two appointed under Section 4(1)(e)

Mr Shane Falvey (Nominee of Students' Union) up to 30 September 2016
Ms Ruth O'Leary (Nominee of Students' Union) up to 30 September 2016
Shane Falvey (Nominee of Students' Union) up to 31 May 2017
Ms Ruth O'Leary (Nominee of Students' Union) up to 31 May 2017
Mr Sam Dawson (Nominee of Students' Union) up to 31 May 2018
Ms Stephanie Kelly (Nominee of Students' Union) up to 31 May 2018

One appointed under Section 4(1)(f)

Ms Ann Piggott (Nominee of the Irish Congress of Trade Unions)

Five appointed under Section 4(1)(g)

Mr Bernard Allen (Nominee of The Irish Sports Council)
Ms Emelie Fitzgibbon (Nominee of The Arts Council)
Capt. Dave Hopkins (Nominee of the Irish Chamber of Shipping)
Ms Katherine Walshe (Nominee of Engineers Ireland)
Mr Jim Woulfe (Nominee of Cork Chamber). Mr Woulfe resigned on 18 July 2017

2.3 Governing Body Meetings

During the period from 1 September 2016 to 31 August 2017, the Governing Body met on eleven separate occasions which included four special meetings. They met on the following dates:

Thursday 6 October 2016

Thursday 6 October 2016 (Special meeting)

Thursday 1 December 2016

Thursday 2 February 2017

Thursday 2 March 2017

Thursday 6 April 2017

Thursday 1 June 2017

Monday 12 June 2017 (Special meeting)

Friday 16 June 2017 (Special meeting)

Friday 23 June 2017 (Special meeting)

Thursday 6 July 2017

2.4 Governing Body Expenses

The Institute confirms that fees and expenses paid to members of the Governing Body are in accordance with guidelines from the Department of Finance.

Schedule of fees

Interview €300 per day

Expenses per Department of Finance

Member	Travel Expenses	Interview Costs	Total Costs
Mr Bernard Allen	€205.40	€7,200.00	€7,405.40
Cllr Mary Hegarty	€1,178.89	€9,900.00	€11,078.89
Ms Katherine Walshe	€329.04	-	€329.04
Cllr Patrick Gerard Murphy	€524.43	€1,200.00	€1,724.43
Mr Declan O'Leary	-	€300.00	€300.00
TOTAL	€2,237.76	€18,600.00	€20,837.76

2.5 Institute Executive Board (IEB)

The Institute Executive Board is a non-statutory committee of the Institute. The role of the Institute Executive Board is to assist the President in the management of the Institute and in formulating Institute strategy and policy for approval by the Governing Body.

The composition of the Institute Executive Board is as follows:

Dr Brendan J. Murphy, President
Dr Orla Flynn, Vice President for External Affairs
Mr Paul Gallagher, Vice President for Finance & Administration
Mr Tadhg Leane, Head of Strategic Development
Mr Michael Loftus, Head of Faculty of Engineering & Science
Dr Barry O'Connor, Registrar & Vice President for Academic Affairs
Mr Gerard O'Donovan, Head of Faculty of Business & Humanities

The Institute Executive Board meet on a monthly basis and at such other times as deemed necessary. It is chaired by the President or by the President's nominee from within the Board. A recording secretary is present at all meetings to record agreed actions. Action lists from the meetings are circulated to the Governing Body and are available to staff on the staff intranet (Gateway).

2.6 Institute Senior Staff

The Cork School of Music, the Crawford College of Art & Design and the National Maritime College of Ireland are constituent schools of Cork Institute of Technology.

President Dr Brendan J. Murphy, BA, MA, PhD, FSS, FICS, CEng, FIEI

Institute Executive Board

Vice President for External Affairs Dr Orla Flynn, MA, MSc, PhD, MICS, MIDI

Vice President for Finance & Administration Mr Paul Gallagher, MSc, FCMA

Head of Strategic Development Mr Tadhg Leane, BA, MSc

Head of Faculty of Engineering & Science Mr Michael Loftus, BE, MEngSc, MICS

Registrar & Vice President for Academic Affairs Dr Barry O'Connor, BE, MEngSc, PhD, BCL, CEng, MIEI

Head of Faculty of Business & Humanities Mr Gerard O'Donovan, BComm, MBA, MMII, MICS

BISHOPSTOWN CAMPUS:

FACULTY OF ENGINEERING & SCIENCE

Head of Faculty Mr Michael Loftus, BE, MEngSc, MICS

School of Building & Civil Engineering:

Head of School Dr Joseph Harrington, BE, MS, PhD, CEng, FIEI, EurIng, PE

Head of Department of Architecture Ms Katherine Keane, BSc in Arch, MArch, ARIAI

Head of Department of Civil, Structural & Environmental Engineering Mr Desmond Walsh, BE, MSc, DIC, CEng, MIEI, MICE

Head of Department of Construction Dr Daniel Cahill, MSc, PhD, MRICS

School of Mechanical, Electrical & Process Engineering:

Head of School Dr Matt Cotterell, BE, MED, CMfgE, MIEI, AMIMEchE, PhD

Head of Department of Electrical & Electronic Engineering Dr Joe Connell, BSc (Eng), MSc (Eng), PhD, CEng, FIEI, MIEEE

Head of Department of Mechanical, Biomedical & Manufacturing Engineering (Acting) Prof. Gerard Kelly, BE, MEngSc, PhD

Head of Department of Process, Energy & Transport Engineering Dr Michael J. O'Mahony, BE, MEngSc, PhD, MIEI

Centre of Craft Studies Mr Michael Hourihan, BSc, Senior Trades, C & G

School of Science & Informatics:

Head of School	Prof. Hugh McGlynn, BSc, PhD, FHEA
Head of Department of Biological Sciences	Dr Brendan O'Connell, BSc (Hons), PhD
Head of Department of Computer Science	Mr Tim Horgan, BTech, MSc
Head of Department of Mathematics	Dr Áine Ní Shé, BEd, MA, PhD, LRSM, LTCL
Head of Department of Physical Sciences (Acting)	Dr Donagh O'Mahony, BSc, PhD

NMCI:

Head	Mr Conor Mowlds, BSc, GDip, CMILT
Head of Department of Maritime Studies	Mr Vivion Gough, Class 1 Mariner (Unlimited)
Head of NMCI Services	Mr James O'Byrne, Class 1 Certificate of Competency Motor (Chief Engineer)

FACULTY OF BUSINESS & HUMANITIES

Head of Faculty (Acting)	Mr Gerard O'Donovan, BComm, MBA, MMII, MICS
--------------------------	---

School of Business:

Head of School (Acting)	Mr Brian McGrath, BComm, FCA, MMII
Head of Department of Accounting & Information (Acting) Systems	Ms Catherine Murphy, BComm, MComm
Head of Department of Management & Enterprise (Acting)	Ms Caroline O'Reilly, BComm, MBus
Head of Department of Marketing & International Business	Dr Pio Fenton, BSc, PhD
Head of Department of Organisation & Professional Development	Mr Don Crowley, BBus, GDE(B), Grad. Dip IT

School of Humanities:

Head of School	Prof. Margaret Linehan, BBus, MBus, PhD
Head of Department of Applied Social Studies	Mr Jim Walsh, BA, HDipEd, BCL, LLB, MEMI
Head of Department of Sport, Leisure & Childhood Studies	Dr Cian O'Neill, BSc, PhD
Head of Department of Tourism & Hospitality	Dr Noel Murray, BBS, HDipEd, MBS, PhD

CIT CCAD:

Head	Ms Catherine Fehily, BA, MA
Head of Department of Art & Design Education	Mr Albert Walsh, MEd, Dip ADT, ND Design
Head of Department of the Arts in Health & Community Practice	Mr Edward Kuczaj, MA, Dip Art Th, RNMS

Head of Department of Fine Art & Applied Art

Ms Trish Brennan, MA, BA

Head of Department of Media Communications

Ms Rose McGrath, MA, Dip Ed, BDes

CIT CSM:

Head of School

Ms Aiveen Kearney, MA, BMus, HDE, ATCL

Head of Department of Keyboard Studies

Dr Gabriela Mayer, DMA, MMus, BMus, Dip Berlin Hochschule

Head of Department of Musicianship & Academic Studies

Ms Maria Judge, BMus, Dip Kodály Intézet Hungary

Head of Department of String Studies

Ms Joan Scannell, MA, BMus, DipCSM, LTCL

Head of Department of Wind, Percussion, Voice & Drama Studies

Mr John O'Connor, MA, BMus, HDE, FTCL, LRSM

Other Senior Positions

Head of Strategic Student Engagement and Retention Initiative, and Head of the Teaching and Learning Unit

Ms Marèse Bermingham, BComm, HDipEd, HDipGC, MIGC

Dean of Academic Quality Enhancement, and Acting Dean of Graduate Studies

Dr Stephen Cassidy, BE, MEngSc, PhD, CEng, Eur Ing, MIEI

Head of Department of Technology Enhanced Learning

Dr Gearóid Ó Súilleabháin, BA, MSc(Econ), MA, PhD

Head of Nimbus Research Centre

Prof. Dirk Pesch, Dipl.Ing, PhD, IEEE, IEI, ACM

Head of Research

Dr Niall Smith, BSc, PhD

SCHOOL OF GRADUATE STUDIES

Dean of Graduate Studies (Acting)

Dr Stephen Cassidy, BE, MEngSc, PhD, CEng, Eur Ing, MIEI

Head of Academic Affairs

Prof. Noel Barry, BE, ME, PhD, CEng, MIEI, MPES, MIAS

CIT EXTENDED CAMPUS

Head

Prof. Irene Sheridan, BE, MEngSc, PhD

Academic Faculty Representative, Faculty of Engineering & Science

Mr Daithí Fallon, BE, MEngSc, CEng, MIEI, CQE

Central Services Managers

Finance Manager

Ms Ellen Crowley, BSc, ACA, MA

Human Resources Manager

Ms Deirdre Casey, Dip HR, FCIPD, MII

Academic Administration & Student Affairs Manager

Dr Dan Collins, MEd, BA, BD, PhD

Buildings & Estates Manager

Mr Kevin McCarthy, MSc, CEng, MIEI

IT Manager

Mr Jonathan McCarthy, BSc, MA, PostgradDip

Industry Liaison Manager

Ms Josette O'Mullane, BComm, ACMA

Librarian

Ms Jean Ricken, BA, MLSI



CIT CCAD 46 GRAND PARADE

3. Academic & Student Affairs

Cork Institute of Technology

- 3.1 Academic Council Membership
- 3.2 Academic Council Executive Committee Membership
- 3.3 Academic Council Committees
- 3.4 Academic Development
- 3.5 Approved Courses – Full-Time
- 3.6 Fáilte Ireland and Craft Approved Courses
- 3.7 Approved Courses – Part-Time
- 3.8 Validating Authorities
- 3.9 External Examiners
- 3.10 Student Statistics
- 3.11 Student and Graduate Prizes & Achievements
- 3.12 Student Ombudsman
- 3.13 Access Service Report

3.1 Academic Council Membership

The current members of the Academic Council were appointed in June 2016 and will continue in office for a period of three years.

The Academic Council met on seven occasions during the period 1 September 2016 to 31 August 2017 as follows:

Friday, 7 October 2016

Wednesday, 9 November 2016

Wednesday, 14 December 2016

Friday, 10 February 2017

Wednesday, 15 March 2017

Friday, 5 May 2017

Friday, 16 June 2017

PRESIDENT

Brendan J. Murphy

SENIOR ACADEMIC STAFF

Áine Ní Shé	Head of Department of Mathematics
Aiveen Kearney	Head of School, CIT CSM
Albert Walsh	Head of Department of Art & Design Education, CIT CCAD
Brendan O'Connell	Head of Department of Biological Sciences
Brian McGrath	Head of School of Business
Caroline O'Reilly	Head of Department of Management & Enterprise (Acting)
Catherine Fehily	Head of CIT CCAD
Catherine Murphy	Head of Department of Accounting & Information Systems (Acting)
Cian O'Neill	Head of Department of Sport, Leisure & Childhood Studies
Conor Mowlds	Head of College, NMCI
Daithí Fallon	Academic Faculty Representative, Faculty of Engineering and Science, CIT Extended Campus
Daniel Cahill	Head of Department of Construction
Desmond Walsh	Head of Department of Civil, Structural & Environmental Engineering
Dirk Pesch	Head of Nimbus Research Centre
Don Crowley	Head of Department of Organisation & Professional Development
Edward Kuczaj	Head of Department of the Arts in Health & Community Practice CIT CCAD
Gabriela Mayer	Head of Department of Keyboard Studies, CIT CSM
Gearóid Ó Suilleabháin	Head of Department of Technology Enhanced Learning
Gerard Kelly	Head of Department of Mechanical, Biomedical & Manufacturing Engineering (Acting)
Gerard O'Donovan	Head of Faculty of Business & Humanities
Donagh O'Mahony	Head of Department of Physical Sciences (Acting)
Hugh McGlynn	Head of School of Science & Informatics
Irene Sheridan	Head of Extended Campus
Jim Walsh	Head of Department of Applied Social Studies
Joan Scannell	Head of Department of String Studies, CIT CSM
Joe Connell	Head of Department of Electrical & Electronic Engineering
Joe Harrington	Head of School of Building & Civil Engineering
John O'Connor	Head of Department of Wind, Percussion, Voice & Drama Studies, CIT CSM
Katherine Keane	Head of Department of Architecture
Marèse Bermingham	Head of Strategic Student Engagement & Retention Initiative & Head of the Teaching and Learning Unit
Margaret Linehan	Head of School of Humanities

Maria Judge	Head of Department of Musicianship & Academic Studies, CIT CSM
Matt Cotterell	Head of School of Mechanical, Electrical & Process Engineering
Michael Hourihan	Head of Centre of Craft Studies
Michael J. O'Mahony	Head of Department of Process, Energy & Transport Engineering
Michael Loftus	Head of Faculty of Engineering & Science
Niall Smith	Head of Research
Noel Barry	Head of Academic Affairs, School of Graduate Studies
Noel Murray	Head of Department of Tourism & Hospitality
Pio Fenton	Head of Department of Marketing & International Business
Rose McGrath	Head of Department of Media Communications
Stephen Cassidy	Dean of Graduate Studies (Acting)/ Dean of Academic Quality Enhancement
Tim Horgan	Head of Department of Computer Science
Trish Brennan	Head of Department of Fine Art & Applied Art, CIT CCAD
Vivion Gough	Head of Department of Maritime Studies, NMCI

SENIOR EXECUTIVE

Barry O'Connor	Registrar & Vice President for Academic Affairs
Orla Flynn	Vice President for External Affairs
Paul Gallagher	Vice President for Finance & Administration

EX-OFFICIO STAFF

Catherine Frehill	Module Moderator
Dan Collins	Academic Administration and Student Affairs Manager
Commander Stephen Walsh	Associate Head of NMCI
Jean Ricken	Librarian
Eva Juhl	Institutional Review Facilitator
Stephen Cassidy	Dean of Graduate Studies (Acting)/Dean of Academic Quality Enhancement
Tadhg Leane	Head of Strategic Development

STUDENT REPRESENTATIVES

David Brady	Class Representative
VACANT	Representative of CIT CCAD, CIT CSM and NMCI
Yvonne Mackey	Postgraduate Representative
Shane Falvey	President of CIT Students' Union
Rej Makinano	Education Vice-President of CIT Students' Union

ELECTED ACADEMIC STAFF

Faculty of Engineering & Science

Ambrose Furey	Physical Sciences
Ann Toebes	Process, Energy & Transport Engineering
Anna-Maria Keaveney	Biological Sciences
Anne Rogers	Architecture
David Cadogan	Civil, Structural & Environmental Engineering
Donna O'Shea	Computer Science
Garrett O'Sullivan	Architecture
Helen O'Shea	Biological Sciences
Hugh O'Donnell	Mechanical, Biomedical & Manufacturing Engineering
Jeremiah McCarthy	Mathematics
John Barrett	Nimbus Research Centre
John Creagh	Computer Science
Joseph Croke	Biological Sciences
Lorraine Howard	Mechanical, Biomedical & Manufacturing Engineering
Maretta Brennan	Mathematics
Mary Moloney	Civil, Structural & Environmental Engineering
Martin Hill	Electrical & Electronic Engineering
Niamh Power	Civil, Structural & Environmental Engineering
Paul Keane	Mechanical, Biomedical & Manufacturing Engineering

Seán Lacey	Mathematics
Seán McSweeney	Computer Science
Ted McKenna	Civil, Structural & Environmental Engineering
Ted Scully	Computer Science
Vincent Ryan	Computer Science
William Doherty	Physical Sciences

NMCI

Dermot O'Reilly	NMCI
Jane O'Keeffe	NMCI

Faculty of Business & Humanities

Angela Wright	Organisation & Professional Development
Ann-Marie O'Donoghue	Organisation & Professional Development
Carmel Buttimer	Accounting & Information Systems
Christopher Mamo	Applied Social Studies
Colette Murphy	Marketing & International Business
Con Burns	Sport, Leisure & Childhood Studies
Conor Kelleher	Marketing & International Business
Edward Coughlan	Sport, Leisure & Childhood Studies
Gail Cotter Buckley	Tourism & Hospitality
George Murphy	Accounting & Information Business
Róisín Lane	Applied Social Studies
Sarah Culhane	Accounting & Information Systems

CIT CCAD

Frank O'Donovan	Media Communications
-----------------	----------------------

CIT CSM

Fiona Hickey	Wind, Percussion, Voice & Drama Studies
Michael Joyce	Keyboard Studies
Hugh McCarthy	Musicianship & Academic Studies
Karl Rooney	Wind, Percussion, Voice & Drama Studies

3.2 Academic Council Executive Committee Membership

The composition of the Academic Council Executive Committee is:

1. The President (ex-officio)
2. The Registrar & Vice President for Academic Affairs (ex-officio)
3. The Chairpersons of the Academic Council Committees
4. Seven nominated members of the Academic Council, one of whom is a student representative

The functions of the Executive Committee are:

- To order the business of the Academic Council, including the channelling of all business items to and from the Academic Council and its Committees;
- To refer relevant matters to Committees of the Academic Council;
- To coordinate the work of the Committees of the Academic Council;
- To assist in the implementation of Academic Council decisions.

Meetings of the Academic Council Executive Committee

- Normally are held two weeks prior to and two weeks after the Academic Council meeting and at such other times deemed to be necessary;
- Quorate of at least half of the membership of the Executive Committee are present;
- Chaired by the President or by the President's nominee from within the Executive Committee. In the absence of the President or President's nominee, an acting Chairperson shall be appointed from within the Executive Committee by the members present;
- Recorded by the Registrar & Vice President for Academic Affairs who shall act as Secretary of the Executive Committee. In the absence of the Registrar & Vice President for Academic Affairs, an acting Secretary shall be nominated from within the Executive Committee by the members present.

3.3 Academic Council Committees

The Academic Council approved the formation of the following committees:

ACADEMIC PLANNING & REVIEW COMMITTEE

Dr Mary Maloney (Chairperson)

ADMISSIONS COMMITTEE

Mr Don Crowley (Chairperson)

LEARNING RESOURCES COMMITTEE

Mr Dermot O'Reilly (Chairperson)

REGULATIONS COMMITTEE

Dr Áine Ní Shé (Chairperson)

RESEARCH & DEVELOPMENT COMMITTEE

Dr Seán Lacey (Chairperson)

STANDING ORDERS COMMITTEE

Mr Jim Walsh (Chairperson)

3.4 Academic Development

External Reviews

During the 2016/2017 academic year, Phase 1 of the programmatic review of the School of Science and Phase 2 of the programmatic review for the Departments of Computer Science, Biological Sciences, Tourism and Hospitality, CIT CSM and CIT CCAD were completed. As part of this process, programmes within the various Schools and College were categorised into a number of coherent streams with each stream being reviewed by a panel of national and international experts drawn from academia and industry. Panel recommendations were considered and implemented over the course of the academic year.

New Programme Development

The Institute continued to develop and diversify its programme portfolio. In response to a government initiative in respect of cognitive apprenticeship programmes, the Institute validated two programmes in the area of Manufacturing Engineering developed by a national consortium led by Galway-Mayo Institute of Technology and the Irish Medical Device Association. It is notable that the academic portfolio at Level 9 on the National Framework of Qualifications continues to grow with a number of postgraduate programmes in computer science, data science and digital marketing being validated. In line with Institute policy, a number of embedded postgraduate diploma awards were also validated as primarily exit awards for existing Masters programmes. Finally, the Institute validated a large number of special purpose awards aimed at supporting the continuous professional development of people in the region.

Undergraduate Awards

Higher Certificate in Engineering in Manufacturing Engineering [Apprentice Mode]; Bachelor of Engineering in Manufacturing Engineering [Apprentice Mode]; Bachelor of Business (Hons) in Culinary Entrepreneurship; and the Bachelor of Science (Hons) in Industrial Physics (jointly with UCC).

Postgraduate Awards

Postgraduate Diploma in Science in Digital Marketing Strategy; Master of Science in Digital Marketing Strategy; Master of Science in Software Design & Architecture; Master of Science in Data Science & Analytics; Postgraduate Diploma in Arts in Art & Design Education; and the Postgraduate Diploma in Arts in Teaching Visual Arts for Primary & Early Years Education.

Special Purpose Awards

Certificate in the Science of Biotechnological Manufacturing Operations; Certificate in Cleanroom Manufacturing Practices; Certificate in Retail Food Operations; Certificate in Brewing and Distilling Operations; Certificate in Mechanical, Electrical and Plumbing BIM Applications; Certificate in Building Energy Analysis; Certificate in Leadership Development; Certificate in Capital Markets; Certificate in Principles of Sesame Drama and Movement Therapy; Certificate in Designing Innovative Services; Certificate in TV Production; Certificate in Biopharmaceutical Supply Chain Management; Certificate in Advanced Clinical Practice with Children and Families; Certificate in Effective Teaching in Higher Education; and the Certificate in Creativity and Change.

Academic Policies

During the year, the Institute developed and approved a range of academic policies and codes. These included developing a Fitness to Study Policy, a Fitness to Practice Policy, a Code for Good Practice in Research, and a Research Integrity Statement.

3.5 Approved Courses – Full-Time that operated in 2016/17

FACULTY OF ENGINEERING & SCIENCE

SCHOOL OF BUILDING & CIVIL ENGINEERING

Department of Architecture

Level 7

Bachelor of Science in Architectural Technology - Years 1, 2 and 3

Bachelor of Science in Interior Architecture - Years 1, 2 and 3

Level 8

Bachelor of Science (Hons) in Architecture - Years 1, 2, 3 and 4

Bachelor of Science (Hons) in Architectural Technology - Years 1, 2, 3 and 4

Bachelor of Science (Hons) in Interior Architecture - Years 1, 2, 3 and 4

Level 9

Master of Architecture (Taught) - Year 5

Master of Science (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Civil, Structural & Environmental Engineering

Level 7

Bachelor of Engineering in Civil Engineering - Years 1, 2 and 3

Bachelor of Engineering in Environmental Engineering - Years 1, 2 and 3

Level 8

Bachelor of Engineering (Hons) in Structural Engineering - Years 1, 2, 3 and 4

Bachelor of Engineering (Hons) Common Entry Engineering - Year 1

Level 9

Master of Engineering (Research) - Year 5

Master of Engineering in Civil Engineering (Environment and Energy) (Taught) - Year 5

Level 10

Doctor of Philosophy in Civil Engineering - Year 6

Department of Construction

Level 7

Bachelor of Science in Construction - Years 1 and 2

Bachelor of Science in Construction Management - Year 3

Bachelor of Science in Quantity Surveying - Year 3

Level 8

Bachelor of Science (Hons) in Construction Management - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Quantity Surveying - Years 1, 2, 3 and 4

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING***Department of Mechanical, Biomedical & Manufacturing Engineering*****Level 7**

Bachelor of Engineering in Biomedical Engineering - Year 1, 2 and 3
 Bachelor of Engineering in Mechanical Engineering - Years 1, 2 and 3

Level 8

Bachelor of Science (Hons) in Advanced Manufacturing Technology - Year 4
 Bachelor of Engineering (Hons) in Biomedical Engineering - Year 1, 2, 3 and 4
 Bachelor of Engineering (Hons) in Mechanical Engineering - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Process Plant Technology - Year 4

Level 9

Master of Engineering (Research) - Year 5
 Master of Engineering in Mechanical Engineering (Taught) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Process, Energy & Transport Engineering**Level 6**

Certificate (Special Purpose Award) in Biopharmaceutical Manufacturing Operations
 Higher Certificate in Science in Good Manufacturing Practice & Technology - Years 1 and 2

Level 7

Bachelor of Engineering in Building Services Engineering - Year 3
 Bachelor of Science in Transport Management & Technology - Years 1, 2 and 3
 Diploma (Special Purpose Award) in Biopharmaceutical Manufacturing Operations

Level 8

Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering - Years 1, 2, 3 and 4
 Bachelor of Engineering (Hons) in Sustainable Energy Engineering - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Transport Management - Year 4
 Certificate (Special Purpose Award) in Chemical & Biopharmaceutical Engineering

Level 10

Doctor of Philosophy - Year 6

Department of Electrical & Electronic Engineering**Level 7**

Bachelor of Engineering in Electrical Engineering - Years 1, 2 and 3

Bachelor of Engineering in Electronic Engineering - Years 1, 2 and 3

Level 8

Bachelor of Engineering (Hons) in Electrical Engineering - Years 1, 2, 3 and 4

Bachelor of Engineering (Hons) in Electronic Engineering - Years 1, 2, 3 and 4

Level 9

Master of Engineering (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

Centre of Craft Studies

Level 7

Bachelor of Science in Craft Technology (Mechanical Services) - Years 1, 2 and 3

Bachelor of Science in Craft Technology (Wood) with Business - Years 1, 2 and 3

SCHOOL OF SCIENCE & INFORMATICS

Department of Biological Sciences

Level 7

Bachelor of Science in Applied Biosciences with Biotechnology - Year 3

Bachelor of Science in Applied Biosciences - Years 1 and 2

Bachelor of Science in Food & Health Science - Year 3

Level 8

Bachelor of Science (Hons) in Biomedical Science - Years 1, 2, 3 and 4

Bachelor of Science (Hons) Common Entry - Years 1 and 2

Diploma (Special Purpose Award) in Clinical Laboratory Practice

Bachelor of Science (Hons) in Herbal Science - Years 1, 2, 3 and 4

Bachelor of Science (Hons) in Nutrition & Health Science - Years 1, 2, 3 and 4

Bachelor of Science (Hons) in Pharmaceutical Biotechnology - Years 1, 2, 3 and 4

Bachelor of Science (Hons) in Biological Sciences Common Entry – Year 1

Level 9

Master of Science (Research) - Year 5

Master of Science in Computational Biology (Taught) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Computer Science

Level 7

Bachelor of Science in Computing - Years 1, 2 and 3

Bachelor of Science in Information Technology - Years 1, 2 and 3

Level 8

Bachelor of Science (Hons) in IT Management - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Software Development - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Software Development & Computer Networking - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Web Development - Years 1, 2, 3 and 4

Level 9

Master of Science (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Mathematics**Level 8**

Higher Diploma in Science Data Science & Analytics - Year 5

Department of Physical Sciences**Level 7**

Bachelor of Science in Analytical & Pharmaceutical Chemistry - Years 1, 2 and 3
 Bachelor of Science in Applied Physics & Instrumentation - Years 1, 2 and 3

Level 8

Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Applied Physics & Instrumentation - Year 4
 Bachelor of Science (Hons) in Environmental Science & Sustainable Technology - Years 1, 2, 3 and 4
 Bachelor of Science (Hons) in Instrument Engineering - Years 1, 2, 3 and 4

Level 9

Master of Science (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

NMCI**Level 6**

Higher Certificate in Science in Nautical Studies - Years 1 and 2

Level 7

Bachelor of Engineering in Marine Electrotechnology - Years 1, 2 and 3
 Bachelor of Engineering in Marine Engineering - Years 1, 2 and 3
 Bachelor of Science in Nautical Science - Years 1, 2 and 3
 Certificate (Special Purpose Award) in Nautical Studies

Level 8

Bachelor of Science (Hons) in Nautical Science - Year 4
 Certificate (Special Purpose Award) in Nautical Science

FACULTY OF BUSINESS & HUMANITIES**SCHOOL OF BUSINESS*****Department of Accounting and Information Systems*****Level 7**

Bachelor of Business in Accounting - Years 1, 2 and 3
Bachelor of Science in Agriculture - Years 1, 2 and 3
Bachelor of Science in Horticulture - Years 1, 2 and 3

Level 8

Bachelor of Business (Hons) in Accounting - Years 1, 2, 3 and 4
Bachelor of Science (Hons) in Agriculture - Year 4
Bachelor of Science (Hons) in Horticulture - Year 4
Bachelor of Business (Hons) in Information Systems - Years 1, 2, 3 and 4

Level 9

Master of Business (Research)

Department of Management & Enterprise**Level 6**

Higher Certificate in Business - Years 1 and 2

Level 7

Bachelor of Business - Years 1 and 2
Bachelor of Business in Business & Management - Year 3

Level 8

Bachelor of Business (Hons) - Year 4

Level 9

Master of Business (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Marketing & International Business**Level 7**

Bachelor of Business in Marketing - Year 3

Level 8

Bachelor of Business (Hons) in International Business with Language - Years 1, 2 and 3
Bachelor of Business (Hons) in Marketing - Years 1, 2, 3 and 4

Level 9

Master of Business (Research) - Year 5
 Master of Science in International Business (Taught) - Year 5
 Master of Science in Marketing Practice - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Organisation & Professional Development**Level 7**

Bachelor of Business in Business Administration - Years 1, 2 and 3

Level 8

Bachelor of Business (Hons) in Business Administration - Year 4

Level 9

ACCA Qualification - Year 5
 Master of Arts in Human Resource Management - Year 5

SCHOOL OF HUMANITIES***Department of Applied Social Studies*****Level 7**

Bachelor of Arts in Community Development - Years 1, 2 and 3
 Bachelor of Arts in Social Care - Years 1, 2 and 3

Level 8

Bachelor of Arts (Hons) in Social Care - Year 4

Department of Sport, Leisure & Childhood Studies**Level 7**

Bachelor of Arts in Early Years Education - Years 1, 2 and 3
 Bachelor of Business in Recreation & Leisure Management - Years 1, 2 and 3

Level 8

Bachelor of Arts (Hons) in Early Years Education - Year 4
 Bachelor of Arts (Hons) in Montessori - Years 3 and 4
 Bachelor of Business (Hons) in Sport, Exercise & Health - Year 4

Level 9

Master of Arts (Research) - Year 5
 Master of Science (Research) - Year 5

Department of Tourism and Hospitality**Level 6**

Higher Certificate in Arts in Culinary Studies - Years 1 and 2
 Higher Certificate in Arts in Hospitality Studies - Years 1 and 2

Level 7

Bachelor of Business in Bar Management - Years 1, 2 and 3
 Bachelor of Business in Culinary Arts - Years 1, 2 and 3
 Bachelor of Business in Hospitality Management - Years 1, 2 and 3
 Bachelor of Business in Tourism - Years 1, 2 and 3

Level 8

Bachelor of Business (Hons) in Hospitality Management - Year 4
 Bachelor of Business (Hons) in Tourism - Years 1, 2, 3 and 4

Level 9

Master of Business (Research) - Year 5

CIT CCAD***Department of Fine Art & Applied Art*****Level 8**

Bachelor of Arts (Hons) in Contemporary Applied Art (Ceramics, Glass, Textiles) - Years 1, 2, 3 and 4
 Bachelor of Arts (Hons) in Fine Art - Years 1, 2, 3 and 4

Level 9

Master of Arts in Art & Process (Taught) - Year 5
 Master of Arts (Research) - Year 5

Department of the Arts in Health & Community Practice**Level 9**

Master of Arts in Art Therapy - Year 5

Department of Art & Design Education**Level 9**

Professional Master of Education in Art & Design – Years 5 & 6

Department of Media Communications**Level 8**

Bachelor of Arts (Hons) in Multimedia - Years 1, 2, 3 and 4
 Bachelor of Arts (Hons) in Visual Communications - Years 1, 2, 3 and 4

Level 9

Master of Arts in Public Relations with New Media (Taught) - Year 5

CIT CSM**Level 8**

Bachelor of Arts (Hons) in Popular Music - Years 1, 2, 3 and 4
Bachelor of Arts (Hons) in Theatre and Drama Studies - Years 1, 2, 3 and 4
Bachelor of Music (Hons) - Years 1, 2, 3 and 4

Level 9

Master of Arts (Research) - Year 5
Master of Arts Music (Taught) - Year 5
Master of Arts in Music & Technology - Year 5
Master of Science in Music & Technology - Year 5

3.6 Fáilte Ireland and Craft Approved Courses

FACULTY OF BUSINESS & HUMANITIES

SCHOOL OF HUMANITIES

Department of Tourism & Hospitality

Level 6

FETAC Advanced Certificate in Professional Cookery
Fáilte Ireland FETAC Certificate in Professional Cookery

FACULTY OF ENGINEERING & SCIENCE

Centre of Craft Studies

National Craft Certificate – Construction Plant Fitting
National Craft Certificate – Electrical
National Craft Certificate – Fitting & Turning
National Craft Certificate – Motor Mechanics
National Craft Certificate – Plastering
National Craft Certificate – Plumbing
National Craft Certificate – Refrigeration and Air Conditioning
National Craft Certificate – Welding & Fabrication

3.7 Approved Courses – Part-Time that operated in 2016/17

FACULTY OF ENGINEERING & SCIENCE

SCHOOL OF BUILDING & CIVIL ENGINEERING

Department of Architecture

Level 9

Master of Science (Taught) in Interior Architecture - Year 5

Department of Civil, Structural & Environmental Engineering

Level 7

Certificate (Special Purpose Award) in Building Information Modelling - Year 1

Bachelor of Engineering in Civil Engineering - Year 3

Level 8

Bachelor of Engineering (Hons) in Structural Engineering - Year 4

Single Subject Certificate (Special Purpose Award) in Building Regulatory Engineering - Year 1

Single Subject Certification (Special Purpose Award) in Civil Engineering Modules (Level 8) - Year 1

Certificate (Special Purpose Award) in Environmental & Energy Engineering - Year 1

Level 9

Master of Engineering (Research) - Year 5

Master of Engineering in Civil Engineering (Environment and Energy) (Taught) - Year 5

Postgraduate Diploma in Engineering in Civil Engineering (Environment and Energy) - Year 5

Master of Engineering in Structural Engineering - Year 5

Single Subject Certification (Special Purpose Award) in Civil Engineering Modules (Level 9) - Year 1

Department of Construction

Level 7

Bachelor of Science in Construction - Year 1

Bachelor of Science in Quantity Surveying - Year 3

Level 8

Bachelor of Science (Hons) in Quantity Surveying - Year 2

Certificate (Special Purpose Award) in Mechanical & Electrical Quantity Surveying - Year 5

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

Department of Mechanical, Biomedical & Manufacturing Engineering

Level 6

Society of Manufacturing Engineers Certificate Certified Manufacturing Engineer - Year 1

Single Subject Certificate (Special Purpose Award) Lean Practitioner - Year 1

Certificate (Special Purpose Award) in Mechanical Science - Year 1

Level 7

Bachelor of Engineering in Biomedical Engineering - Year 3

Bachelor of Engineering in Mechanical Engineering - Year 3

Certificate (Special Purpose Award) in Automation & Control Systems - Year 1

Certificate (Special Purpose Award) in Biomedical Device Manufacture - Year 1

Certificate (Special Purpose Award) Lean Sigma Green Belt - Year 1

Level 8

Bachelor of Science (Hons) in Advanced Manufacturing Technology - Year 4

Bachelor of Engineering (Hons) in Mechanical Engineering - Year 1

Bachelor of Science (Hons) in Process Plant Technology - Year 4

Certificate (Special Purpose Award) in ICT Project Management - Year 1

Certificate (Special Purpose Award) in Lean Sigma Black Belt - Year 1

Certificate (Special Purpose Award) in Project Management - Year 1

Level 9

Master of Engineering (Research) - Year 5

Master of Engineering in Mechanical Engineering (Taught) - Year 5

Department of Process, Energy & Transport Engineering

Level 6

Higher Certificate in Science in Good Manufacturing Practice & Technology - Years 1 & 2

Single Subject Certification (Special Purpose Award) in Process Energy Transport Modules (Level 6) - Year 1

Level 7

Bachelor of Science in Good Manufacturing Practice & Technology - Year 3

Certificate (Special Purpose Award) in Biopharmaceutical Processing - Year 1

Certificate (Special Purpose Award) in Good Manufacturing Practice & Process Operations - Year 1

Diploma (Special Purpose Award) in Biopharmaceutical Manufacturing Operations - Year 1

Level 8

Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering - Year 2

Certificate (Special Purpose Award) in Chemical Process Safety - Year 1

Level 10

Doctor of Philosophy - Year 6

Department of Electrical & Electronic Engineering

Level 7

Bachelor of Engineering in Electrical Engineering - Years 2 & 3

Level 8

Bachelor of Engineering (Hons) in Electrical Engineering - Year 4

Bachelor of Engineering (Hons) in Electronic Engineering - Year 4

Level 9

Master of Engineering (Research) - Year 5

Level 10

Doctor of Philosophy - Year 6

Centre of Craft Studies**Level 6**

Certificate (Special Purpose Award) in Automotive Technology - Year 1

Certificate (Special Purpose Award) in Maintenance Technology Fundamentals - Year 1

Coded Welding Course European Standard EN287 Coded Welding Standard EN287 - Year 1

Level 7

Bridging Studies for Craft Technology (Wood) with Business (No Award) - Year 1

SCHOOL OF SCIENCE & INFORMATICS***Department of Biological Sciences*****Level 9**

Master of Science (Research) - Year 5

Master of Science in Computational Biology (Taught) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Computer Science**Level 6**

CCNA Certificate CISCO Certified Network Associate (CCNA) - Year 1

Higher Certificate in Science in Computing - Years 1 & 2

CompTIA Certificate CompTIA Network+

Novell Certified Linux Professional Novell's SUSE Linux Administration - Year 1

Level 7

Bachelor of Science in Computing – Years 2 & 3

Bachelor of Science in Information Technology - Year 3

Level 8

Bachelor of Science (Hons) in Software Development - Year 4

Higher Diploma in Science in Cloud Computing - Year 5

Higher Diploma in Science in Cloud & Mobile Software Development - Year 5

Level 9

Master of Science (Research) - Year 5

Master of Science in Cloud Computing (Taught) - Year 5

Master of Science in Networking & Security (Taught) - Year 5

Master of Science in Software Development (Taught) - Year 5

Postgraduate Diploma in Science in Information Design & Development

Level 10

Doctor of Philosophy - Year 6

Department of Mathematics**Level 8**

Higher Diploma in Science in Data Science & Analytics - Year 5

Department of Physical Sciences**Level 6**

Higher Certificate in Science in Industrial Measurement & Control - Year 2
Certificate (Special Purpose Award) in Quality Assurance - Year 1

Level 7

Bachelor of Science in Analytical & Pharmaceutical Chemistry - Year 2
Bachelor of Science in Applied Physics & Instrumentation - Year 3
Excellence Ireland Diploma in Quality Management - Years 1 & 2
Single Subject Certification (Special Purpose Award) in Physical Science Modules - Year 1

Level 8

Bachelor of Science (Hons) in Instrument Engineering - Year 4
Bachelor of Science (Hons) in Applied Physics & Instrumentation - Year 4
Certificate (Special Purpose Award) in Advanced Industrial Automation - Year 1

Level 10

Doctor of Philosophy - Year 6

NMCI**Level 7**

Bachelor of Business in Supply Chain & Transport Management - Year 3

Level 8

Bachelor of Engineering in Marine Engineering - Years 1 & 3
Bachelor of Science (Hons) in Nautical Science - Year 4

Professional Training

Master Deck Refresher Course (Special Purpose Award) Deck Refresher Course
Certificate of Competency in Marine Engineering- Second Engineer Officer/Chief Engineer Officer
Certificate (Special Purpose Award) in Senior Command Operations

FACULTY OF BUSINESS & HUMANITIES

SCHOOL OF BUSINESS

Department of Accounting and Information Systems

Level 7

Bachelor of Business in Accounting - Year 3

Level 8

Bachelor of Business (Hons) in Accounting - Years 3 & 4

Bachelor of Science (Hons) in Agriculture - Year 4

Department of Management & Enterprise

Level 6

Higher Certificate in Business - Years 1 & 2

Level 7

Bachelor of Business in Management - Years 2 & 3

Level 8

Bachelor of Business (Hons) - Year 4

Level 10

Doctor of Philosophy - Year 6

Department of Marketing & International Business

Level 7

Bachelor of Business in Marketing - Year 3

Level 8

Certificate (Special Purpose Award) in Digital Marketing - Year 1

Bachelor of Business (Hons) in Marketing - Year 4

Higher Diploma in Business in Sales Management - Year 5

Level 9

Master of Science in Marketing Practice (Taught) - Year 5

Master of Science in Digital Marketing Strategy (Taught) - Year 5

Master of Science in International Business (Taught) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Organisation & Professional Development**Level 6**

CIMA Certificate Business Accounting - Year 1
 Diploma in Accounting & Business - Year 1
 Certificate (Special Purpose Award) Introductory Book-Keeping and Accounting - Years 1 & 2
 Accounting Technician Accounting and Information Skills - Years 1 & 2

Level 7

Bachelor of Arts in Human Resource Management - Years 1, 2 & 3

Level 8

Bachelor of Arts (Hons) in Human Resource Management - Year 4
 Certificate (Special Purpose Award) in Leadership Development - Year 1

Level 9

Master of Business in Business (Taught) - Year 5
 Master of Arts in Human Resource Management (Taught) - Year 5

SCHOOL OF HUMANITIES***Department of Applied Social Studies*****Level 6**

Higher Certificate in Arts in Counselling Skills - Year 2
 Certificate (Special Purpose Award) in Counselling Skills - Year 1

Level 7

Bachelor of Arts in Social Care - Year 2

Level 8

Bachelor of Arts (Hons) in Counselling & Psychotherapy - Years 3 & 4
 Bachelor of Arts (Hons) in Social Care - Year 4

Level 9

Master of Arts in Integrative Psychotherapy (Taught) - Year 5
 Master of Arts in Play Therapy (Taught) - Year 5

Level 10

Doctor of Philosophy - Year 6

Department of Sport, Leisure & Childhood Studies**Level 7**

Bachelor of Arts in Early Years Education - Year 3
 Bachelor of Business in Recreation & Leisure Management - Years 1, 2 and 3

Level 9

Master of Science (Research) - Year 5

Department of Tourism and Hospitality**Level 6**

Single Subject Certification (Special Purpose Award) in Tourism Modules - Year 1
 Certificate (Special Purpose Award) in Professional Bar Operations - Year 1
 Certificate (Special Purpose Award) in Pastry Tarts and Small Gateaux - Year 2

Level 7

Single Subject Certification (Special Purpose Award) in Tourism Modules - Year 2
 Bachelor of Arts in Culinary Arts - Year 3
 Bachelor of Business in Culinary Arts - Year 1
 Bachelor of Business in Hospitality Management - Year 2

CIT CCAD***Department of Fine Art & Applied Art*****Level 6**

Single Subject Certification (Special Purpose Award) in Arts Modules - Year 1

Level 7

Single Subject Certification (Special Purpose Award) in Arts Modules - Year 1

Level 8

Bachelor of Arts (Hons) in Contemporary Applied Art (Ceramics, Glass, Textiles) - Years 2 & 3
 Bachelor of Arts (Hons) in Fine Art - Years 1 & 4
 Certificate (Special Purpose Award) in Fine Art Textiles - Year 1
 Single Subject Certification (Special Purpose Award) in Arts Modules - Year 1

Level 9

Master of Arts in Art & Process (Taught) - Year 5

Department of the Arts in Health & Community Practice**Level 8**

Certificate (Special Purpose Award) in Arts Participation & Development - Year 1
 Certificate (Special Purpose Award) in Principles & Theory of Art Therapy - Year 1
 Certificate (Special Purpose Award) in Group Arts Facilitation - Year 1

Level 9

Master of Arts in Art Therapy (Taught) - Year 5

Department of Art & Design Education**Level 9**

Master of Arts in Teaching Visual Arts for Primary & Early Years Education (Taught) - Year 5

Department of Media Communications**Level 6**

Certificate (Special Purpose Award) in Media Production
 Certificate (Special Purpose Award) in Radio Broadcast Media

Level 8

Certificate (Special Purpose Award) in Digital Media Design & Development - Year 1

Level 9

Master of Arts in Public Relations with New Media (Taught) - Year 5
 Master of Arts in Journalism with New Media (Taught) - Year 5

CIT CSM**Part-Time**

Piano	Saxophone
Organ	Horn
Harpsichord	Trumpet
Chamber Music	Trombone
Piano Ensemble	Euphonium/Tuba
Jazz Piano	Percussion
Organ Keyboard Skills	Flute/Band Ensemble
Violin	Youth Music Project
Suzuki Violin	Singing
Viola	Opera Studio
Cello	Speech (Class)
Double Bass	Speech (Individual)
Orchestra	Drama
Guitar	Wind Ensemble
Junior Guitar Ensemble	Concert Band
Cello Group	Jazz Big Band
Harp	Percussion Ensemble
Recorder	Junior Bands
Flute	Brass Ensemble
Oboe	Technique C
Clarinet	Woodwind Ensemble
Bassoon	Horn Ensemble
Theory (Individual)	Vocal Support Studies
Choir	Musicianship

TEACHING & LEARNING UNIT

Master of Arts in Teaching & Learning in Higher Education (Taught) - Year 5
 Certificate (Special Purpose Award) in Teaching & Learning in Higher Education (Taught) - Year 5
 Single Subject Certification (Special Purpose Award) in Teaching & Learning Modules

3.8 Validating Authorities

Quality & Qualifications Ireland

On 6 November 2012, Quality and Qualifications Ireland (QQI) was established as a new integrated agency (replacing the Further Education and Training Awards Council, the Higher Education and Training Awards Council and the National Qualifications Authority of Ireland and incorporating the functions of the Irish Universities Quality Board).

QQI is responsible for the external quality assurance of further and higher education and training (including English language provision) and validates programmes and makes awards for certain providers in these sectors.

Professional Bodies

Many professional bodies in engineering, business and science offer their own examinations leading to professional membership and the standard of their final examinations is usually that of honours degree. In addition, holders of Higher Certificates, Ordinary Bachelor Degrees, and Honours Degrees may be exempt from appropriate levels of examination of relevant professional bodies following accreditation of the relevant courses by the professional bodies.

The following is a list of professional bodies who accredit or recognise programmes of study in CIT

- 1 Academy of Clinical Science and Laboratory Medicine (ACSLM)
- 2 Accounting Technicians of Ireland (ATI)
- 3 Association of Chartered Certified Accountants (ACCA)
- 4 Chartered Accountants Ireland
- 5 Chartered Institute of Building (CIOB)
- 6 Chartered Institute of Logistics and Transport
- 7 Chartered Institute of Management Accountants (CIMA)
- 8 Chartered Institute of Personnel and Development (CIPD)
- 9 Chartered Institution of Building Services Engineers
- 10 City & Guilds of London Institute
- 11 Crafts Council of Ireland
- 12 Energy Institute
- 13 Engineers Ireland
- 14 European Council of Interior Architects
- 15 Institute of Biomedical Sciences (UK)
- 16 Institute of Certified Public Accountants in Ireland (ICPAI)
- 17 Institute of Chemistry of Ireland
- 18 Institute of Designers of Ireland (IDI)
- 19 Institute of Physics
- 20 Institution of Chemical Engineers (IChemE)
- 21 Institution of Structural Engineers
- 22 Irish Association of Creative Arts Therapists (IACAT)
- 23 Irish Hospitality Institute
- 24 Marine Survey Office (MSO) of the Irish Department of Transport, Tourism and Sport
- 25 Marketing Institute
- 26 Public Relations Institute of Ireland (PRII)
- 27 Royal Institute of the Architects of Ireland (RIAI)
- 28 Royal Society of Chemistry
- 29 Society of Chartered Surveyors Ireland (SCSI)
- 30 Teaching Council
- 31 Visual Artists Ireland

Government of Ireland - Department of Education & Skills

Apprentices

The Institute offers courses at Phase 4 and Phase 6 levels during apprenticeship. Success at the examinations leads to the award of the Advanced Certificate awarded by QQI.

These courses are provided in the areas of Welding & Metal Fabrication, Building, Automobile Engineering, Mechanical Engineering, Electrical Engineering, and Refrigeration.

Further Education

The Institute through the Department of Tourism and Hospitality provides programmes in Professional Cookery on a full time and day-release basis. The programmes are awarded the Advanced Certificate in Professional Cookery at Level 6 on the National Framework of Qualifications.

3.9 External Examiners

FACULTY OF BUSINESS & HUMANITIES

SCHOOL OF BUSINESS

Ms Angela Crowley

- Higher Diploma in Business in Sales & Management
- Bachelor of Business

Dr Angela Ryan

- All French Modules

Ms Ann Masterson

- Bachelor of Business
- Bachelor of Business (Hons)
- Bachelor of Business in Marketing
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business (Hons) in International Business with Language

Dr Ali Nazarpour

- Bachelor of Arts in Human Resources Management
- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in Business Administration
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business in Business Administration
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Higher Certificate in Business
- Bachelor of Business

Dr Amr Arisha

- Bachelor of Business (Hons) in Business
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business in Business Information Systems
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Bachelor of Science in Agriculture
- Master of Science in International Business
- Master of Science in Marketing Practice

Ms Anne Tynan

- Bachelor of Business in Accounting
- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in Business

Ms Caroline Murphy

- Bachelor of Business in Business Administration

Dr Chris Mulhall

- Bachelor of Business

Ms Clodagh Geraghty

- Bachelor of Arts in Human Resource Management
- Bachelor of Arts (Hons) in Human Resource Management
- Master of Arts in Human Resource Management

Dr Colette Darcy

- Bachelor of Arts in Human Resource Management
- Bachelor of Arts (Hons) in Human Resource Management
- Master of Arts in Human Resource Management

Dr Deirdre Fleming

- Bachelor of Business (Hons) in Marketing
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business in Marketing
- Master of Science in International Business
- Master of Science in Marketing Practice
- Bachelor of Business in Management
- Bachelor of Business (Hons) in Business

Dr Daire Hooper

- Bachelor of Business (Hons) in Business
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Master of Science in International Business
- Master of Science in Marketing Practice

Ms Eimear Kelly

- German Modules

Ms Emer Ní Bhradaigh

- Bachelor of Business
- Bachelor of Business (Hons) in Business Information Systems
- Bachelor of Business in Business Administration
- Bachelor of Business in Management
- Bachelor of Business (Hons) in Marketing
- Higher Certificate in Business

Ms Emma Dillane

- Bachelor of Business in Business Administration
- Bachelor of Business in Business Management
- Bachelor of Business in Management (AE)
- Bachelor of Business in Accounting (ACCS)
- Bachelor of Business (Hons) in Accounting

Ms Erin McNamara Cullen

- Spanish Module

Dr Felicity Kelliher

- Master of Business

Mr Gerard Phelan

- Bachelor of Business
- Bachelor of Business in Management
- Higher Certificate in Business
- Bachelor of Business in Business Administration
- Bachelor of Business (Hons) in Business Information Systems
- Bachelor of Business (Hons) in Marketing

Mr John Casey

- Bachelor of Business in Accounting
- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in Information Systems
- Bachelor of Business in Business Administration

Dr Juliet MacMahon

- Master of Arts in Human Resource Management

Dr Karina Pierce

- Bachelor of Science in Agriculture
- Bachelor of Science (Hons) in Agriculture
- Bachelor of Science in Horticulture
- Bachelor of Science (Hons) in Horticulture

Dr Liam Thornton

- Law Modules (See File)

Dr Mary Kinahan

- Bachelor of Business
- Bachelor of Business in Management
- Bachelor of Business in Accounting
- Bachelor of Arts (Hons) in Human Resource Management

Dr Marian Crowley - Henry

- Bachelor of Arts in Human Resource Management
- Bachelor of Arts (Hons) in Human Resource Management
- Master of Arts in Human Resource Management

Ms Norita O'Donoghue

- Bachelor of Arts in Human Resource Management
- Bachelor of Arts (Hons) in Human Resource Management
- Master of Arts in Human Resource Management

Dr Olga Ryazonova

- Bachelor of Business
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Higher Certificate in Business
- Master of Arts in Human Resource Management
- Master of Business Studies

Ms Patricia Martyn

- Bachelor of Business (Hons) in Information Systems

Mr Peter Weadack

- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business (Hons) in Marketing
- Bachelor of Business in Accounting
- Bachelor of Business in Business & Management
- Bachelor of Business in Business Administration
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Master of Business

Dr Philip Dix

- Bachelor of Science in Horticulture
- Bachelor of Science (Hons) in Horticulture

Dr Rachel Hillard

- Bachelor of Business
- Bachelor of Business (Hons)
- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in Business Administration

- Bachelor of Business (Hons) in Information Systems
- Bachelor of Business (Hons) in International Business with Language
- Bachelor of Business in Business Administration
- Bachelor of Business in Management
- Bachelor of Business in Marketing
- Higher Certificate in Business

Mr Robert Farrell

- Bachelor of Business
- Bachelor of Business (Hons) in Business Administration
- Bachelor of Business in Marketing
- Bachelor of Business (Hons) in Marketing
- Certificate in Digital Marketing
- Higher Diploma in Business in Sales Management
- Master of Science in International Business
- Master of Science in Marketing Practice

Dr TJ MacDonald

- Bachelor of Business (Hons) in Business Information Systems
- Bachelor of Business in Business Administration
- Bachelor of Business (Hons) in Business Administration

SCHOOL OF HUMANITIES

Ms Annie Sampson

- One Year Certificate in Counselling Skills
- Higher Certificate in Counselling Skills

Ms Deirdre Barry

- Postgraduate Diploma in Arts in Play Therapy

Ms Diane Canny

- Postgraduate Diploma in Arts in Play Therapy

Ms Donna McNamara

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) in Social Care

Dr Feilim Ó hAdhmaill

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) in Social Care

Mr Ger Phillips

- Bachelor of Arts in Community Development
- Bachelor of Arts (Hons) in Community Development

Ms Gillian Larkin

- Bachelor of Arts in Social Care

Ms Jacinta Byrne Doran

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) in Social Care

Dr Jacqui O'Riordan

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) in Social Care

Dr John McNamara

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hon) in Social Care

Dr John Considine

- Bachelor of Arts (Hons) in Social Care

Dr Lisha O'Sullivan

- Master of Arts in Play Therapy

Dr Maria Dempsey

- Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) in Social Care

Mr Martin F. Kenneally

- Bachelor of Arts (Hons) in Social Care

Ms Patricia McCaffrey

- Bachelor of Arts in Social Care

Ms Rebecca Loughry

- Bachelor of Arts in Community Education
- Bachelor of Arts (Hons) in Community Education

Mr Tom Geary

- Bachelor of Arts (Hons) in Counselling & Psychotherapy
- Master of Arts in Integrative Psychotherapy

Mr Denis Cullinane

- Bachelor of Business in Recreation & Leisure Management

Ms Emer Ní Bhrádaigh

- Bachelor of Business in Recreation & Leisure Management

Mr Gerard Phelan

- Bachelor of Business in Recreation & Leisure Management

Dr Mairéad De Búrca

- Bachelor of Arts (Hons) in Montessori Education
- Bachelor of Arts (Hons) in Early Years Education - An Ghaeilge (Elective)
- Bachelor of Arts in Early Years Education - An Ghaeilge (Elective)

Dr Mark Lyons

- Bachelor of Business in Recreation & Leisure Management
- Bachelor of Business (Hons) in Sport & Exercise

Dr Maura Cunneen

- Bachelor of Arts in Early Years Education
- Bachelor of Arts (Hons) in Early Education
- Bachelor of Arts (Hons) in Montessori Education

Dr Meera Oke

- Bachelor of Arts (Hons) in Montessori Education

Ms Patricia McCaffrey

- Bachelor of Arts in Early Years Education
- Bachelor of Arts (Hons) in Early Years Education
- Bachelor of Arts (Hons) in Montessori Education (One Elective Module)

Ms Patricia Martyn

- Bachelor of Business in Recreation & Leisure Management

Mr Peter Weadack

- Bachelor of Business in Recreation & Leisure Management
- Module - Financial Accounting in the Leisure Industry

Dr Rachel Hillard

- Bachelor of Business (Hons) in Sport & Exercise
- Higher Certificate in Hospitality Studies

Mr Roddy Gaynor

- Bachelor of Business in Recreation & Leisure Management
- Bachelor of Business (Hons) in Sport & Leisure

Dr Sharon McLaughlin

- Bachelor of Arts in Early Years Education
- Bachelor of Arts (Hons) in Early Years Education
- Bachelor of Business in Recreation & Leisure Management

Ms Deirdre Cole

- Bachelor of Business in Tourism
- Bachelor of Business (Hons) in Tourism

Mr Diarmuid Cawley

- Higher Certificate in Arts in Culinary Studies
- Advanced Certificate in Professional Cookery (FETAC)

Mr Martin Neville

- Bachelor of Business in Hospitality Management
- Bachelor of Business (Hons) in Hospitality Management
- Bachelor of Business in Culinary Arts
- Higher Certificate in Arts in Culinary Studies
- Higher Certificate in Hospitality Studies
- Bachelor of Business in Tourism
- Bachelor of Business in Bar Management

Mr Ray Cullen

- Higher Certificate in Hospitality Studies

Ms Rosemarie Leonard

- Bachelor of Business in Culinary Arts
- Bachelor of Business in Bar Management

Mr Séamus Crotty

- Bachelor of Business in Hospitality Management
- Bachelor of Business (Hons) in Hospitality Management

Dr Sophie Price

- Bachelor of Business in Tourism
- Bachelor of Business (Hons) in Tourism

CIT CCAD

Prof. Dervil Jordan

- Master of Arts in Art & Design Education
- Master of Arts in Teaching Visual Arts in Primary & Early Years Education

Dr Sharon Phelan

- Master of Arts in Art & Design Education
- Master of Arts in Teaching Visual Arts in Primary & Early Years Education

Ms Sheelagh Broderick

- Arts in Group Facilitation (Level 8)
- Arts Participation & Development (Level 8)

Ms Suzie Cahn

- Master of Arts in Art Therapy
- Certificate in the Principles of Art Therapy

Dr Brian Fay

- Bachelor of Arts (Hons) In Fine Art

Ms Christina McBride

- Bachelor of Arts (Hons) in Fine Art & Design

Mr Clive Fiddis

- Bachelor of Arts (Hons) in Contemporary Applied Art (Ceramics, Glass, Textiles)

Ms Ingrid Murphy

- Bachelor of Arts (Hons) in Contemporary Applied Art (Ceramics, Glass & Textiles)

Dr Tim Stott

- Bachelor of Arts (Hons) in Fine Art
- Bachelor of Arts in Fine Art
- Bachelor of Arts (Hons) in Ceramic Design
- Bachelor of Arts in Ceramics Design

Dr Tina Kinsella

- Bachelor of Arts (Hons) in Fine Art
- Bachelor of Arts (Hons) in Contemporary Applied Art

Mr Mark O'Kelly

- Master of Arts in Art & Process

Dr Sarah Smith

- Master of Arts in Art & Process

Dr Anna Moran

- Bachelor of Arts (Hons) in Visual Communications

Dr Gianni Corino

- Bachelor of Arts (Hons) in Multimedia

Ms Jackie Raftery

- Bachelor of Arts (Hons) in Visual Communications

Mr Juan Miguel Marino Camarasa

- Bachelor of Arts (Hons) in Multimedia

Mr Ralph Riegel

- Master of Arts in Journalism with New Media

Ms Renate Murphy

- Master of Arts in Public Relations with New Media

Mr Ritchie Ryan

- Bachelor of Arts (Hons) in Visual Communications

Mr Robert Farrell

- Master of Arts in Public Relations with New Media

Mr Tom O'Mara

- Master of Arts in E-Learning Design & Development
- Certificate in Digital Media Design & Development

CIT CSM

Mr Barra Vernon

- Master of Science in Music & Technology (Taught)

Mr Bob Burke

- Bachelor of Arts in Popular Music

Mr Brian O'Rourke

- Bachelor of Music (Hons)

Mr Cian Boylan

- Bachelor of Arts (Hons) in Popular Music

Ms Denise Neary

- Bachelor of Music (Hons)

Dr Ed Bennett

- Master of Science in Music & Technology (Taught)

Ms Kate McCarthy

- Bachelor of Arts in Theatre & Drama Studies

Dr Mary Lennon

- Master of Arts in Music (Taught)

Ms Mia Cooper

- Master of Arts in Music (Taught)

Mr Shane Callanan

- Master of Arts in Music & Technology
- Master of Science in Music & Technology

Mr Thomas Conway

- Bachelor of Arts in Theatre & Drama Studies

FACULTY OF ENGINEERING & SCIENCE**SCHOOL OF BUILDING & CIVIL ENGINEERING**

Prof. Christopher J. Platt

- Bachelor of Science (Hons) in Architecture
- Master of Architecture

Mr Conor McCabe

- Bachelor of Science in Interior Architecture
- Bachelor of Science (Hons) in Interior Architecture

Mr Derek O'Leary

- Bachelor of Science in Architectural Technology
- Bachelor of Science (Hons) in Architectural Technology

Mr Eoghan McCarthy

- Bachelor of Science in Architectural Technology
- Bachelor of Science (Hons) in Architectural Technology

Mr James Bourke

- Bachelor of Science in Architectural Technology
- Bachelor of Science (Hons) in Architectural Technology

Mr John McDonald

- Master of Science in Interior Architecture

Mr John Finbarr Sheehan

- Bachelor of Science in Interior Architecture
- Bachelor of Science (Hons) in Interior Architecture

Ms Maria McVeigh

- Master of Science in Interior Architecture

Prof. Raoul Bunschoten

- Bachelor of Science (Hons) in Architecture
- Master of Architecture

Mr Robin Stubbs

- Bachelor of Science in Architectural Technology
- Bachelor of Science (Hons) in Architectural Technology

Mr Brendan Brice

- Higher Certificate in Engineering in Civil Engineering
- Bachelor of Engineering in Civil Engineering
- Bachelor of Engineering in Environmental Engineering

Dr Bryan McCabe

- Bachelor of Engineering (Hons) in Structural Engineering
- Common Entry Engineering - Level 8

Ms Clodagh O'Donovan

- Bachelor of Engineering (Hons) in Structural Engineering
- Common Entry Engineering - Level 8 (Year 1)

Mr Fintan McGivern

- Master of Engineering in Civil Engineering (Environmental & Energy)
- Postgraduate Diploma in Civil Engineering (Environmental & Energy)

Mr James G. Mansfield

- Master of Engineering in Structural Engineering
- Postgraduate Diploma in Structural Engineering

Dr Patrick Purcell

- Master of Engineering in Structural Engineering
- Postgraduate Diploma in Structural Engineering
- Master of Engineering in Civil Engineering (Environmental & Energy)
- Postgraduate Diploma in Civil Engineering (Environmental & Energy)

Ms Úna Beagon

- Higher Certificate in Engineering in Civil Engineering
- Bachelor of Engineering in Civil Engineering
- Bachelor of Engineering in Environmental Engineering

Mr Ger Harrington

- Bachelor of Science in Quantity Surveying
- Bachelor of Science (Hons) in Quantity Surveying

Mr Lawrence Buckley

- Postgraduate Diploma/Master of Science in Construction Project Management

Mr Lawrence Slade

- Bachelor of Science in Construction Management
- Bachelor of Science (Hons) in Construction Management

Mr Martin Taggart

- Bachelor of Science in Construction Management
- Bachelor of Science (Hons) in Construction Management

Mr Pat Carter

- Bachelor of Science in Quantity Surveying
- Bachelor of Science (Hons) in Quantity Surveying

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

Ms Emer Ní Bhradáigh

- Bachelor of Engineering in Electronic Systems Engineering

Mr James Wright

- Bachelor of Engineering in Electronic Engineering
- Bachelor of Engineering (Hons) in Electronic Engineering
- Master of Arts in Music & Technology
- Master of Science in Music & Technology

Mr Michael Radley

- Bachelor of Engineering in Electrical Engineering
- Bachelor of Engineering (Hons) in Electrical Engineering

Mr Shane Callanan

- Bachelor of Engineering in Electronic Engineering
- Bachelor of Engineering (Hons) in Electronic Engineering

Ms Siobhán Wall

- Bachelor of Engineering in Electrical Engineering
- Bachelor of Engineering (Hons) in Electrical Engineering

Mr Bernard Gould

- Certificate in Project Management
- Project Management Techniques (Stand Alone Module)

Mr John Kelly

- Bachelor of Engineering (Hons) in Mechanical Engineering

Ms Bernie Barber

- Introduction to Lean & Six Sigma
- Lean Sigma Practitioner, Yellow Belt
- Lean Sigma Green Belt
- Lean Sigma Black Belt

Mr Cyril Tuohy

- Bachelor of Engineering in Biomedical Engineering
- Bachelor of Engineering (Hons) in Biomedical Engineering

Prof. David A. Hoey

- Bachelor of Engineering in Biomedical Engineering
- Bachelor of Engineering (Hons) in Biomedical Engineering

Mr Declan Sheridan

- Bachelor of Engineering (Hons) in Advanced Manufacturing Technology
- Bachelor of Engineering (Hons) in Process Plant Technology

Dr Garrett Byrne

- Bachelor of Engineering in Mechanical Engineering

Dr Joseph Butterfield

- Bachelor of Engineering (Hons) in Mechanical Engineering
- Master of Engineering in Mechanical Engineering (Taught)

Mr Seán Walsh

- Bachelor of Science (Hons) in Advanced Manufacturing Technology
- Bachelor of Science (Hons) in Process Plant Technology

Dr Tom Roche

- Bachelor of Engineering in Mechanical Engineering

Mr Billy Madden

- Bachelor of Science in Good Manufacturing Practice & Technology
- Higher Certificate in Science in Good Manufacturing Practice & Technology
- Diploma in Biopharmaceutical Manufacturing Operations
- Certificate in Biopharmaceutical Manufacturing Operations
- Certificate in Food Manufacturing Operations

Mr David Halloran

- Bachelor of Engineering (Hons) in Sustainable Energy Engineering
- Certificate in Introduction to Sustainable Energy
- Certificate in Sustainable Energy

Mr Eamon Judge

- Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering
- Certificate in Process Industries Advancements & Innovation
- Certificate in Chemical Process Safety
- Certificate in Chemical Process Operations (Level 6)
- Master of Engineering in Chemical & Biopharmaceutical Engineering

Prof. Harald Gollinger

- Bachelor of Science in Transport Management & Technology
- Bachelor of Science (Hons) in Transport Management

Dr Jarmila Glassey

- Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering
- Certificate in Process Industries Advancements & Innovation
- Certificate in Chemical Process Safety
- Certificate in Chemical Process Operations
- Master of Engineering in Chemical & Biopharmaceutical Engineering

Dr John Wall

- Postgraduate Certificate in Professional Practice

Prof. John Currie

- Bachelor of Engineering (Hons) in Sustainable Energy Engineering

Mr Liam Cotter

- Bachelor of Science in Good Manufacturing Practice & Technology
- Higher Certificate in Science in Good Manufacturing Practice & Technology
- Diploma in Biopharmaceutical Manufacturing Operations

Mr Pat Donnelly

- Bachelor of Science in Transport Management & Technology
- Bachelor of Science (Hons) in Transport Management

Mr Albert Byrne

- Bachelor of Science in Craft Technology - Mechanical Services
- Certificate in Maintenance Technology Fundamentals
- Certificate in Equipment Maintenance Fundamentals

Dr Ali Nazarpour

- Bachelor of Science in Craft Technology (Wood) with Business
- Bachelor of Science in Craft Technology - Mechanical Services

Mr David Tracey

- Bachelor of Science in Craft Technology (Wood) with Business

Ms Emma Dillane

- Bachelor of Science in Craft Technology (Wood) with Business

Mr Ger O'Leary

- Bachelor of Science in Craft Technology - Mechanical Services
- Certificate in Maintenance Technology Fundamentals
- Certificate in Equipment Maintenance Fundamentals

Mr Michael Beasley

- Bachelor of Science in Craft Technology (Wood) with Business

Dr Olga Ryazonova

- Bachelor of Science in Craft Technology (Wood) with Business

Mr Peter Weadack

- Bachelor of Science in Craft Technology (Wood) with Business

SCHOOL OF SCIENCE & INFORMATICS

Prof. Áine McKillop

- Bachelor of Science (Hons) in Biomedical Science

Dr Brendan O'Donnell

- Bachelor of Science in Applied Biosciences & Biotechnology

Dr Cormac Gahan

- Bachelor of Science in Pharmaceutical Biotechnology

Dr Eibhlís O'Connor

- Bachelor of Science (Hons) in Nutrition & Health Science

Dr John MacSharry

- Master of Science in Computational Biology

Prof. Nora O'Brien

- Bachelor of Science in Food & Healthcare

Prof. Philip Dix

- Bachelor of Science (Hons) in Herbal Science

Ms Sinéad Carey

- Diploma in Clinical Lab Practice

Dr Daniel Kelly

- Master of Science in Software Development

Mr Ian Manning

- Bachelor of Science (Hons) in Software Development & Networking

Dr Jim Buckley

- Bachelor of Science (Hons) in Software Development
- Bachelor of Science (Hons) in Web Development

Prof. John Murphy

- Bachelor of Science (Hons) in Software Development & Computer Networking

Dr Keara Barrett

- Master of Science in Cloud Computing

Dr Luca Longo

- Bachelor of Science in Computing

Dr Michael Brady

- Bachelor of Science (Hons) in Software Development

Dr Nhien-An Le-Khac

- Master of Science in Information Security

Dr Owen Foley

- Bachelor of Science in Information Technology
- Bachelor of Science (Hons) in IT Management

Dr Ann O'Shea

- Module Externs – Mathematics

Dr James Cruickshank

- Module Extern for Mathematics

Prof. Michael Wallace

- Higher Diploma in Science in Data Science & Analytics
- Module Extern for Statistics

Dr Niall Fitzgerald

- Higher Diploma in Science in Data Science & Analytics

Mr Joe Haugh

- Bachelor of Science (Hons) in Environmental Science & Sustainable Technology
- Bachelor of Science (Hons) in Instrument Engineering
- Bachelor of Science in Applied Physics & Instrumentation
- Higher Certificate in Industrial Measurement & Control

Dr John Houlihan

- Bachelor of Science in Applied Physics & Instrumentation
- Bachelor of Science (Hons) in Environmental Science & Sustainable Technology
- Bachelor of Science (Hons) in Instrument Engineering
- Higher Certificate in Industrial Measurement & Control

Dr Mary Deasy

- Bachelor of Science in Analytical & Pharmaceutical Chemistry
- Certificate in Quality Assurance (Special Purpose Award) (Level 6)
- Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance

Dr Merissa Moriarty

- Bachelor of Science in Analytical Chemistry with Quality Assurance

Dr Michael Geary

- Bachelor of Science in Analytical & Pharmaceutical Chemistry
- Higher Certificate in Good Manufacturing Practice & Technology

NMCI

Mr Colm McGinley

- Bachelor of Arts in Leadership, Management & Naval Studies

Mr Declan Allen

- Bachelor of Business in Supply Chain & Transport Management

Ms Deirdre Lane

- Bachelor of Science in Nautical Science

Mr Donal Whooley

- Higher Certificate in Arts in Leadership, Management & Naval Studies

Mr Emmett Ryan

- Bachelor of Engineering in Marine Electrotechnology

Capt. Fergus Britton

- Bachelor of Science (Hons) in Nautical Science

Prof. Graham Heaslip

- Bachelor of Business in Supply Chain & Transport Management

Capt. Harvey Menezes

- Bachelor of Science (Hons) in Nautical Science

Mr John Meskell

- Bachelor of Engineering in Marine Electrotechnology

Mr Michael Kennedy

- Bachelor of Engineering in Marine Engineering

Mr Ronan Boyle

- Certificate in Senior Command Operations

Capt. Shane Begley

- Higher Certificate in Science in Nautical Science

Mr Martin Lilley

- Bachelor of Engineering in Marine Engineering

School of Graduate Studies

Dr Liam Marnane

- Structured PhD Modules
- Space Studies - An Overview - Single Module

Student Engagement & Retention Initiative

Ms Nuala Harding

- Common Module - PALS – Leadership

Teaching & Learning Unit

Dr Marian McCarthy

- Master of Arts in Teaching & Learning in Higher Education

Dr Marian McCarthy

- RPL: Policy, Practice & Pedagogy

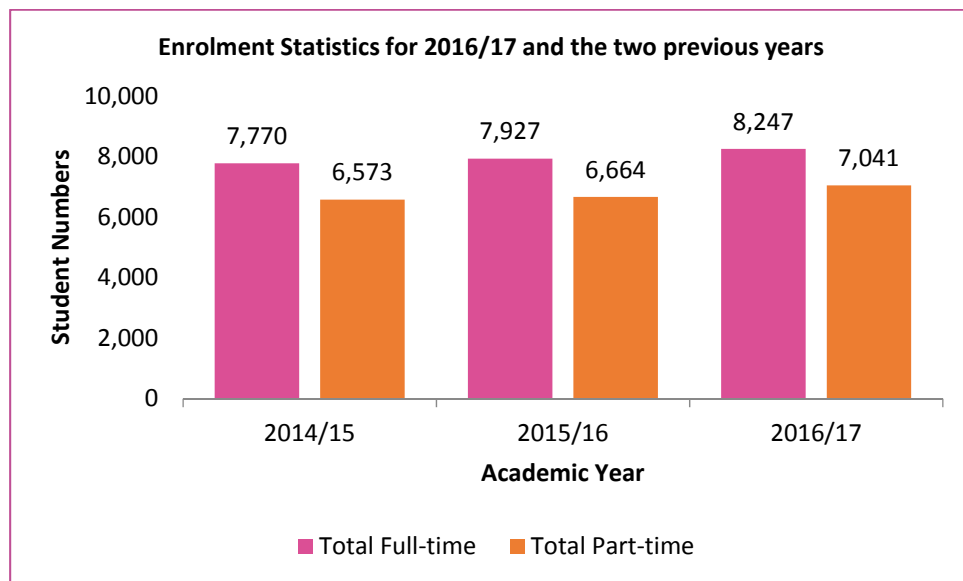
Ms Sinéad O'Sullivan

- Master of Arts in Teaching & Learning in Higher Education
- RPL: Policy, Practice & Pedagogy

3.10 Student Statistics

Enrolment Statistics for 2016/17 and the two previous years

	2014/15	2015/16	2016/17
Total Full-time	7,770	7,927	8,247
Total Part-time	6,573	6,664	7,041
OVERALL TOTAL	14,343	14,591	15,288

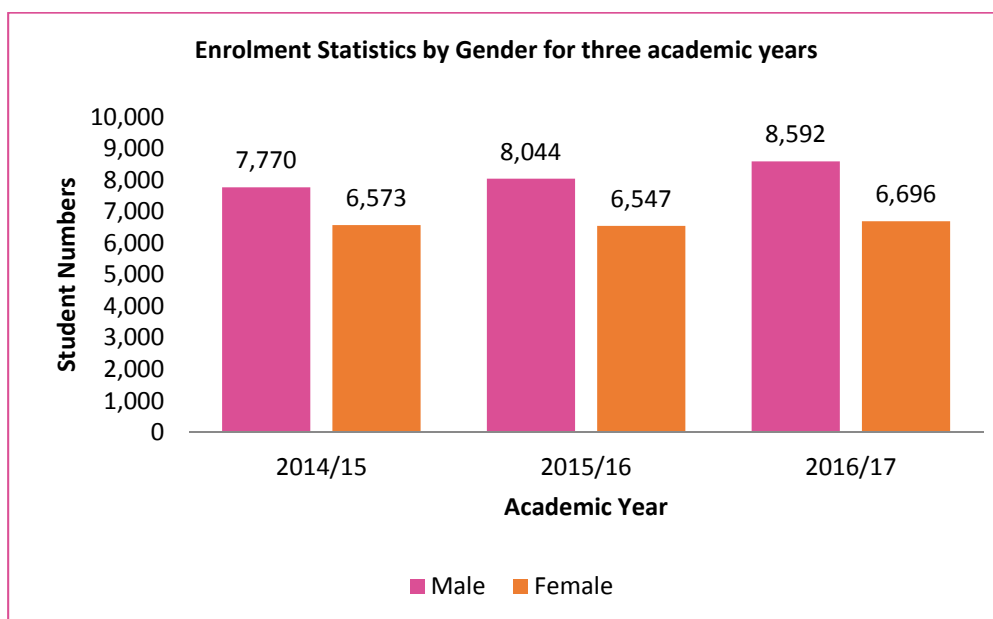


Enrolments by Gender and Attendance Mode for 2016/17

	Male	Female	Total
FULL-TIME			
Non-Mature	4,349	2,954	7,303
Mature	603	341	944
TOTAL	4,952	3,295	8,247
PART-TIME			
Fáilte Ireland	0	0	0
Craft Apprentices	811	0	811
Evening Courses	2,829	3,401	6,230
TOTAL	3,640	3,401	7,041
OVERALL TOTAL	8,592	6,696	15,288

Enrolment Statistics by Gender for three academic years

	2014/15	2015/16	2016/17
Male	7,770	8,044	8,592
Female	6,573	6,547	6,696
TOTAL	14,343	14,591	15,288

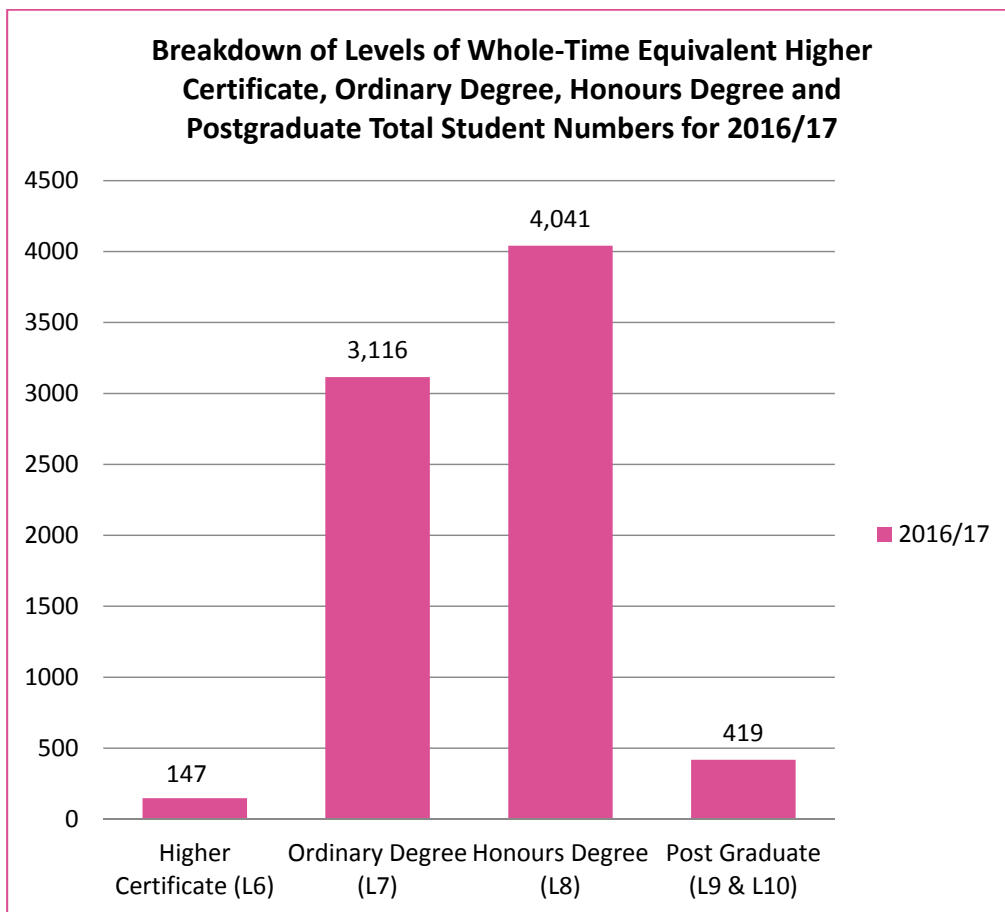


Breakdown of Whole-Time Equivalent Student Numbers - Higher Certificate, Ordinary Degree, Honours Degree, and Postgraduate by Discipline for 2016/17

	Higher Certificate (L6)	Ordinary Degree (L7)	Honours Degree (L8)	Post Graduate (L9 & L10)	Totals
Agriculture and Veterinary	0	153	43	0	196
Arts & Humanities	0	28	773	139	940
Business Administration and Law	29	768	966	92	1,855
Education	0	27	37	48	112
Engineering, Manufacturing and Construction	8	640	805	53	1,506
Health and Welfare	0	472	414	0	886
Information and Communication Technologies	0	163	339	10	512
Natural Sciences, Mathematics and Statistics	0	197	508	69	774
Sciences, Mathematics and Computing	0	0	0	0	0
Services	110	0	156	8	274
Social Sciences, Business and Law	0	668	0	0	668
Social Sciences, Journalism and Information	0	0	0	0	0
TOTAL	147	3,116	4,041	419	7,723

Breakdown of Levels of Whole-Time Equivalent Higher Certificate, Ordinary Degree, Honours Degree, and Postgraduate Total Student Numbers for 2016/17

	Higher Certificate (L6)	Ordinary Degree (L7)	Honours Degree (L8)	Postgraduate (L9 & L10)
TOTAL	<u>147</u>	<u>3,116</u>	<u>4,041</u>	<u>419</u>



3.11 Student and Graduate Prizes & Achievements

1. On Thursday 8 September 2016, CIT's HydroFLOcean (H-FLO) Multidisciplinary Team of Engineering and Business students won the 2016 Irish James Dyson Award– First Place – National Award Winner 2016 for their invention. The James Dyson Award is a national and international design award that celebrates, encourages and inspires the next generation of design engineers.

The H-FLO is a new innovative water safety device that disengages a lanyard from a harness when submerged in water. The functional prototype was designed and developed by the students in response to the fatalities of two men at Thomond Bridge, Limerick last year when they were harnessed onto a platform that fell into the River Shannon.

2. The James Dyson Foundation announced on 29 September 2016 that CIT's HFLO Multidisciplinary Team are among the top 20 Global Finalists short-listed from over 1,100 entries from 22 countries worldwide for the James Dyson Award International Finalist Stage 2016. The team consisted of Engineering & Business students, **Arran Coughlan, Gerard O'Connell, Kelly Lane, George O'Rourke, Shane O'Driscoll, Jason Shorten, John Harrington and Kacey Mealy.**
3. 3rd year Agriculture student, **Chloe Millar**, represented CIT & Ireland at the Scud World Shotokan Karate Championships in Burgas, Bulgaria from 8 – 10 October and secured a bronze medal in +58kgs Youths Category. Chloe represented CIT with distinction on the World stage.
4. CIT 2015 graduate of the BSc (Hons) in Biomedical Science, **Caoimhe Lynch**, won the European Association of Professions in Biomedical Science (EPBS) award for the best Poster showing undergraduate research in the field of Biomedical Science in Athens on Saturday 8 October 2016.

Caoimhe qualified to represent Ireland in Athens by winning the President's Prize at the Academy of Clinical Science and Laboratory Medicine Conference (ACSLM) in the RDS, Dublin, earlier in the year. Caoimhe presented the findings of her Final Year Project, which was supervised by Dr Brigid Lucey and titled "Epidemiological Analysis of Vancomycin Resistant Enterococci in an Acute Irish Hospital". This work has also been published as a paper in the Journal of Hospital Infection.

5. It was announced on 14 October 2016 by Accenture Ireland that CIT Student Inc and Biomedical Engineering Graduates **Eoin McCarthy and Myat Min Khaung** won First Place (and an award of €500) in the Accenture Leaders of Tomorrow Best Start Up Video Pitch Competition, which took place in Accenture Ireland's Headquarters in Dublin. Eoin and Myat's pitch was based on their group capstone Biomedical Engineering project on the development of a Hand-Held Water Purification Device and beat off fierce competition nationally from many disciplines to claim the top award.
6. The Faculty of Business & Humanities Awards 2016 took place on 20 October 2016 in the Tourism & Hospitality Building, Bishopstown Campus. This event celebrated the achievements of the best graduates from the Schools of Business and Humanities. 53 Awards were presented as follows:

Special Merit Awards 2016 – School of Business	
Department of Management & Enterprise	5
The Vicki Ross Memorial Award	1
Department of Accounting & Information Systems	8
The Des Roche Memorial Award (Joint Award)	1
Department of Marketing & International Business	4
Department of Organisation & Professional Development	5
The Clarissa Hegarty Memorial Award	1

Special Merit Awards 2016 – School of Humanities	
Department of Applied Social Studies	2
Social Care Ireland Award	1
Department of Tourism & Hospitality	10
Fáilte Ireland Awards	2
Department of Sport, Leisure & Childhood Studies	5
Peer Assisted Learning & Support (PALS)	8

7. Conferring of Degrees and Other Awards for the Faculty of Business & Humanities and the Teaching and Learning Unit took place in the CIT Bishopstown Campus on 21 October 2016. There were four conferring sessions and 1,324 graduands obtained their parchments.
8. **James O'Connor**, PhD student, Department of Biological Sciences received the award for the best research poster, in one of only four awards made at the Irish Society of Clinical Microbiologists and Academy of Clinical Science and Laboratory Medicine Pan Celtic Conference, held in Dublin on 21 and 22 October 2016. The title of James's poster was "Identification of Mycobacterium tuberculosis complex and non-tuberculosis mycobacteria isolates: comparison of HAIN GenoType CM/MTBC and Bruker Biotyper MALDI-tof".
9. The CIT CSM Awards Ceremonies took place as follows:
- (i) On 21 October 2016 awards were presented to students who completed the Junior Musicianship and Senior Musicianship cycles last June. The following awards were presented:

Award	Name	Department
The most distinguished student in the Junior Cycle	Sylvan Mayer-Whitla & Aoife O'Donovan	Department of Keyboard Studies
	Eoin Quirke	Department of String Studies
	Alice Sullivan	Department of Wind, Percussion, Voice & Drama Studies (Instrumental Award)
The most distinguished student in the Intermediate Cycle	Roisín Fleming & Anna Jansson	Department of Keyboard Studies (Maud O'Hanlon Perpetual Trophy)
	Helen Rutledge	Department of String Studies (Bernard B. Curtis Memorial Trophy)
	Leigh-Ann Jones	Department of Wind, Percussion, Voice & Drama Studies (Instrumental Award)
	Irina Riedewald	Department of Wind, Percussion, Voice & Drama Studies (Drama Award)
The most distinguished student in the Senior Cycle	Emily Crowley & Aisling Donnelly	Department of Keyboard Studies (Bridget Doolan Perpetual Trophy)

Award	Name	Department
The most distinguished student in the Senior Cycle	Zoö Nagle & Kevin Jansson	Department of String Studies
	Eoin Allen	Department of Wind, Percussion, Voice & Drama Studies (Instrumental Award)
	Shena Shortall	Department of Wind, Percussion, Voice & Drama Studies (Vocal Award)
	Fiachra Kelleher	Department of Wind, Percussion, Voice & Drama Studies (Drama Award)
The most distinguished students in the Department of Musicianship & Academic Studies	Aoibhinn Brennan	Windwise Programme
	Faustyna Long	Junior Musicianship
	Grace Coughlan & Séamus Hickey	Senior Musicianship
The most distinguished Post-Grade 8 Students	Jordan Bagot	Department of Keyboard Studies
	Yseult Cooper Stockdale	Department of String Studies
	Caoimhe Glavin	Department of Wind, Percussion, Voice & Drama Studies (Instrumental Award)

(ii) On 27 October 2016 awards were presented to full-time students as follows:

Award	Name	Year
The highest-placed Bachelor of Music (Hons) Degree Students	Meadhbh Campbell	Year 1
	Martha Campbell	Year 2
	David McElroy	Year 3
	Gary Beecher	Year 4 (BMus Student of the Year)
	Sophia Lynch	The best dissertation
	Martha Campell & Ed Creedon	John Vallery Memorial Travelling Scholarship
The highest-placed Bachelor of Arts (Hons) Popular Music Degree students	Kirsty Stewart	Year 1
	James O'Sullivan	Year 2
	Barry O'Connell	Year 3
	Áine Delaney	Year 4 (BAPM Student of the Year)

Award	Name	Year
The highest-placed Bachelor of Arts (Hons) Theatre & Drama Studies Degree students	Úna O'Brien	Year 1
	Katie Porter	Year 2
	Shannon Hurley	Year 3
	Sadhbh Barrett Coakley	Year 4 (BATDS Student of the Year)
The highest-placed Masters students	Cormac Ó hAodáin	Taught Masters in Music (Performance, Conducting, Composition)
	Mark O'Sullivan	Taught Masters in Music & Technology

10. 2nd year Biosciences student, **Dalton O'Shaughnessy**, represented CIT and Ireland at the European Championships in Slovenia from 21 – 28 October. He remarkably became heavyweight European Champion. He represented CIT with distinction on the European stage.
11. Conferring of Degrees and Other Awards for the Faculty of Engineering & Science and CIT CCAD took place in the Bishopstown Campus on Monday 24 October 2016. There were four conferring sessions. 810 graduands from the Faculty of Engineering & Science and 162 from CIT CCAD obtained their parchments. Also, the following joint award was conferred:
- Bachelor of Arts (Hons) in Multimedia – Hochschule Darmstadt/CIT
12. Conferring of Degrees on students of CIT CSM took place at the School on 27 October 2016. 90 graduands obtained their parchments. The first cohort of students graduated from the following programmes:
- Bachelor of Arts (Hons) in Theatre & Drama Studies
 - Bachelor of Arts (Hons) in Popular Music
13. On 27 October 2016, **Sharon O'Keeffe**, BBus in Culinary Arts, Year 2 won a Bronze Medal at the AEHT European Association of Tourism & Hospitality Schools Competitions held at The Tower Hotel in London. Sharon participated in the Pastry competition of which there were fifteen European teams competing for the top three prizes. Each competitor was paired with a student competitor from another country on the first day of the event. Sharon was teamed up with Guesieppi Lafrate, an Italian student and together they worked on preparing and serving the Pastry that was on the competition brief. Sharon and Guesieppi were both awarded a Bronze Medal.
14. The joint CIT/UCC Conferring Ceremony took place in UCC on 28 October 2016. The following joint Awards were conferred:
- Master of Architecture
 - Bachelor of Science (Honours) in Architecture
 - Bachelor of Science (Honours) in Biomedical Sciences
 - Professional Master of Education (Art & Design)
- 84 graduands obtained their parchments.
15. The CIT/Ireland team in finishing in 4th place in the Sailing World Cup on 7 November 2016. Overall results were:
- | | | |
|-----------------|---------|-----------|
| 1 st | Canada | 40 points |
| 2 nd | America | 41 points |
| 3 rd | England | 43 points |
| 4 th | Ireland | 50 points |

The team members representing CIT and Ireland showed great determination all week and have been fantastic ambassadors for CIT on the world stage.

16. The CIT team was victorious in the Men's Munster University Road Relays on 8 November 2016. The team consisted of:
- **Zach Harrington** (Common Entry Engineering)
 - **Craig Harrington** (Marketing Post Grad)
 - **Luke Horgan** (1st year Business Studies – Marketing)

The Ladies Team finished an excellent 2nd place in the Munster University Road Relays. The CIT team was:

- **Noreen Mackey** (3rd year Chemical Engineering)
 - **Aisling Everard** (3rd year Nutritional Health Science)
 - **Sue Finn** (3rd year Nutritional Health Science)
17. CIT's Mechanical Engineering student, **Vincent Forde**, was announced the winner of the Special Recognition Award at the Early Career Awards in the National Gallery in Dublin on 9 November 2016. The Irish Early Career Awards, in association with Lincoln Recruitment Specialists and Bank of Ireland celebrate excellence and recognises the achievements of young professionals in Ireland, and ultimately, rewards innovation, best practice, and outstanding achievement across a broad range of sectors.
18. CIT Biomedical and Sustainable Energy Engineering students, **Karen McDonnell** and **Lisa Mooney** (along with just one other student nationally), were selected from a very large national entry to be presented with the MEETA National Certificate Award of Excellence. The presentation of the awards took place at the MEETA National Awards Ceremony on 17 November 2016 in Dublin. Karen and Lisa were also in the final shortlist for the highly prestigious MEETA National Student First Place Award Winner 2016.
19. On 18 November 2016, students from the CIT Interior Architecture programme received awards in a national design competition. The annual competition is organised by Walls to Workstations (W2W) and Orangebox. The following CIT students won awards from 70 entries representing Ireland's top design colleges:

Position	Entrant
2nd Place	Nardjes Moulay Slimane
Highly Commended	Alvin Lai
Highly Commended	Alan Kingston

The first two winners won awards and internships with design practices.

20. On 22 November 2016, UCC hosted the 2015 Invention of the Year awards for the Technology Transfer Consortium between CIT, UCC and Teagasc. Each year, CIT Industry Liaison Office receives approximately 20 invention disclosures. The CIT short listed nominations for 2015 are as follows and there was one CIT winner from each category:

ICT

- **Active displays with infrared backlight – Annemarie McCarthy, Stephen Hegarty & Liam Lewis, CAPP**
- **Auto-correction of the incident light power for fluorescence sensing system – Shijie Deng and Stephen Hegarty, CAPP (Winner)**

BIO

- **MicroPrep Kit – Brigid Lucey and James O'Connor Biological Sciences**
- **An engineered Lactococcus lactis vaccine and drug delivery platform – Roy Sleator, Cormac Gahan (UCC), Eamonn Culligan and Shauna Keane, Biological Sciences (Winner)**

21. The CIT Sports Scholarship Presentation evening took place on 28 November 2016 in the Nexus Student Centre. The event saw 78 student athletes, across 18 different sports, presented with a prestigious sports scholarship. The guest speaker, Olympic Rowing Silver Medalist Gary O'Donovan, performed the presentations. Gary has been a CIT Sports Scholarship recipient for the past four years.
22. The Annual Presentation of Institute Prizes (honouring our outstanding graduates of 2016) took place on 29 November 2016 in the Council Room, Administration Building. Sixteen graduates obtained the following seventeen Awards:

No.	Name	Course	Award
1.	Leanne Elizabeth Batchelor	Bachelor of Science in Nautical Science	Best Bachelor Degree Student
2.	David William Jermyn	Bachelor of Engineering in Electrical Engineering	Best Bachelor Degree Student
3.	Brendan Keniry	Bachelor of Business in Accounting	Best Bachelor Degree Student
4.	Kevin Patrick Maher	Bachelor of Science in Computing	Best Bachelor Degree Student
5.	Gary Beecher	Bachelor of Music (Hons)	Best Honours Degree Student
6.	Jacinta Crowley	Bachelor of Business (Hons) in Accounting	Best Honours Degree Student
7.	Sabina Czernecka	Higher Diploma in Cloud and Mobile Software Development	Best Honours Degree Student
8.	Daniel Martin Dransfield	Bachelor of Engineering (Hons) in Electrical Engineering	Best Honours Degree Student
9.	Niall Egan	Bachelor of Science (Hons) in Nautical Science	Best Honours Degree Student
10.	Tomas Penc	Bachelor of Arts (Hons) in Fine Art	Best Honours Degree Student
11.	Catherine Ann Casey	Master of Science in Marketing Practice	Best Taught Masters Degree Student
12.	Chloe Kerins	Master of Architecture	Best Taught Masters Degree Student
13.	Cormac Ó hAodáin	Master of Art in Music (Performance)	Best Taught Masters Degree Student
14.	Louisa Schewe	Master of Arts in Art & Design Education	Best Taught Masters Degree Student
15.	Rafael Poyatero Escribano	Master of Science in Cloud Computing	Best Taught Masters Degree Student
16.	Rafael Poyatero Escribano	Master of Science in Cloud Computing	Best Overall Student
17.	Jeanienne McCarthy	Professional Master of Education in Art & Design	Marshall Hutson Award – Best Art Education Student

23. On 1 December 2016, Mechanical Engineering degree student, **Vincent Forde** who competed against intense competition at the Irish Best Young Entrepreneur South Cork LEO (Local Enterprise Offices) Finals, won two major awards – Best Business Idea Award 2016 and Overall Entrepreneur of the Year Award 2016. He now progresses to represent Cork and CIT in the National Stages of the Irish Best Young Entrepreneur 2016 Finals.
24. The 2017 IrelandSkills National Competition took place in CIT from 5 – 9 December 2016. This was a prestigious event for CIT and in particular for the Centre of Craft Studies. While the various crafts involved in the IrelandSkills National Competition are shared between CIT and DIT, this year CIT was proud to host competitions in eight skills areas as follows: Automobile Engineering, Carpentry, Construction Plant Fitting, Electrical Installation, Industrial Control, Joinery, Metal Fabrication, and Plasterwork & Drywall Systems.

25. The annual Faculty of Engineering & Science Awards Ceremony took place in the Bishopstown Campus on 8 December 2016. 54 awards were presented in the following Departments:

Department of Civil, Structural & Environmental Engineering	5
Department of Architecture	6
Department of Construction	3
Department of Mechanical, Biomedical & Manufacturing Engineering	6
Department of Process, Energy & Transport Engineering	5
Department of Electrical & Electronic Engineering	3
Centre of Craft Studies	8
Department of Physical Sciences	5
Department of Biological Sciences	6
Department of Computer Science	4
Department of Mathematics	3

26. The 2017 IrelandSkills winners in the various skills were presented with trophies at an Awards Ceremony held on 9 December 2016. The Deputy Lord Mayor, Cllr P.J. Hourican and the Deputy County Mayor, Cllr Derry Canty attended the event. The Registrar & Vice President for Academic Affairs, Dr Barry O'Connor gave the welcome address. The following students achieved 1st place:

- **Gavin Lyne**, Automobile Technology Phase 4
- **John O'Toole**, Construction Plant Fitting Phase 6
- **Brendan Muldowney**, Industrial Control Phase 4
- **Martin Crowe**, Metal Fabrication Phase 4
- **Tom O'Dwyer**, Plastering & Drywall Systems Phase 4

The winners from this competition will have the opportunity to be selected to represent Ireland at the 2017 WorldSkills competition which will be held in Abu Dhabi in October 2017.

27. The Conferring of Degrees and Other Awards took place in the NMCI on 16 February 2017. 95 graduands obtained their parchments which included 5 PhD Awards.
28. The President and Chairman of Governing Body presented the CIT RÍSAM Scholarships 2016 at a ceremony on Monday 27 February 2017 in the Council Room. The RÍSAM initiative was developed by the School of Graduate Studies as part of ongoing commitment to Doctor of Philosophy Education and Research. The scholarships are a full scholarship covering fees, a monthly stipend, and other relevant expenses. This year CIT received over 30 RÍSAM PhD applications which involves a full research proposal by potential academic supervisors and prospective PhD students. Each of these full proposals was reviewed by an experienced external Higher Education panel and from these 5 proposals were recommended for funding. The recipients are engaged in multifaceted research in the general public health field. The following were awarded PhD Scholarships:

Recipient	Department	Supervisors	Title and Research Proposal
Catherine Anna Kavanagh	Biological Sciences	Dr Karen Finn Dr Máire Begley Dr Barry Boland	Linking lipids to Neurodegeneration: Characterisation of altered lipid metabolism in amyotrophic lateral sclerosis (ALS) and identification of novel therapeutic targets for clinical intervention
Aimee Plante	Biological Sciences	Dr Fiona O'Halloran Dr Aoife McCarthy	Functional foods for the elderly: Comparing the bioactive properties of cheese to identify optimal products that promote healthy ageing
Laura Nyhan	Biological Sciences	Dr Michael Callanan Dr Maire Begley	Marrying mathematics and microbiology to improve food security; assessment of mathematical models to predict the growth of bacteria in re-formulated foods
Antonio Pichel Beleiro	Biological Sciences	Prof. Aidan Coffey Prof. Jim O'Mahony Dr Olivia McAuliffe	Structure determination of receptor-binding proteins and baseplate of Staphylococcus phage K, a therapeutic phage for control of MRSA
Carlota Márquez Graña	Process, Energy & Transport Engineering	Dr Caroline O'Sullivan Dr Keith Bryan Dr Sonja Vucen	Development of a Novel Single-Use Microneedle Design Platform for Increased Patient Compliance

29. CIT Innovation Week 2017 took place from 6 March to 10 March 2017. The annual event, which is now in its 6th year, saw a week-long series of events and activities promoting entrepreneurship and innovation across CIT's five campus locations. The schedule included a wide range of seminars, exhibitions, workshops and demonstrations. This year's event also hosted a Women in Business networking event. The highlight of the week was the Local Enterprise Offices (Cork) CIT Prize for Innovation Competition 2017 which awarded €10,000 in cash prizes and a €3,000 Nimbus Research Centre Development Prize to those whose inventions and business ideas were judged most creative, novel, innovative, and likely to succeed in the workplace. The winning teams are outlined below:

Award	Company Name	Students	Supervisor(s)
CIT Prize for Innovation – €4,000	Dialast	Biomedical Engineering & Mechanical Engineering students Kiran Shaju Daniel O’Riordan Kate O’Sullivan Cathal O’Sullivan Orla O’Donoghue Denis Hegarty	Mr Paul Keane, Lecturer, Dept. of Mechanical, Biomedical & Manufacturing Engineering
Best Business Opportunity – €1,500	Stroke Sense	Biomedical Engineering, Mechanical Engineering & Business students Cathal Merz Ciara Cronin Jamie Coleman Kevin O’Regan Connor McCarthy	Prof. Sean F. O’Leary, Senior Lecturer, Dept. of Mechanical, Biomedical & Manufacturing Engineering
Best Concept – €1,500	Stryde Tech	Biomedical Engineering & Mechanical Engineering students Muireann Hickey Alexander Sologub Jonathan Mullane Kevin Hayes Cian O’Leary	Mr Paul Keane, Lecturer, Dept. of Mechanical, Biomedical & Manufacturing Engineering
Best Pitch – €1,000	Crúthú	Multimedia Studies students Seán Ó Conraoí Tadhg McNealy Paul Savage	Mr Emmett Coffey, Lecturer, Dept. of Media Communications
Best Stand – €1,000	Kingfisher	Hospitality Management student Deirdre Feeney	Ms Mary McCarthy, Lecturer, Dept. of Tourism & Hospitality
Enactus & Social Innovation Award – €1,000	Aware Bear	Multimedia Studies students Valerie O’Brien Áine McAuliffe Clodagh O’Mahony	
Nimbus Research Centre Development Prize – €3,000	Artery Aid	Biomedical Engineering, Mechanical Engineering & Business students Kate Hawskby Tom Horgan John McCarthy David O’Leary Niall O’Connor Daniel Vaughen Damien Lacey	Mr Hugh O’Donnell, Lecturer, Dept. of Mechanical, Biomedical & Manufacturing Engineering Mr Scott McGowan, Assistant Lecturer, Dept. of Accounting & Information Systems Ms Lisa Murphy, Lecturer, Dept. of Management & Enterprise

30. The Presentation of the CIT Student Societies & Activities Awards 2017 took place on 3 April 2017 in the Bishopstown Campus. Thirteen Awards were presented by Dr Barry O'Connor, Registrar & Vice President for Academic Affairs who was representing the President. Guest Speaker, Trevor Ryan, CIT Graduate (former President Students' Union and Governing Body member). Trevor is the director of the well known Montfort College of Performing Arts and is co-writer and director of the annual Cork Opera House pantomime. The Awards Ceremony provided an opportunity to recognise the voluntary contribution of the 200 societies committee officers who coordinated activities in 42 societies.

Society Awards	
Society of the Year	Guild Gaming
Best Academic Society	Chemical Engineering
Supreme Event	Indian
Best New Society	"American Idiot" – Musical
Best Small Event	"Diwali" – Indian
Rísam Uile Award	"CIT Christmas Donation Drive" – Irish Red Cross & LGBT
Most Improved Society	Automotive

Individual Awards	
Kiran Shaju	Indian, Photographic & Enactus
Joshua Volfango	Guild Gaming
Stephanie Boyle	Dance
Marcus (Tia Zhao Quing)	International Student

Best Fresher	
Kelley Pierse	Anime & Manga

Supreme Achievement in Society & College-wide Activities	
Adrian Coleman	Guild Gaming, Anime & Manga

31. CIT hosted the 2017 IAVV Track & Field Championships on 7 and 8 April 2017 and held a banquet dinner which took place in the Clayton Hotel, Lapps Quay on 8 April 2017. Over 400 athletes from 22 Institutions participated. The CIT team finished in 10th position.
- **Thomas Houlihan** (Structural Engineering MEng) was once again victorious in the pole vault despite the fact he was carrying a shoulder injury
 - **Jessica Neville** (Medical Laboratory Science, Clinical Year) won a gold medal, winning a very tight 400mH in 63.37s
 - **Denise Byrne** (Montessori Education Graduate) claimed silver in the Javelin with a throw of 36.05m
 - **Daniel O'Mahony, Andrea Bickerdike, Séamus Rainsford** and **Andre Christie** also picked up valuable team points with top six positions
 - CIT's men's 4 by 400m relay team (**Daniel O'Mahony, TJ Hogan, Zach Harrington** and **Stephen Holland**) finished in an excellent 6th position in the 4 x 400m
32. **Aoife Hayes**, an MSc Research student in the Department of Architecture won the Environmental Sciences Association of Ireland (ESAI) Best Overall Oral Presentation at Environ 2017, which was held on 10 to 12 April in Athlone IT. The annual Environ Conference is the largest Environmental Conference hosted in Ireland and Aoife won the overall award in competition with Masters and PhD students from all the major HEIs on the island of Ireland.
33. The annual New Frontiers Entrepreneur Development Programmes' Showcase & Awards took place in the Rubicon Centre on Tuesday 25 April 2017. This event marked the culmination of Phases 2 and 3 of the Enterprise Ireland funded New Frontiers Programme, which is delivered by CIT's Rubicon Centre. The promoters of new projects showcased their businesses in a public domain and were all presented with certificates marking their achievement in completing the intensive programme. The Keynote speakers at the event was Mr Joe Healy, Divisional Manager for High Potential Start-Ups, Enterprise Ireland.

Five awards were presented on the night:

Award	Recipient/Company
Best Trade Stand Award	Tom Cotter – Rash'R
Best Business Plan Award	Ayooluwa (Wendy) Oke – TeachKloud
Most Innovative Product Award	Seán Ó Tuama - Firemole
Best Colleague Award	Kait Husmann – Cook & Cure
Best Business Opportunity and Overall Winner of New Frontiers 2016 Award	Paul Glavin – Glavloc Build Systems

34. On 26 April 2017, the CIT Sports Awards 2017 took place in the Tourism & Hospitality building. A wonderful gathering of students, staff, retired staff, coaches, parents, representatives from various Governing Bodies and friends gathered to applaud the valued contribution of Sports Clubs and their members in supporting the student-centered experience.

This event provided the ideal opportunity for the Institute to recognise students who have excelled in their chosen sport throughout the past academic year. The awards are based on outstanding achievements in their sport and/or administration of clubs within the Institute. Awards were presented as follows:

CIT Sports Award Recipients 2017		
Individual Award Winners x 12		
Name	Course	Sporting Achievements
Paul Kingston (Badminton)	Electrical Engineering Year 4	<ul style="list-style-type: none"> • Captain of CIT team - Student Sport Ireland Silver Medal Winners • CIT Committee member for the past two years • Has numerous county medals with his Club and has represented Cork from juvenile level to the present day
Declan Cahill (Basketball)	IT Management Year 4	<ul style="list-style-type: none"> • Super league player with Neptune BC since 2014 and Irish Junior International U16 • League semi-finalists and "B" Varsity winners with CIT 2014 • Intervarsity semi-finalists 2017 • Recipient of a Victory Scholars Programme
Rowan Johnson (Canoe)	Common Engineering Year 1	<ul style="list-style-type: none"> • Member of the Irish Paddle Surf team that was placed 2nd at the Home Internationals • 5th in the Whitewater Team event at this year's Intervarsities • 2nd in the Whitewater event at the Galway Festival
Vladimir Belujsky (Boxing)	Business Management Year 3	<ul style="list-style-type: none"> • Made his professional debut in March 2017 in the Grand Connaught Rooms, London with a 38-38 result against Anthony Fox • 1st place in the Slovakian Elite Championships • Celtic Box Cup Champion 2014 • Two time silver medallist at the Irish Athletic Third Level Boxing Association Championships
Meadhbh O'Callaghan (Karate)	Accounting Year 4	<ul style="list-style-type: none"> • CIT Chairperson for the past 3 years • Winner of 4 medals at this year's Intervarsities – 2 golds, a silver and a bronze • Awarded "Senior Female Competitor of the Year" at this year's Cork Martial Arts Promotions event
David O'Sullivan (Golf)	Business Management Year 3	<ul style="list-style-type: none"> • 2nd place in the Fermoy Junior Scratch Cup 2016 • Secured two sponsors for the CIT Club & set-up a new competition, the "Winter League Series" • Played on Fred Daly, Harbour Shield and Junior Cup teams

CIT Sports Award Recipients 2017 <i>Individual Award Winners continued</i>		
Name	Course	Sporting Achievements
Conor Skeehan (Racquetball)	Mechanical Engineering Year 4	<ul style="list-style-type: none"> Chairman and coach to the CIT Racquetball Club during his years in CIT Winner of the individual and doubles Fermoy Open Winner of the Galway Open doubles and silver in the Men's Open at the Intervarsities Led CIT to retain their All-Ireland Intervarsity title Member of the Irish Senior team
Siobhán O'Neill (Rockclimbing)	Environmental Science and Sustainable Technology Year 3	<ul style="list-style-type: none"> Current chairperson of CIT Rockclimbing Club Member of the CIT organising committee who hosted the Irish Colleges and Universities Rockclimbing Intervarsities
Aoife Walsh (Camogie)	MA in Human Resource Management	<ul style="list-style-type: none"> Captained CIT to Ashbourne Shield Victory 2017 CIT Purcell Cup winner 2016 Division 2 League medal with Cork 2014
Cian Murray (Surf)	Business Information Systems Year 2	<ul style="list-style-type: none"> Chairperson of CIT Surf Club who finished 6th place overall in the 2017 Intervarsities ASA Level 1 Surfing Instructor including surf rescue Accomplished surfer in Ireland and around the world notably in Australia, Indonesia, New Zealand and South Africa
Anthony Casey (Football)	Recreation & Leisure Management Year 3	<ul style="list-style-type: none"> U21 Munster & All-Ireland Finalists 2016 Premier Intermediate County Champions 2016 Sigerson & County Championship teams with CIT
Michael Kearney (Hurling)	Recreation & Leisure Management Year 3	<ul style="list-style-type: none"> Current Waterford Senior Winner of U21 Munster & All-Ireland medals Winner of Minor All-Ireland medal

"Rísam Uile" Awards x 2	
Camogie Club	<ul style="list-style-type: none"> Ashbourne Shield Winners 2017 Purcell Cup Winners 2016 Members on various intercounty teams
Racquetball Club	<ul style="list-style-type: none"> All-Ireland Intervarsity Champions 2016 & 2017. Winning 11 medals across 5 divisions at the 2017 Intervarsities Members competed in National Open competitions throughout the country, winning to date 5 Open Doubles titles, as well as 1 Gold and 2 Silver in Singles Two members on the Irish Senior panel

"Club of the Year" Award	
Badminton Club	<ul style="list-style-type: none"> Had the unique distinction of having two teams qualify for the Student Sport Ireland All-Ireland Finals Day Student Sport Ireland All-Ireland semi-finalists, as well as Silver Medal Winners Intervarsity Plate semi-finalists Great sense of comradeship and team spirit

"Graduate Achievement" Award	
Alan Bennett	Business (Hons)

- 35 The 31st Cork Mechanical, Manufacturing & Biomedical Engineering Exhibition took place on 27 April 2017 in the Bishopstown Campus. Based on CIT's designation as International Space University 2017, the 2017 Exhibition theme was "Space Engineering and Science". Now, in its 31st year, the Cork Mechanical, Manufacturing and Biomedical Engineering Exhibition with over 200 stands is Ireland's and Europe's largest educational engineering event. Combining entrepreneurship, multidisciplinary innovative product development and industrial participation, the student centric event has featured many major themed exhibits, including Formula 1 cars and reproductions of Leonardo da Vinci's studio/inventions. The Cork exhibition is a seminal fixture in promoting engineering on a national/international level and engineering a highly successful campus educational innovation eco-system.

Prior to the launch of the Exhibition, the following outstanding achievement awards were presented:

Presentation of CIT Awards by the President		
Award Title	Recipient(s)	
Tim Sexton Memorial Awards x 2	<p>Vincent Forde Student from BEng (Hons) in Mechanical Engineering (currently in Year 4)</p> <p>CIT Multidiscipline Start-Up Student Innovation Team HydroFLOcean H-FLOTM comprising the following:</p> <ul style="list-style-type: none"> • Gerard O'Connell, Arran Coughlan, Kelly Lane (all currently in Year 4 of the BEng (Hons) in Biomedical Engineering) • George O'Rourke, Shane O'Driscoll, Jason Shorten, John Harrington (all currently in Year 4 of the BEng (Hons) in Mechanical Engineering) • Kacey Mealy (2016 graduate of BBus (Hons)) 	<p>In recognition of outstanding achievements in 2016 including</p> <ul style="list-style-type: none"> • CIT 2016 Student Entrepreneur of the Year • Enterprise Ireland Student Entrepreneur of the Year 2016 • First Place Accenture Leaders of Tomorrow Award 2016 <p>In recognition of outstanding achievements in 2016 including</p> <ul style="list-style-type: none"> • CIT Prize for Innovation 2016 – Most Technically Innovative Product • Student Entrepreneur National Finals 2016 Cruickshank Intellectual Property Attorneys – National Award Winner • James Dyson National Award Winner 2016
Richard Hale Memorial Award	<p>Karen McDonnell 2016 graduate of BEng (Hons) in Biomedical Engineering</p>	<p>In recognition of outstanding achievement in 2016</p> <ul style="list-style-type: none"> • MEETA – Maintenance and Asset Managers Association: First Place National Student Overall Award Winner 2016 for project "Optimisation of the Packaging System at Wright Medical"

- 36 On 27 April 2017, the Students' Union hosted the Union Council Awards at which Class Reps were presented with Certificates of Merit in recognition of their voluntary contribution to campus life by Dr Barry O'Connor, Registrar & Vice President for Academic Affairs and Dr Dan Collins, Academic Administration & Student Affairs Manager. Class Reps are at the core of the Union's growth and development and play a key role in the communication process between students, staff and the SU. They contribute greatly to student engagement in CIT at both a local and national level as evidenced by their contributions to Sparq (Student Partnership in Quality) at CIT and NStEP (National Student Engagement Programme). The Award Recipients were:
- **Dawn Keyes**, 3rd Year Biomedical Science
 - **Boglarka Zsuzanna Krkos**, Postgraduate in Computational Biology
 - **Stephen McDonnell**, TD01 Nautical Studies
 - **Amy O'Keeffe**, 3rd Year Applied Physics & Instrumentation

- **Joshua Volfango**, 3rd Year Business Information Systems
- **Stephen Walsh**, 1st Year Software Development

James Flynn was awarded the prestigious CIT's "Presidential Citation" recognising his exceptional and outstanding service to the Students' Union at CIT.

- 37 BEng (Hons) in Structural Engineering student **Stephen Buckley** received an Excellence Award from Engineers Ireland on 27 April 2017 as the best Level 7 engineering graduate to progress to an Engineers Ireland accredited Level 8 programme. Stephen received his award from the President of Engineers Ireland, Dermot Byrne, at a ceremony in CIT.
- 38 CIT GAA Club had significant results over the weekend of 7/8 May 2017.
- **Jessica O'Shea** (Inch Rovers, Cork) who is a postgraduate in MA in Marketing Practice in CIT – played a starring role for Cork Senior Ladies Footballers in capturing their 5th consecutive National Senior Football League title as a result of their one point victory over Donegal on 7 May 2017.
 - CIT **Senior Hurling Team** had a 0:22 to 0:20 win over a very fancied Douglas side in the 1st round of the Cork Senior Hurling Championship at Páirc Uí Rinn on 7 May 2017.
- 39 CIT hosted the Enterprise Ireland Student Entrepreneur Awards on 8 June 2017 in the Tourism Dining Hall. The Enterprise Ireland Student Entrepreneur Awards, encourage third level students to start their own business as a career option. This year the Awards attracted submissions from over 560 third level students from colleges across Ireland. From the ten finalists, CIT had three who received awards as follows:
- Pendulife- National Merit Award of Excellence, €1,500
 - StrydeTech- Cruickshank Intellectual Property Attorneys
 - Most Technologically Innovative Award, €5,000
 - StrokeSense- Intel Outstanding ICT Award, €5,000
- 40 The Summer Conferring of Degrees and Other Awards took place in the NMCI on 20 June 2017. The following students were conferred:
- 60 NMCI graduands
 - 1 Master of Engineering graduand from the Department of Electrical & Electronic Engineering
 - 1 Master of Engineering graduand from the Department of Mechanical, Biomedical & Manufacturing Engineering
 - 2 Doctor of Philosophy graduands from the Department of Mechanical, Biomedical & Manufacturing Engineering
 - 1 Doctor of Philosophy graduand from the Department of Physical Sciences
 - 2 Doctor of Philosophy graduands from the Department of Computer Science
 - 1 Doctor of Philosophy graduand from the Department of Marketing & International Business

3.12 Student Ombudsman

The Governing Body approved the Student Grievance Policy at its meeting of 1 July 2010. This policy required the establishment of a new role of “Student Ombudsman” in CIT and set out terms of reference for this role reporting to the President.

The Student Ombudsman advises and assists students with the resolution of difficulties, complaints or grievances involving staff or services of the Institute in an informal manner.

The services provided by the Student Ombudsman may refer relevant student issues for resolution by those services as appropriate.

All enquiries to the Student Ombudsman are confidential, except in cases of serious threat to life or property.

Appointment of Student Ombudsman

Nominations were sought from the academic staff. The appointment of the following was made by the President following a review which included the Registrar & Vice President for Academic Affairs, and the President of the Students' Union.

- Mr Paul Sliney, retired member of the academic staff appointed from 24/9/2010 to 31/1/2012.
- Mr Kevin Kelly, retired member of the academic staff appointed from 1/2/2012 to 31 January 2013.
- Mr John P. Murphy, retired member of the academic staff appointed on 1/2/2013.

3.13 Access Service Report

CIT Access Service is committed to widening participation, increasing access and supporting positive educational outcomes for under-represented groups. The Access Service provides a range of supports for student groups who are under-represented at third level. The Access Service supports

- students with disabilities;
- mature students;
- students who experience socio-economic disadvantage and
- members of minority ethnic groups.

At post entry level the Access Service provides a wide range of supports that enhance the academic experience and learning outcomes of the students who engage with the Service. Supports include: personal; academic; and financial supports.

In delivering on the annual activity, the CIT Access Service acknowledges that 'Access is Everyone's Business' and as such it relies heavily on the support and collaboration of internal departments and offices. The Access Service would like to thank all faculties, departments and offices who engaged with us and supported them in delivering on its goals.

The academic year 2016-17

The past twelve months have presented internal and external challenges. Internally, three Access Service staff were lost due to a secondment and two maternity leaves. One staff replacement was approved from the internal team to cover the two maternity leaves, so while there was an Acting position approved, the team was reduced by two staff members. In February 2017, the Mature Student Officer left CIT to take a secondment elsewhere for 12 months. This position was advertised and an internal appointment was made, however, the last 3 months of the academic year was without a Mature Student Officer. Without these necessary positions filled, work had to be prioritised and anecdotal evidence suggests that post-entry supports for its Linked School students and mature students suffered.

Trends and developments externally and nationally also have an impact. For example, there has been a reduction of applications from mature students, owing largely to the upturn in the economy. Participation of mature students studying part time is now a target within the National Access Plan, however, without adequate funding supports for students who wish to study part-time, this target will be difficult to reach.

National reports can impact on the direction of the work that the Access Service gets involved in. This year, the Department of Education and Skills undertook a Delivering Equality of Opportunity in Schools (DEIS) Review. Formal relationships, programmes and links with HEIs are embedded in many of the recommendations for schools. This is significant for the Access Service's work through the Linked Schools Programme as it provides a justification for the formal links established.

The Access Service has been involved in the work of the *Cork Growing Lifelong Learning in Cork* group. It is important that CIT is involved in regional activities that promote lifelong learning, equity of access to education and social inclusion. CIT's strategic mission is to *'provide inclusive access to higher education: CIT aims to provide education opportunities which empower all motivated individuals to pursue personal, intellectual and professional enhancement'* (CIT Strategic Plan 2012-16). CIT has invested significant time and resources into the Cork Learning City programme. For over 14 years Cork has organised a Cork Lifelong Learning Festival which CIT has been very involved in. The Cork Learning City programme involves CIT, UCC, Cork ETB and the HSE.

Annual pre-entry programmes such as the Information Days, Review Meetings, school visits, school programmes, VEX Robotics were all delivered successfully in this academic year. New programmes were initiated with success, such as the Mental Health Awareness Event, and the production of a series of videos highlighting student stories.

At post-entry level, students presented needing support with personal, academic and financial support. Unfortunately with the loss of a Schools Project Coordinator for the academic year, the Access Service did not have the full one-to-one support available for students from Linked Schools requiring academic support. This was a tremendous loss and data analysis indicates that ten students who progressed from Linked Schools into first year programmes did not succeed. The loss of the Mature Student Officer for the last three months of the academic year, has also had impact. Further research into this is warranted to determine the true impact on mature student retention.

New Developments 2016-17

Cork as a UNESCO Learning City

In September 2016, Cork successfully bid to host the 3rd UNESCO International Conference on Learning Cities 2017. UNESCO was looking for a city in North America/Europe to host this conference and the Cork Learning Cities committee beat off stiff competition to secure Cork as the venue for this conference. It is expected that more than 650 delegates from over 95 UNESCO designated countries will be present in Cork. CIT, being a MOU partner, will have responsibility for a delegation on day 3 of the conference. This provides CIT with an opportunity to promote internationally what the Access Service does, make connections with learning cities across the globe and move one step closer to Cork being identified globally as a learning city.

In December 2016, Deirdre Creedon travelled to Hamburg to attend a UNESCO **Europe and North America Regional Workshop on Global Action Programme for Sustainable Development (ESD) and Cities**. Deirdre Creedon and Denis Barrett, Cork Learning City Coordinator, attended on behalf of the *Growing Lifelong Learning in Cork* (GLLiC) Committee.

The regional workshop examined how education and learning beyond the formal system can be used to achieve the Sustainable Development Goals (SDGs), particularly SDG 4 (*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*) and SDG 11 (*Make cities and human settlements inclusive, safe, resilient and sustainable*). Viewpoints and inputs were made during the meeting and provided a source of insight and ideas as to how to tackle the challenges of promoting all 17 SDGs through education and lifelong learning at city level.

Also in December, CIT hosted a visit from 5 South Korean visitors who came to Cork to identify best practice in relation to work on Learning Cities. The visitors were met by the President, Dr Brendan Murphy, the Registrar and Vice President for Academic Affairs, Dr Barry O'Connor and the Access Officer, Deirdre Creedon.

In February 2017, the Director of UNESCO Institute of Lifelong Learning visited CIT, as part of the planning for the UNESCO Global Conference which will take place in Cork in September 2017.

In June 2017, a Memorandum of Understanding was signed by CIT, UCC, Cork City Council and Cork ETB. This is an agreement between UNESCO Institute of Lifelong Learning and Cork City and Cork Learning City lead partners.

Learning Neighbourhoods

The Learning Neighbourhoods Programme aims to continue to build a culture of lifelong learning across Cork City's neighbourhoods. The programme was piloted by the Adult and Continuing Education Department, UCC and now involves collaboration between UCC, Cork City Council, CIT, and Cork Education and Training Board (ETB). The programme works with the learning and education organisations and residents in each area to promote and develop active local lifelong learning. CIT was invited to join the initiative in 2017 and now the CIT Access Officer sits on the Learning Neighbourhoods Programme Steering Group. The Access Service took part in a Learning Showcase in Togher in April 2017.

Mental Health Awareness Day

Jamie Googan, Access Service Intern, organised and delivered a new initiative focused on promoting positive mental health to young people from CIT's Linked Schools. In January 2017, 210 second-level students came on campus for an interactive informal 'couch talk' session where guest speaker Mr Paul Kerrigan (Cork Football Captain & CIT Alumni) and Jamie Googan, CIT graduate discussed topics such as depression, anxiety and low self-esteem. In addition to inputs from the CIT Access Service Team, there was also inputs from Kay Walsh, CIT Counselling Service. Mr Maurice Murphy, Lecturer in Management and Enterprise at the Institute, was Master of Ceremonies for the event. The event was also supported by the CIT Students' Union, and Andrea Bickerdike, Joan Dinneen and Dr Cian O' Neill "A Healthy CIT Campus Initiative".

Traveller Education Seminar – 11 October 2016

The National Plan for Equity of Access to Higher Education 2015-19 has for the first time set a target for increasing the participation in higher education by people from the Irish Traveller community. The target for 2019 is 35 students (part-time and full-time).

The CIT Access Officer together with the Cork Traveller Education Interagency Group organised a National Seminar on the theme '**Irish Travellers and Higher Education: Supporting Progression**'. The purpose of the seminar was to:

- showcase existing models of Traveller educational support initiatives
- provide a forum to identify current challenges

- present an opportunity to determine how best to support Traveller progression to Higher Education in the context of the new national targets

More than 80 people from across Ireland attended the seminar. A CIT graduate and CIT student, both from the traveller community, shared their personal educational stories.

Organisers: The Cork Interagency Traveller Education Committee (CIT, Cork ETB, UCC, Cork City Partnership, Traveller Visibility Group, participating schools, Tusla, Cork City Council). In June 2017, the report from this seminar was launched during Traveller Pride Week.

EcCo Well

In October 2016, Cork City Council and EcCo Well Cork organised a month long programme of events that celebrated what the city has to offer. Urban October in Cork was a programme of free events celebrating the City Centre, and included tours and talks, performances and workshops, aimed at all ages. A thriving city centre is essential for Cork's economic prosperity and also plays an essential role in its social and cultural identity.

The Access Officer represented CIT on the EcCo Well committee and was involved in organising an event during Urban October called "Working Towards a Sustainable City", which explored organisations and activities supporting quality of life and wellbeing in Cork.

Access – The Student Voice – Video Production

In 2015-16, CIT Access Service produced a publication called 'The Student Voice' which highlighted the personal stories of 12 students and graduates who have been supported by the CIT Access Service.

In 2016-17, student stories were captured on video and 15 short videos highlighting student stories and student supports were produced. Student testimonials have enormous impact on prospective students, parents and stakeholders.

The videos allow students a voice, an opportunity to share their personal educational journey. Their personal story gives a unique insight not only into the struggles and the challenges that can face students, but also the supports available that can help students achieve their goal. Their honesty in highlighting the challenges they met along this journey and how, with adequate support, they overcame these challenges, is inspiring, refreshing and enlightening.

Jamie Googan, CIT Access Service Intern, produced the videos and also shared his story on camera as he too was supported as an undergraduate student in CIT. Jamie believes *'that having the courage to speak out and share your story can have a very positive impact on other students who are challenged in the same way'*. The Access Service Team thanked the students who willingly contributed to this publication.

The playlist for Access videos can be found on the following link:

<https://www.youtube.com/playlist?list=PL8FtTHLIURFNbSljvEdcBqQe-INaqePD->

Research, Conferences and Representation

- Mature Student Ireland – Sinéad O'Neill, CIT Mature Student Officer – Hon. Secretary
- Confederation of Student Services Ireland – Deirdre Creedon, CIT Access Officer – Representing HEI Access Officers
- THEA Access Officers – Deirdre Creedon, CIT Access Officer
- AMA Access Officers (All HEIs) – Deirdre Creedon, CIT Access Officer
- DARE (Disability Access Route to Education)– Educational Impact Statement Advisory Board and the DARE Operations Group, Laura O'Rourke, Disability Support Officer
- DAWN (Disability Advisors Working Network) Reasonable Accommodations Working Group, Ruth Murphy, Disability Projects Coordinator

Creedon, D. March 2017. *Progression Opportunities for Further Education Students through the Cork Colleges Progression Scheme*, Institute of Guidance Counsellors Conference, UCC

Creedon, D. June 2017. *Parental Involvement in Assisting Students from Access Linked Schools to Transition to Third Level*, Confederation of Student Services Conference, UCC

College Awareness Week

The Access Service organised a number of events throughout College Awareness Week in November 2016. One new initiative that was piloted was the Mature Students Selfie Competition initiated by Mature Student Ireland. The competition was a campaign to highlight and gather the experiences/learning of mature students in Irish HEIs.

Teaching and Learning Module

The Access Officer fed into the programmatic review on the MA in Teaching and Learning. In this past academic year, there was only one staff member who needed to complete the Equality Policy and Practice module in order to complete the Master's programme. The Access Officer met with this staff member and supported him through the module so that he could submit his assignment work for the module. This brings to 12, the number of staff who have taken this module for academic credit.

Young at Heart Group

The Access Officer, following a radio interview for Cork Community Radio, was approached by a senior citizens group requesting a visit to CIT. The Access Service previously carried out research which indicated the importance of one significant adult in motivating and support young people, be that a parent, teacher or grandparent. Twenty-three senior citizens came on campus in April to have a tour of facilities, a talk on what opportunities exist for learners of all ages, and the supports available. They were also met by the Registrar and Vice President for Academic Affairs, Dr Barry O'Connor who welcomed them to CIT and encouraged them to use the campus.

Overview of the Disability Support Service (DSS)

The DSS promotes an inclusive educational environment, where independent learning and the development of skills that are transferable is encouraged. It is currently estimated that students with disabilities make up 5.2% of the total student population (AHEAD, 2017).

The DSS staff team is comprised of 4 full-time members of staff (Disability Officer, Disability Projects Officer, Assistive Technology Officer, and Learning Support Coordinator), as well as two staff members who work part-time in other campuses.

A total of 756 students registered with the DSS in 2016/17, a significant leap from 643 in 2015/16 (17.5%). There were 608 full time students and 148 part-time students (including apprentices) and this also included 50 mature students and 9 international/Erasmus/non-Irish students.

The DSS registered that a total of 181 students were new incoming first years but the total new registrations from CIT students with the DSS was 253 this year. With a total of 756 students registered with the DSS, this represents 6.2% of the total student population.

Financial Support

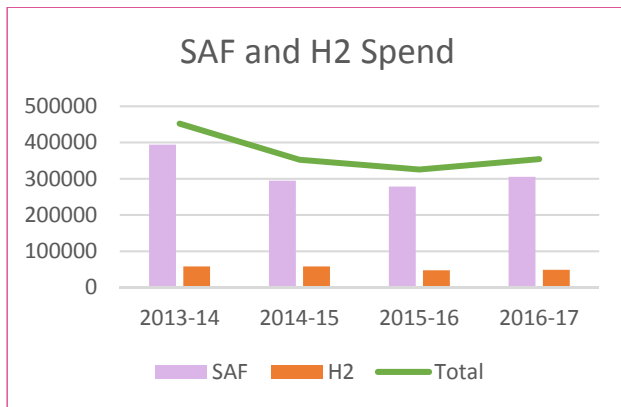
The main source of financial support available to students outside of the national Student Universal Support Ireland Scheme (SUSI) is the European Social Fund (ESF) Student Assistance Fund (SAF). The SAF provides financial assistance for full-time students who are experiencing financial difficulties whilst attending college. Students can apply for Student Assistance to help them with either temporary or ongoing financial difficulties. The fund allocated annually by the HEA is 50% allocated on the basis of FTEs and 50% on the basis of the number of students in the institution from target socio-economic groups (SEGs), as collected through Equal Access data collection.

In August 2016, the Institute received notice that the SAF allocation was €376,641. This was an increase of €28,000 on the previous year. There was no second allocation received. This larger spend **supported 305 students** (118 females, 187 males). 46% of the students availing of SAF financial support in 2015-16 were mature students.

A smaller fund exists in CIT known as the Hardship 2 (H2) Fund. This fund provides support to students who, because of restrictions/ineligibility, cannot be funded out of the ESF Student Assistance Fund. The ESF Student Assistance fund is governed by the ESF and strict guidelines relating to its use are applied. H2 is a CIT fund and its use is governed/controlled by CIT. Students who have difficulty with the payment of fees and repeat students are predominantly the students supported through this fund. In this academic year, 60 students have been assisted through the hardship fund and the total amount paid for 2016/17 is €48,822.84.

The chart below also shows a slight increase in spend on the H2 Fund this year. The numbers of students supported with this fund is beginning to rise again from 52 in 2015-16 to 60 in 2016-17. Fee issues are continuously a struggle for students who

do not meet SUSI criteria, for example, if repeating a year, if changing course, if family income is marginally over the cut off points, etc.





NIMBUS RESEARCH CENTRE, CIT BISHOPSTOWN CAMPUS



CIT BLACKROCK CASTLE OBSERVATORY

4. Research, Innovation and Entrepreneurship, External Engagement and Extended Campus Activities, Alumni Engagement, and International & EU Activities

Cork Institute of Technology

- 4.1 Research & Innovation**
- 4.2 Research Publications**
- 4.3 Innovation and Commercialisation**
- 4.4 Incubation and Entrepreneurship**
- 4.5 External Engagement and
Extended Campus Activities**
- 4.6 Alumni Engagement**
- 4.7 International & EU Activities**

4.1 Research & Innovation

Research Metrics

The research metrics/outputs for 2016/2017 can be summarised in the following table.

Metric	Reported Number
Research Funding Projects awarded (National)	31
Research Funding Projects awarded (EU/Intl)	16
Research projects with substantial industry involvement awarded	21 Excluding vouchers of 42 and any H2020 awards to CIT with company partners
Journal Publications (peer reviewed)	42
Journal Publications (other)	13
Conference Publications (peer reviewed)	46
Newspaper articles, book reviews	18
Invited presentations	29
Major Seminars, colloquia hosted	4
Outreach events involving public	21
Awards/Recognition	9
Book Chapters authored	2
Artistic/Performance outputs	Numerous CIT CSM/CIT CCAD

Researcher Career Framework (RCF)

The Research Office and Human Resources (HR) Office, along with Enterprise Support Networks (ESN), completed the application in 2016 for the EU Commission HR Excellence in Research Badge - HRS4R. The submission is available via <http://www.cit.ie/research/hrs4r>. The submission included a Gap Analysis, and a Strategy and Action Plan, and these were an integral part of rolling out the next phases of the CIT Researcher Career Framework (RCF). In early 2017, CIT was awarded the Excellence in Human Resources badge from EURAXESS. CIT can now use the 'HR Excellence in Research' award to help promote itself as a provider of a stimulating and favourable research environment. The award reflects the Institute's commitment to continuously improve human resource policies in line with the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, notably commitment to achieve fair and transparent recruitment and appraisal procedures. In the full report, the reviewers were particularly complementary of the RCF which is being rolled out across the Institute.

Research Entity Designation

Six Research & Innovation (R&I) entities were reviewed in November and December 2016 for formal designation, and were successful in achieving designation for a three-year period:

- SIGMA Research and Innovation Group - Applying advanced software and computational techniques to real world applications;
- MeSSO Research and Innovation Group - Optimising the performance and design of mechanical systems;
- E³L Research and Innovation Group - Focuses on engagement interactions between HEIs and external organisations, with a particular focus on experiential learning;
- EdTech Research and Innovation Group - Pedagogically-orientated research into the application of new and emerging technologies to facilitate learning at all levels;
- SIRIG Research and Innovation Group - Engineering infrastructures with an emphasis on sustainability;
- RIOMH Research and Innovation Group - Computing for cloud and distributed systems.

Research Centre and Group Activity

Nimbus Research Centre

CIT became involved through Prof. Dirk Pesch, Prof. John Barrett, Dr Victor Cionca, Dr Alex Vakaloudis, and Dr Kritchai Witheephanich in the new SFI funded CONFIRM Centre for Future Manufacturing. This is a 6 year initiative led by University of Limerick with a total of €24.5M funding from SFI and with a similar cash and in-kind financial commitment from industry.

CIT was allocated a significant share in the Centre to the order of €3.5million over 6 years. When aggregated to the recent SFI ENABLE funding, it brings the Nimbus Research Centre SFI-funded income to over €1million per annum, making SFI the largest funding agency for the Nimbus Research Centre, larger than Enterprise Ireland. CIT is one of the few IoTs which has placed strategic importance on engaging with SFI over the past ten years by protecting the need to perform fundamental research in areas of national importance, and the Institute is now involved in more SFI Centres than any other Technological Higher Education Association (THEA) member.

Other Nimbus Research Centre activities included:

- The TOPA's European consortium of academic and industrial partners, led by Motorola Solutions, completed connecting the first pilot buildings in a project aimed at reducing energy consumption. In conjunction with the Buildings and Estates office, the pilot buildings at CIT were connected with the 1st prototype of the TOPA's project (Tools for Continuous Building Performance Auditing) cloud-based analytic platform.
- EU FP7 Project GENic - "Globally optimized ENergy efficient data Centres", which the Nimbus Research Centre coordinated, was successfully completed with an excellent review report from the EU. The reviewers commended the project team led by the Nimbus Research Centre on its achievements during the project.
- There was an extremely positive mid-term review of the SFI funded Investigator Grant project SURF, where Prof. Pesch is co-PI in collaboration with Prof. Siobhán Clarke of Trinity College Dublin (TCD). The international review panel, with well-known professor reviewers from institutions such as University of Oxford, commended the research team on its achievements and innovation in this project.

BioExplore and Food Research

A large number of grants commenced in 2017 involving Food Research. The key programmes are shown below:

Funding agency	Title	Coordinator	Total grant	CIT share
FIRM (Food Institutional Research Measure): Irish Dept Agriculture (2017-2021). Project Ref: 15F641 Start date: 1 Feb 2017	Clean broilers through enhanced farm biosecurity, processing prerequisites and HACCP based interventions	Dr D Bolton Teagasc	€1,118,671.00	€110,613.00
Teagasc Walsh Fellowship (2017-2021) Project Ref:2017265 for PhD student Caoimhe Lynch Start date: 1 Feb 2017	Baseline survey of prevalence of campylobacters in Irish broiler flocks and carcasses and slaughter/processing factors contributing to <i>Campylobacter</i> levels in broilers at retail	Co-investigator with Dr D Bolton Teagasc	€ 88,000	€ 88,000
FIRM (Food Institutional Research Measure): Irish Dept Agriculture (2017-2021). Project Ref: 15F641 Start date: 1 Jan 2017	Novel Technological Approaches for the development of low FODMAP food products	Prof. Elke Arendt UCC	€1,072,198.05	€101,400.00
FIRM (Food Institutional Research Measure): Irish Dept Agriculture (2017-2021). Project Ref: 15F641 Start date: 1 Mar 2017	Antiyeast: Isolation, characterisation and exploitation of natural anti-yeast agents and their application as consumer-friendly preservatives in food and beverages	Prof. Aidan Coffey CIT	€421,200.00	€210,600.00

Centre for Advanced Photonics and Process Analysis (CAPPA)

Prof. Guillaume Huyet gave an invited lecture at the i-Now workshop during the summer in Wuerzburg and at the European Semiconductor workshop in TU- Darmstadt. Prof. Huyet was also invited to visit Technion University (Israel) and an invited Professor at the Institut-Mines Telecoms where he spent a month during the summer. Prof. Huyet was also invited to be a panel member at the yearly alumni conference of the ENS de Lyon.

Other achievements included:

- An SFI TIDA grant was awarded to Dr Anne-Marie McCarthy (CAPPA)
- Dr David Williams was invited to speak at the Inspire KETS Workshop in Tyndall
- Dr Tomasz Ochalski, PROMIS Workshop, Rome
- EI Comm Fund (S. Deng, €114k)
- Teagasc Walsh Fellowship (Dr T Ochalski, €72k)
- EI IPP Astellas (M McAuliffe, €46k)
- Tyndall Catalyst Award (S Schulz, €21k)

Technology Enhanced Learning Group (TEL) Highlights

TEL presented a well-received paper on the “TELU” platform (<http://telu.me>), an ongoing CIT-led project funded by the National Forum for the Enhancement of Teaching and Learning based around the concept of micro-learning, at the prestigious annual Association for Learning Technology (ALT) conference in Warwick University in September. TEL also had a paper on the TELU platform and a paper on an online assessment productivity app they developed accepted for the upcoming fourth International Conference on Learning and Teaching (TIC2016) in Tunku Abdul Rahman University College, Kuala Lumpur, Malaysia.

The final results of the EU-funded research project, Prometheus were made available at <http://prometheus-eu.net>. This EU Erasmus+ project, was aimed at career counsellors and guidance practitioners to aid in making the counselling process more relevant to the next generation. As part of the project, staff from the Department of Technology Enhanced Learning and researchers from the TEL group developed an online social platform with peer networking opportunities for career counsellors, a repository for containing best practices, online guides and toolkits for counsellors.

The National Forum funded project, coordinated by the Department of Technology Enhanced Learning, TELU (<http://telu.me>) continues to be of use to the wider edtech world and now has over 250 users, as well as more than 100 online courses (<http://telu.me/all-courses>) and animated videos (<https://goo.gl/yDvXZD>).

Software Innovation and Machine Intelligence Applications Group (Sigma)

Prof. Paul Walsh (Head of the Sigma Group) won a prestigious SFI Industry Fellowship award for the SIGMA Software Innovation Research. The aim of this project was to build a foundation for a world-class capacity in CIT for research in the application of cloud computing leading to the development of a cancer molecular diagnostic multi-gene assay platform. The award was planned to enable SIGMA researchers to closely collaborate with a world-leading expert in this area, Prof. Dr med. Michael Kramer, who is the founder and Managing Director of ImmBioMed GmbH, Germany. The specific aim of this project was to apply cloud computing methodologies to rapidly and accurately process cancer big data sets.

The Halpin Centre

The Halpin Centre was successful in two H2020 programmes:

- SEDNA is a 3 year Horizon 2020 project about Safer Arctic Ship Operations and will be led by British Maritime Technologies, BMT (UK).
- CAMELOT is a 3 year Horizon 2020 project about C2 Advanced Multi-domain Environment and Live Observation Technologies and involves maritime border surveillance, command and control and unmanned platforms related work.

HORIZON 2020 Funding

CIT performed well in H2020 during 2016/2017, consistently the top performing Institute of Technology in terms of funding drawdown and success rate.

Blackrock Castle Observatory (BCO)

The new Fáilte Ireland funded “Journeys of Exploration” was installed over summer 2016. Space Week - the newest national STEM week, was coordinated by BCO during October 2016 (www.spaceweek.ie). There were 308 registered events which

was an excellent achievement, considering this was the first year of this new STEM week and it also represented 13% of the events run worldwide for World Space Week, a remarkable result for a country the size of Ireland.

The Observatory received the largest number of grants since it opened in 2007, including one from Qualcomm Foundation International, €50k for BCO to deliver a STEM programme nationally leading up to Space Week.

Other news from BCO included:

- BCO was the filming location for “Nationwide” and for the Today Show in November. There was also a special report on space on Drivetime on RTE also in November which was part-recorded at BCO.
- Dr Niall Smith led a live in-flight call with the International Space Station in Limerick in January 2017 involving 300 primary schoolchildren.
- The European Space Education Resource Office partnered with BCO to develop a national Continuous Professional Development primary teacher programme using space as the foundation material.
- BCO was part of a consortium which bid to build Ireland’s first satellite, EIRSAT-1, led by University College Dublin (UCD) and Queen’s University Belfast. The bid was successful and BCO was tasked to lead the outreach and public dissemination of this incredibly exciting project.
- As part of the 10-year celebration of BCO, and in parallel with SSP17, the Observatory produced a brochure of 53 space-related events – A Summer of Space – that ran concurrently with SSP17 from June to August. Over 10,000 copies were distributed.

International Space University Summer Space Programme 2017

This 9-week programme took place from 26 June to 25 August 2017 and was the largest programme of its kind globally, including 200 participants and faculty on the CIT Bishopstown campus. The ISU poster and video may be viewed on <http://www.isunet.edu/pages/isu-space-studies-program-2017-in-cork-ireland-from-26-june-to-25-august-2017/397>

The Irish Examiner was the media partner, ensuring significant print and social media coverage, with a 32-page supplement in the Irish Examiner published to coincide with the Opening Ceremony on 26 June in City Hall. The Museum of the Moon, an exhibit by UK-artist Luke Jerram, was installed in the Nexus Student Centre in association with Cork Midsummer Festival and was received extremely well by the visiting public with front-page/back-page photos in the Independent and Irish Examiner respectively.

European Space Agency Space Solutions Centre (ESA SSC)

The ESA SSC consortium, led by the Tyndall National Institute, was launched in Cork during the year. CIT is a partner in this consortium through its participation in the IMERC cluster. The other partners are Athlone Institute of Technology and Maynooth University, in addition to the other IMERC partners, UCC and the Irish Naval Service.

4.2 Research Publications

1. Aartsen, M. G., Ackermann, M., Adams, J., Aguilar, J. A., Ahlers, M., Ahrens, M., Soumagnac, M. (2017). Multiwavelength follow-up of a rare IceCube neutrino multiplet. *Astronomy and Astrophysics*, 607 doi:10.1051/0004-6361/201730620. Retrieved from www.scopus.com.
2. Abdelfadeel, K. Q., Cionca, V., & Pesch, D. (2017). LSCHC: Layered static context header compression for LPWANs. Paper presented at the CHANTS 2017 - Proceedings of the 12th Workshop on Challenged Networks, Co-Located with MobiCom 2017, 13-18. doi:10.1145/3124087.3124092. Retrieved from www.scopus.com.
3. Abeysekara, A. U., Archambault, S., Archer, A., Benbow, W., Bird, R., Brose, R., Zitzer, B. (2017). Discovery of very-high-energy emission from RGB J2243+203 and derivation of its redshift upper limit. *Astrophysical Journal, Supplement Series*, 233(1) doi:10.3847/1538-4365/aa8d76. Retrieved from www.scopus.com.
4. Abeysekara, A. U., Archambault, S., Archer, A., Benbow, W., Bird, R., Buchovecky, M., Zefi, F. (2017). A luminous and isolated gamma-ray flare from the blazar B2 1215+30. *Astrophysical Journal*, 836(2) doi:10.3847/1538-4357/836/2/205. Retrieved from www.scopus.com.
5. Abeysekara, U., Archambault, S., Archer, A., Benbow, W., Bird, R., Buchovecky, M., Baloković, M. (2017). A SEARCH for SPECTRAL HYSTERESIS and ENERGY-DEPENDENT TIME LAGS from X-RAY and TeV GAMMA-RAY OBSERVATIONS of mrk 421. *Astrophysical Journal*, 834(1) doi:10.3847/1538-4357/834/1/2. Retrieved from www.scopus.com.
6. Ahmed, T., Lu, T., Butler, T. P., Kulick, J. M., Bernstein, G. H., Hoffman, A. J., Howard, S. S. (2017). Mid-infrared waveguide array inter-chip coupling using optical quilt packaging. *IEEE Photonics Technology Letters*, 29(9), 755-758. doi:10.1109/LPT.2017.2684091. Retrieved from www.scopus.com.
7. Ahnen, M. L., Ansoldi, S., Antonelli, L. A., Antoranz, P., Babic, A., Banerjee, B., Readhead, A. C. S. (2017). Multiband variability studies and novel broadband SED modeling of mrk 501 in 2009. *Astronomy and Astrophysics*, 603 doi:10.1051/0004-6361/201629540. Retrieved from www.scopus.com.
8. Allen, C., Archambault, S., Archer, A., Benbow, W., Bird, R., Bourbeau, E., Williams, D. A. (2017). Very-high-energy γ -ray observations of the blazar 1ES 2344+514 with VERITAS. *Monthly Notices of the Royal Astronomical Society*, 471(2), 2117-2123. doi:10.1093/mnras/stx1756. Retrieved from www.scopus.com.
9. Alyami, A., Saviello, D., McAuliffe, M. A. P., Cucciniello, R., Mirabile, A., Proto, A., Iacopino, D. (2017). Chemically stable Au nanorods as probes for sensitive surface enhanced scattering (SERS) analysis of blue BIC ballpoint pens. Paper presented at the AIP Conference Proceedings, 1873 doi:10.1063/1.4997132. Retrieved from www.scopus.com.
10. Alyami, A., Saviello, D., McAuliffe, M. A. P., Mirabile, A., Lewis, L., & Iacopino, D. (2017). Metal nanoinks as chemically stable surface enhanced scattering (SERS) probes for the analysis of blue BIC ballpoint pens. *Physical Chemistry Chemical Physics*, 19(22), 14652-14658. doi:10.1039/c7cp01983a. Retrieved from www.scopus.com.
11. Archambault, S., Archer, A., Benbow, W., Bird, R., Bourbeau, E., Bouvier, A., Zitzer, B. (2017). Gamma-ray observations under bright moonlight with VERITAS. *Astroparticle Physics*, 91, 34-43. doi:10.1016/j.astropartphys.2017.03.001. Retrieved from www.scopus.com.
12. Archambault, S., Archer, A., Benbow, W., Bird, R., Bourbeau, E., Brantseg, T., Zitzer, B. (2017). Dark matter constraints from a joint analysis of dwarf spheroidal galaxy observations with VERITAS. *Physical Review D*, 95(8) doi:10.1103/PhysRevD.95.082001. Retrieved from www.scopus.com.
13. Archambault, S., Archer, A., Benbow, W., Bird, R., Bourbeau, E., Buchovecky, M., Zitzer, B. (2017). Gamma-ray observations of tycho's supernova remnant with VERITAS and fermi. *Astrophysical Journal*, 836(1) doi:10.3847/1538-4357/836/1/23. Retrieved from www.scopus.com.
14. Archambault, S., Archer, A., Benbow, W., Buchovecky, M., Bugaev, V., Cerruti, M., Zitzer, B. (2017). Search for magnetically broadened cascade emission from blazars with VERITAS. *Astrophysical Journal*, 835(2) doi:10.3847/1538-4357/835/2/288. Retrieved from www.scopus.com.

15. Asaleye, D. A., Breen, M., & Murphy, M. D. (2017). A decision support tool for building integrated renewable energy microgrids connected to a smart grid. *Energies*, 10(11) doi:10.3390/en10111765. Retrieved from www.scopus.com.
16. Baroutaji, A., Carton, J. G., Oladoye, A. M., Stokes, J., Twomey, B., & Olabi, A. G. (2017). Ex-situ evaluation of PTFE coated metals in a proton exchange membrane fuel cell environment. *Surface and Coatings Technology*, 323, 10-17. doi:10.1016/j.surfcoat.2016.11.105. Retrieved from www.scopus.com.
17. Baroutaji, A., Lenihan, S., & Bryan, K. (2017). Combination of finite element method and drucker-prager cap material model for simulation of pharmaceutical tableting process: Kombination der finite-elemente-methode mit dem drucker-prager cap materialmodell zur simulation von pharmazeutischen tablettierungsprozessen. *Materialwissenschaft Und Werkstofftechnik*, 48(11), 1133-1145. doi:10.1002 /mawe.201700048. Retrieved from www.scopus.com.
18. Barry, M., & Murphy, M. (2017). Changing population salt intake behaviour: Lessons from the UK salt reduction strategy. *Social marketing: Rebels with a cause*, third edition (pp. 478-481) doi:10.4324 /9781315648590. Retrieved from www.scopus.com.
19. Beattie, J. R., Caraher, M. C., Cummins, N. M., O'Driscoll, O. M., Eastell, R., Ralston, S. H., & Towler, M. R. (2017). Raman spectral variation for human fingernails of postmenopausal women is dependent on fracture risk and osteoporosis status. *Journal of Raman Spectroscopy*, 48(6), 813-821. doi:10.1002 /jrs.5123. Retrieved from www.scopus.com.
20. Bergmann, D., O'Connor, D., & Thümmel, A. (2017). Price and volatility transmission in, and between, skimmed milk powder, livestock feed and oil markets. *Outlook on Agriculture*, 46(4), 248-257. doi:10.1177/0030727017744928. Retrieved from www.scopus.com.
21. Bertuzzi, A. S., Guinane, C. M., Crispie, F., Kilcawley, K. N., McSweeney, P. L. H., & Rea, M. C. (2017). Genome sequence of staphylococcus saprophyticus DPC5671, a strain isolated from cheddar cheese. *Genome Announcements*, 5(16) doi:10.1128/genomeA.00193-17. Retrieved from www.scopus.com.
22. Boljevic, S. (2017). Cost of optimal placement of a CHP plant within existing UDN. Paper presented at the International Conference on the European Energy Market, EEM, doi:10.1109/EEM.2017.7981864. Retrieved from www.scopus.com.
23. Bolocan, A. S., Pennone, V., O'Connor, P. M., Coffey, A., Nicolau, A. I., McAuliffe, O., & Jordan, K. (2017). Inhibition of listeria monocytogenes biofilms by bacteriocin-producing bacteria isolated from mushroom substrate. *Journal of Applied Microbiology*, 122(1), 279-293. doi:10.1111/jam.13337. Retrieved from www.scopus.com.
24. Bond, R. R., Zheng, H., Wang, H., Mulvenna, M. D., McAllister, P., Delaney, K., Engel, F. (2017). SenseCare: Using affective computing to manage and care for the emotional wellbeing of older people doi:10.1007/978-3-319-49655-9_42. Retrieved from www.scopus.com.
25. Butler, T. P., Goulding, D., Kelleher, B., O'Shaughnessy, B., Slepneva, S., Hegarty, S. P., & Huyet, G. (2017). Direct experimental measurement of single-mode and mode-hopping dynamics in frequency swept lasers. *Optics Express*, 25(22), 27464-27474. doi:10.1364/OE.25.027464. Retrieved from www.scopus.com.
26. Butler, T. P., Slepneva, S., McNamara, P. M., Neuhaus, K., Goulding, D., Leahy, M., & Huyet, G. (2017). Real-time experimental measurement of swept source VCSEL properties relevant to OCT imaging. *IEEE Photonics Journal*, 9(5) doi:10.1109/JPHOT.2017.2752644. Retrieved from www.scopus.com.
27. Buttner, C., Hendrix, H., Oliveira, H., Casey, A., Neve, H., McAuliffe, O., Coffey, A. (2017). Things are getting hairy: Enterobacteria bacteriophage vB_PcaM_CBB. *Frontiers in Microbiology*, 8(JAN) doi:10.3389/fmicb.2017.00044. Retrieved from www.scopus.com.
28. Buttner, C., McAuliffe, O., Ross, R. P., Hill, C., O'Mahony, J., & Coffey, A. (2017). Bacteriophages and bacterial plant diseases. *Frontiers in Microbiology*, 8(JAN) doi:10.3389/fmicb.2017.00034. Retrieved from www.scopus.com.
29. Canadas-Quesada, F. J., Fitzgerald, D., Vera-Candeas, P., & Ruiz-Reyes, N. (2017). Harmonic-percussive sound separation using rhythmic information from non-negative matrix factorization in single-channel music recordings. Paper presented at the DAFx 2017 - Proceedings of the 20th International Conference on Digital Audio Effects, 276-282. Retrieved from www.scopus.com.

30. Carlin, A., Perchoux, C., Puggina, A., Aleksovska, K., Buck, C., Burns, C., Boccia, S. (2017). A life course examination of the physical environmental determinants of physical activity behaviour: A "Determinants of diet and physical activity" (DEDIPAC) umbrella systematic literature review. *PLoS ONE*, 12(8) doi:10.1371/journal.pone.0182083. Retrieved from www.scopus.com.
31. Carnerero, M. I., Raiteri, C. M., Villata, M., Acosta-Pulido, J. A., Larionov, V. M., Smith, P. S., Vince, O. (2017). Dissecting the long-term emission behaviour of the BL lac object mrk 421. *Monthly Notices of the Royal Astronomical Society*, 472(4), 3789-3804. doi:10.1093/mnras/stx2185. Retrieved from www.scopus.com.
32. Carracedo-Taboada, M., O'Sullivan, K., McAuliffe, M. A. P., Vucen, S., & O'Sullivan, C. (2017). The influence of process parameters on the physical characteristics of ceramic microneedles, evaluated using a factorial design. *Procedia Manufacturing*, 13, 153-160. doi:10.1016/j.promfg.2017.09.025. Retrieved from www.scopus.com.
33. Casey, E., Fitzgerald, E., & Lucey, B. (2017). Towards understanding clinical campylobacter infection and its transmission: Time for a different approach? *British Journal of Biomedical Science*, 74(2), 53-64. doi:10.1080/09674845.2017.1291205. Retrieved from www.scopus.com.
34. Claesson, M. J., Clooney, A. G., & O'Toole, P. W. (2017). A clinician's guide to microbiome analysis. *Nature Reviews Gastroenterology and Hepatology*, 14(10), 585-595. doi:10.1038/nrgastro.2017.97. Retrieved from www.scopus.com.
35. Coakley, D., & Suilleabhain, G. O. (2017). "Press start": Training the next generation of serious games developers. Paper presented at the Proceedings of the 11th European Conference on Games Based Learning, ECGBL 2017, 95-102. Retrieved from www.scopus.com.
36. Collins, P. J., McMenemy, M. J., McClintock, J., Lagan-Tregaskis, P., McCabe, L., Doherty, S., McKillen, J. (2017). Molecular detection of kobuviruses in livestock in Northern Ireland and the Republic of Ireland. *Archives of Virology*, 162(5), 1275-1279. doi:10.1007/s00705-017-3223-6. Retrieved from www.scopus.com.
37. Condello, G., Puggina, A., Aleksovska, K., Buck, C., Burns, C., Cardon, G., Boccia, S. (2017). Behavioral determinants of physical activity across the life course: A "DEterminants of Diet and physical ACTivity" (DEDIPAC) umbrella systematic literature review. *International Journal of Behavioural Nutrition and Physical Activity*, 14(1) doi:10.1186/s12966-017-0510-2. Retrieved from www.scopus.com.
38. Coppinger, T. (2017). Sport, health and physical activity in children. *Sport and health: Exploring the current state of play* (pp. 36-68) doi:10.4324/9781315266459. Retrieved from www.scopus.com.
39. Corbalán, P., Marfievici, R., Cionca, V., O'Shea, D., & Pesch, D. (2017). Into the SMOG: The stepping stone to centralized WSN control. Paper presented at the Proceedings - 2016 IEEE 13th International Conference on Mobile Ad Hoc and Sensor Systems, MASS 2016, 118-126. doi:10.1109/MASS.2016.025. Retrieved from www.scopus.com.
40. Cortis, C., Puggina, A., Pesce, C., Aleksovska, K., Buck, C., Burns, C., Boccia, S. (2017). Psychological determinants of physical activity across the life course: A "DEterminants of Diet and physical ACTivity" (DEDIPAC) umbrella systematic literature review. *PLoS ONE*, 12(8) doi:10.1371/journal.pone.0182709. Retrieved from www.scopus.com.
41. Cowhey, E., Kearns, N., O'Donovan, M., & Connell, J. (2017). Utility experience of commissioning controlled switching devices on transmission shunt reactors. Paper presented at the 2017 52nd International Universities Power Engineering Conference, UPEC 2017, 2017-January 1-6. doi:10.1109/UPEC.2017.8231984. Retrieved from www.scopus.com.
42. Cowhey, E., O'Donovan, M., & Connell, J. (2017). Performance and analysis of controlled switching on a transmission system. Paper presented at the Proceedings - 2016 51st International Universities Power Engineering Conference, UPEC 2016, 2017-January 1-6. doi:10.1109/UPEC.2016.8114073. Retrieved from www.scopus.com.
43. Cross, C., Linehan, M., & Murphy, C. (2017). The unintended consequences of role-modelling behaviour in female career progression. *Personnel Review*, 46(1), 86-99. doi:10.1108/PR-06-2015-0177. Retrieved from www.scopus.com.
44. Crowley, A., Farren, M., & Súilleabháin, G. Ó. (2017). Strategy simulation games: The student perspective and an investigation of employability competencies gained through the use of strategy simulations in higher education doi:10.1007/978-3-319-49625-2_25. Retrieved from www.scopus.com.

45. Crowley, D., O'Callaghan, Y., McCarthy, A. L., Connolly, A., Fitzgerald, R. J., & O'Brien, N. M. (2017). Aqueous and enzyme-extracted phenolic compounds from brewers' spent grain (BSG): Assessment of their antioxidant potential. *Journal of Food Biochemistry*, 41(3) doi:10.1111/jfbc.12370. Retrieved from www.scopus.com.
46. Crowley, M. E., Hegarty, A., McAuliffe, M. A. P., O'Mahony, G. E., Kiernan, L., Hayes, K., & Crean, A. M. (2017). Near-infrared monitoring of roller compacted ribbon density: Investigating sources of variation contributing to noisy spectral data. *European Journal of Pharmaceutical Sciences*, 102, 103-114. doi:10.1016/j.ejps.2017.02.024. Retrieved from www.scopus.com.
47. Cudmore, S., Doolan, A., Lacey, S., & Shanahan, F. (2017). A randomised, double-blind, placebo-controlled clinical study: The effects of a synbiotic, lepicol, in adults with chronic, functional constipation. *International Journal of Food Sciences and Nutrition*, 68(3), 366-377. doi:10.1080/09637486.2016.1244661. Retrieved from www.scopus.com.
48. Culligan, E. P., & Sleator, R. D. (2017). Antibiotics v2.0: Computational and synthetic biology approaches to combat antibiotic resistance. *Future Microbiology*, 12(4), 267-269. doi:10.2217/fmb-2017-0005. Retrieved from www.scopus.com.
49. Davies, R. W., Toomey, C., McCormack, W., O'Neill, C., Hughes, K., & Jakeman, P. (2017). Seasonal changes in body composition of inter-county gaelic athletic association hurlers. *Journal of Sports Sciences*, 35(24), 2427-2432. doi:10.1080/02640414.2016.1272709. Retrieved from www.scopus.com.
50. Davis, K., & Hayes, J. G. (2017). Analysis of electric vehicle powertrain simulators for fuel consumption calculations. Paper presented at the 2016 International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference, ESARS-ITEC 2016, doi:10.1109/ESARS-ITEC.2016.7841414. Retrieved from www.scopus.com.
51. de Kruijf, M., Coffey, A., & O'Mahony, J. (2017). The investigation of the truncated mbtA gene within the mycobactin cluster of mycobacterium avium subspecies paratuberculosis as a novel diagnostic marker for real-time PCR. *Journal of Microbiological Methods*, 136, 40-48. doi:10.1016/j.mimet.2017.03.005. Retrieved from www.scopus.com.
52. de Kruijf, M., Govender, R., Yearsley, D., Coffey, A., & O'Mahony, J. (2017). A comparative study evaluating the efficacy of IS_MAP04 with IS900 and IS_MAP02 as a new diagnostic target for the detection of mycobacterium avium subspecies paratuberculosis from bovine faeces. *Veterinary Microbiology*, 204, 104-109. doi:10.1016/j.vetmic.2017.04.020. Retrieved from www.scopus.com.
53. de Kruijf, M., Lesniak, O. N., Yearsley, D., Ramovic, E., Coffey, A., & O'Mahony, J. (2017). Low genetic diversity of bovine mycobacterium avium subspecies paratuberculosis isolates detected by MIRU-VNTR genotyping. *Veterinary Microbiology*, 203, 280-285. doi:10.1016/j.vetmic.2017.03.029. Retrieved from www.scopus.com.
54. Deng, S., Lewis, L., & Morrison, A. P. (2017). A regulated high negative voltage generator for single-photon avalanche photodiodes. Paper presented at the Proceedings - 2017 1st New Generation of CAS, NGCAS 2017, 161-164. doi:10.1109/NGCAS.2017.24. Retrieved from www.scopus.com.
55. Deng, S., McAuliffe, M. A. P., Salaj-Kosla, U., Wolfe, R., Lewis, L., & Huyet, G. (2017). A pH sensing system using fluorescence-based fibre optical sensor capable of small volume sample measurement. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, , 10110 doi:10.1117/12.2250163. Retrieved from www.scopus.com.
56. Devarapu, G. C. R., & Foteinopoulou, S. (2017). Broadband near-unidirectional absorption enabled by phonon-polariton resonances in SiC micropillar arrays. *Physical Review Applied*, 7(3) doi:10.1103/PhysRevApplied.7.034001. Retrieved from www.scopus.com.
57. Dhanapala, I. S. A., Marfievici, R., Palipana, S., Agrawal, P., & Pesch, D. (2017). Modeling WiFi traffic for white space prediction in wireless sensor networks. Paper presented at the Proceedings - Conference on Local Computer Networks, LCN, , 2017-October 551-554. doi:10.1109/LCN.2017.30. Retrieved from www.scopus.com.
58. Di Rocco, M., Moloney, M., O'Beirne, T., Earley, S., Berendsen, B., Furey, A., & Danaher, M. (2017). Development and validation of a quantitative confirmatory method for 30 β -lactam antibiotics in bovine muscle using liquid chromatography coupled to tandem mass spectrometry. *Journal of Chromatography A*, 1500, 121-135. doi:10.1016/j.chroma.2017.04.022. Retrieved from www.scopus.com.

59. Dunne, M., & Wright, A. (2017). Irish local and artisan foods: Multiples make space! *Cogent Business and Management*, 4(1) doi:10.1080/23311975.2017.1324242. Retrieved from www.scopus.com.
60. Duque, R., Arbelaez, A., & Díaz, J. F. (2017). Off-line and on-line scheduling of SAT instances with time processing constraints doi:10.1007/978-3-319-66562-7_38. Retrieved from www.scopus.com.
61. Endersen, L., Buttmer, C., Nevin, E., Coffey, A., Neve, H., Oliveira, H., O'Mahony, J. (2017). Investigating the biocontrol and anti-biofilm potential of a three phage cocktail against *Cronobacter sakazakii* in different brands of infant formula. *International Journal of Food Microbiology*, 253, 1-11. doi:10.1016/j.ijfoodmicro.2017.04.009. Retrieved from www.scopus.com.
62. Engel, F., Keary, A., Berwind, K., Bornschlegl, M. X., & Hemmje, M. (2017). The role of reproducibility in affective computing. Paper presented at the Proceedings - 2017 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2017, 2017-January 2008-2014. doi:10.1109/BIBM.2017.8217969. Retrieved from www.scopus.com.
63. Escalada, J., Ortin, F., & Scully, T. (2017). An efficient platform for the automatic extraction of patterns in native code. *Scientific Programming*, 2017 doi:10.1155/2017/3273891. Retrieved from www.scopus.com.
64. Fano Yela, D., Ewert, S., Fitzgerald, D., & Sandler, M. (2017). Interference reduction in music recordings combining kernel additive modelling and non-negative matrix factorization. Paper presented at the ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, 51-55. doi:10.1109/ICASSP.2017.7952116. Retrieved from www.scopus.com.
65. Farooq, M. O., & Kunz, T. (2017). Bandwidth and contention-aware routing and gateway selection for low-power and lossy networks. Paper presented at the 2017 International Conference on Selected Topics in Mobile and Wireless Networking, MoWNet 2017, doi:10.1109/MoWNet.2017.8045945. Retrieved from www.scopus.com.
66. Ferreira, J., & Pantidi, N. (2017). Going digital: Integrating digital technologies in local community initiatives. Digital participation through social living labs: Valuing local knowledge, enhancing engagement (pp. 55-76) doi:10.1016/B978-0-08-102059-3.00004-6. Retrieved from www.scopus.com.
67. Fitzgerald, D., Rafii, Z., & Liutkus, A. (2017). User assisted separation of repeating patterns in time and frequency using magnitude projections. Paper presented at the ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, 396-400. doi:10.1109/ICASSP.2017.7952185. Retrieved from www.scopus.com.
68. Foteinopoulou, S., & Devarapu, G. C. R. (2017). Perfectly asymmetric reflection enables unidirectional emission in a phonon-polariton (reststrahlen-band) material platform. Paper presented at the International Conference on Transparent Optical Networks, doi:10.1109/ICTON.2017.8024743. Retrieved from www.scopus.com.
69. Fox, E. M., Casey, A., Jordan, K., Coffey, A., Gahan, C. G. M., & McAuliffe, O. (2017). Whole genome sequence analysis; an improved technology that identifies underlying genotypic differences between closely related *Listeria monocytogenes* strains. *Innovative Food Science and Emerging Technologies*, 44, 89-96. doi:10.1016/j.ifset.2017.07.010. Retrieved from www.scopus.com.
70. Gaafar, M. A., Jalas, D., O'Faolain, L., Li, J., Krauss, T. F., Petrov, A. Y., & Eich, M. (2017). Transmission and reflection from a free carrier front in a silicon slow light waveguide. Paper presented at the Asia Communications and Photonics Conference, ACP, 2017-August doi:10.1364/ACPC.2017.S4D.2. Retrieved from www.scopus.com.
71. Gaafar, M. A., Jalas, D., O'Faolain, L., Li, J., Krauss, T. F., Petrov, A. Y., & Eich, M. (2017). Transmission and reflection from a free carrier front in a silicon slow light waveguide. Paper presented at the Optics InfoBase Conference Papers, Part F83-ACPC 2017 doi:10.1364/ACPC.2017.S4D.2. Retrieved from www.scopus.com.
72. Gade, P., Galvin, M., O'Sullivan, J., Walsh, P., & Murphy, Ó. (2017). Reactions to imagery generated using computational aesthetic measures. *Leonardo*, 50(5), 453-460. doi:10.1162/LEON_a_01348. Retrieved from www.scopus.com.
73. Glover, D., Schroeder, J. W., Faull, J., Baberwal, S., Baza, C., Cao, J., Zhao, W. (2017). The future of the ISS: Lifespan extension of the international space station after 2024. Paper presented at the Proceedings of the International Astronautical Congress, IAC, 14 9263-9273. Retrieved from www.scopus.com.

74. Gonec, T., Malík, I., Csöllei, J., Jampílek, J., Stolaríková, J., Solovic, I., Coffey, A. (2017). Synthesis and in vitro antimycobacterial activity of novel narylpiiperazines containing an ethane-1,2-diyl connecting chain. *Molecules*, 22(12) doi:10.3390/molecules22122100. Retrieved from www.scopus.com.
75. Goulding, D., Fitzpatrick, D., O'Connor, R., Browne, J. D., & Power, N. M. (2017). Supplying bio-compressed natural gas to the transport industry in Ireland: Is the current regulatory framework facilitating or hindering development? *Energy*, 136, 80-89. doi:10.1016/j.energy.2016.08.037. Retrieved from www.scopus.com.
76. Graham, K., Rea, R., Simpson, P., & Stack, H. (2017). Development of a rapid, one-step screening method for the isolation of presumptive proteolytic enterococci. *Journal of Microbiological Methods*, 132, 99-105. doi:10.1016/j.mimet.2016.11.016. Retrieved from www.scopus.com.
77. Griffin, C. T., Sheehan, A., Danaher, M., & Furey, A. (2017). Pyrrolizidine alkaloids in food: Analytical, toxicological and health considerations. *Analysis of food toxins and toxicants* (pp. 267-318) doi:10.1002/9781118992685.ch10. Retrieved from www.scopus.com.
78. Guibene, W., Nowack, J., Chalikias, N., Fitzgibbon, K., Kelly, M., & Prendergast, D. (2017). Evaluation of LPWAN technologies for smart cities: River monitoring usecase. Paper presented at the 2017 IEEE Wireless Communications and Networking Conference Workshops, WCNCW 2017, doi:10.1109/WCNCW.2017.7919089. Retrieved from www.scopus.com.
79. Hand, B., & Cashman, A. (2017). Conceptual design of a large-scale floating offshore vertical axis wind turbine. Paper presented at the Energy Procedia, 142 83-88. doi:10.1016/j.egypro.2017.12.014. Retrieved from www.scopus.com.
80. Hand, B., Cashman, A., & Kelly, G. (2017). A low-order model for offshore floating vertical axis wind turbine aerodynamics. *IEEE Transactions on Industry Applications*, 53(1), 512-520. doi:10.1109/ TIA.2016.2606088. Retrieved from www.scopus.com.
81. Hand, B., Kelly, G., & Cashman, A. (2017). Numerical simulation of a vertical axis wind turbine airfoil experiencing dynamic stall at high reynolds numbers. *Computers and Fluids*, 149, 12-30. doi:10.1016/ j.compfluid.2017.02.021. Retrieved from www.scopus.com.
82. Hathaway, H., Ajuebor, J., Stephens, L., Coffey, A., Potter, U., Sutton, J. M., & Jenkins, A. T. A. (2017). Thermally triggered release of the bacteriophage endolysin CHAPKand the bacteriocin lysostaphin for the control of methicillin resistant staphylococcus aureus (MRSA). *Journal of Controlled Release*, 245, 108-115. doi:10.1016/j.jconrel.2016.11.030. Retrieved from www.scopus.com.
83. Hayes, K., Cotter, L., Barry, L., & O'Halloran, F. (2017). Emergence of the L phenotype in group B streptococci in the south of Ireland. *Epidemiology and Infection*, 145(16), 3535-3542. doi:10.1017/S0950268817002461. Retrieved from www.scopus.com.
84. Hayes, S., Hogan, T., & Delaney, K. (2017). Exploring the materials of TUIs: A multi-method approach. Paper presented at the DIS 2017 Companion - Proceedings of the 2017 ACM Conference on Designing Interactive Systems, 55-60. doi:10.1145/3064857.3079119. Retrieved from www.scopus.com.
85. Hayes, S., O'Keefe, M., & Hogan, T. (2017). Piecing together the past: Constructing stories with jigsaw puzzles in museums. Paper presented at the DIS 2017 Companion - Proceedings of the 2017 ACM Conference on Designing Interactive Systems, 79-83. doi:10.1145/3064857.3079123. Retrieved from www.scopus.com.
86. Healy, M., & Walsh, P. (2017). Detecting demeanor for healthcare with machine learning. Paper presented at the Proceedings - 2017 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2017, 2017-January 2015-2019. doi:10.1109/BIBM.2017.8217970. Retrieved from www.scopus.com.
87. Hogan, B., Hegarty, S. P., Lewis, L., Vivas, J. R., Ochalski, T., & Huyet, G. (2017). Sub-wavelength gratings for mid-infrared wavelength range around 10 microns. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, 10113 doi:10.1117/12.2251937. Retrieved from www.scopus.com.
88. Hogan, T., Gourlet, P., Hinrichs, U., Hornecker, E., Jansen, Y., Nissen, B., & Huron, S. (2017). Pedagogy & physicalization: Designing learning activities around physical data representations. Paper presented at the DIS 2017 Companion - Proceedings of the 2017 ACM Conference on Designing Interactive Systems, 345-347. doi:10.1145/3064857.3064859. Retrieved from www.scopus.com.

89. Hogan, T., Hinrichs, U., & Hornecker, E. (2017). The visual and beyond: Characterizing experiences with auditory, haptic and visual data representations. Paper presented at the DIS 2017 - Proceedings of the 2017 ACM Conference on Designing Interactive Systems, 797-809. doi:10.1145/3064663.3064702. Retrieved from www.scopus.com.
90. Hogan, T., & Hornecker, E. (2017). Towards a design space for multisensory data representation. *Interacting with Computers*, 29(2), 147-167. doi:10.1093/iwc/iww015. Retrieved from www.scopus.com.
91. Huron, S., Gourlet, P., Hinrichs, U., Hogan, T., & Jansen, Y. (2017). Let's get physical: Promoting data physicalization in workshop formats. Paper presented at the DIS 2017 - Proceedings of the 2017 ACM Conference on Designing Interactive Systems, 1409-1422. doi:10.1145/3064663.3064798. Retrieved from www.scopus.com.
92. Jaeschke, L., Steinbrecher, A., Luzak, A., Puggina, A., Aleksovska, K., Buck, C., Volkert, D. (2017). Socio-cultural determinants of physical activity across the life course: A 'determinants of diet and physical activity' (DEDIPAC) umbrella systematic literature review. *International Journal of Behavioural Nutrition and Physical Activity*, 14(1) doi:10.1186/s12966-017-0627-3. Retrieved from www.scopus.com.
93. Jones, D. J., O'Leary, E. M., & O'Sullivan, T. P. (2017). Synthesis of symmetrically and unsymmetrically substituted S,S-dialkyl phosphonodithioates. *Tetrahedron Letters*, 58(44), 4212-4214. doi:10.1016/j.tetlet.2017.09.065. Retrieved from www.scopus.com.
94. Jones, L., Kinsella, B., Forde, K., Furey, A., & Regan, F. (2017). A robust analytical method for the determination of pesticide residues in wastewater. *Analytical Methods*, 9(28), 4167-4174. doi:10.1039/c7ay00704c. Retrieved from www.scopus.com.
95. Jones, L., Sullivan, T., Kinsella, B., Furey, A., & Regan, F. (2017). Occurrence of selected metals in wastewater effluent and surface water in Ireland. *Analytical Letters*, 50(4), 724-737. doi:10.1080/00032719.2016.1194854. Retrieved from www.scopus.com.
96. Judge, M. M., Kelleher, M. M., Kearney, J. F., Sleator, R. D., & Berry, D. P. (2017). Ultra-low-density genotype panels for breed assignment of angus and hereford cattle. *Animal*, 11(6), 938-947. doi:10.1017/S1751731116002457. Retrieved from www.scopus.com.
97. Kavanagh, N., Murray, B., Goulding, D., Morrissey, P. E., Sheehan, R., Corbett, B., & Gunning, F. C. G. (2017). Enabling photonic technologies at 2 μm . Paper presented at the International Conference on Transparent Optical Networks, doi:10.1109/ICTON.2017.8024868. Retrieved from www.scopus.com.
98. Kelleher, B., Goulding, D., Tykalewicz, B., Hegarty, S. P., Dubinkin, I., Federov, N., Viktorov, E. A. (2017). Excited state spectral blowup induced by carrier dynamics in the ground state of a quantum dot laser. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, 10098 doi:10.1117/12.2252476. Retrieved from www.scopus.com.
99. Kelleher, B., Tykalewicz, B., Goulding, D., Fedorov, N., Dubinkin, I., Erneux, T., & Viktorov, E. A. (2017). Slow passage to bursting effects in an optically injected laser. Paper presented at the Optics InfoBase Conference Papers, Part F81-EQEC 2017. Retrieved from www.scopus.com.
100. Kelleher, B., Tykalewicz, B., Goulding, D., Fedorov, N., Dubinkin, I., Erneux, T., & Viktorov, E. A. (2017). Two-color bursting oscillations. *Scientific Reports*, 7(1) doi:10.1038/s41598-017-08751-y. Retrieved from www.scopus.com.
101. Kelleher, B., Wishon, M. J., Locquet, A., Goulding, D., Tykalewicz, B., Huyet, G., & Viktorov, E. A. (2017). Delay induced high order locking effects in semiconductor lasers. *Chaos*, 27(11) doi:10.1063/1.4994029. Retrieved from www.scopus.com.
102. Kennedy, A. E., Byrne, N., O'Mahony, J., & Sayers, R. G. (2017). Investigations and implications of associations between mycobacterial purified protein derivative hypersensitivity and MAP-antibody ELISA in Irish dairy cows. *Research in Veterinary Science*, 115, 13-16. doi:10.1016/j.rvsc.2017.01.018. Retrieved from www.scopus.com.
103. Kennedy, A. E., O'Mahony, J., Byrne, N., MacSharry, J., & Sayers, R. G. (2017). Is TB testing associated with increased blood interferon-gamma levels? *Frontiers in Veterinary Science*, 4(OCT) doi:10.3389/fvets.2017.00176. Retrieved from www.scopus.com.
104. Kim, H., Lee, W. -, Farrell, A. C., Morales, J. S. D., Senanayake, P., Prikhodko, S. V., Huffaker, D. L. (2017). Monolithic InGaAs nanowire array lasers on silicon-on-insulator operating at room temperature. *Nano Letters*, 17(6), 3465-3470. doi:10.1021/acs.nanolett.7b00384. Retrieved from www.scopus.com.

105. Komolibus, K., Piwonski, T., Reyner, C. J., Liang, B., Huyet, G., Huffaker, D. L., Houlihan, J. (2017). Absorption dynamics of type-II GaSb/GaAs quantum dots. *Optical Materials Express*, 7(4), 1424. doi:10.1364/OME.7.001424. Retrieved from www.scopus.com.
106. Kotlyar, V. V., Nalimov, A. G., Stafeev, S. S., Hu, C., O'Faolain, L., Kotlyar, M. V., Song, S. (2017). Thin high numerical aperture metalens. *Optics Express* 25(7), 8158-8167. doi:10.1364/OE.25.008158. Retrieved from www.scopus.com.
107. Kotlyar, V. V., Stafeev, S. S., Nalimov, A. G., Kotlyar, M. V., O'Faolain, L., & Kozlova, E. S. (2017). Tight focusing of laser light using a chromium fresnel zone plate. *Optics Express*, 25(17), 19662-19671. doi:10.1364/OE.25.019662. Retrieved from www.scopus.com.
108. Kotlyar, V. V., Stafeev, S. S., Nalimov, A. G., Kotlyar, M. V., O'Faolain, L., & Kozlova, E. S. (2017). Tight focusing of circularly polarized laser light by amplitude zone plate with chromium rings. Paper presented at the Progress in Electromagnetics Research Symposium, 2017-November 2501-2505. doi:10.1109/PIERS-FALL.2017.8293557. Retrieved from www.scopus.com.
109. Kozlova, E. S., Kotlyar, V. V., Nalimov, A. G., Stafeev, S. S., Kotlyar, M. V., & O'Faolain, L. (2017). Dependence of the focal spot parameters on the relief height of the amplitude zone plate. Paper presented at the International Conference on Transparent Optical Networks, doi:10.1109/ICTON.2017.8025096. Retrieved from www.scopus.com.
110. Kozlova, E. S., Kotlyar, V. V., Nalimov, A. G., Stafeev, S. S., Kotlyar, M. V., & O'Faolain, L. (2017). Subwavelength focusing of laser light using zone plates with silver and chromium rings. Paper presented at the Progress in Electromagnetics Research Symposium, 107-111. doi:10.1109/PIERS.2017.8261715. Retrieved from www.scopus.com.
111. Lawlor, B., & Walsh, P. (2017). The weekend warrior: How to build a genomic supercomputer in your spare time using streams and actors in scala. Paper presented at the Proceedings - 13th IEEE International Conference on Ubiquitous Intelligence and Computing, 13th IEEE International Conference on Advanced and Trusted Computing, 16th IEEE International Conference on Scalable Computing and Communications, IEEE International Conference on Cloud and Big Data Computing, IEEE International Conference on Internet of People and IEEE Smart World Congress and Workshops, UIC-ATC-ScalCom-CBDCom-IoP-SmartWorld 2016, 575-580. doi:10.1109/UIC-ATC-ScalCom-CBDCom-IoP-SmartWorld.2016.0098. Retrieved from www.scopus.com.
112. Lawrence, R., McGowan, P., & Daniel, M. (2017). An all-in-one tympanostomy tube insertion device: Results of usability testing in fourteen cadaveric and twelve plastic model ears. *Clinical Otolaryngology*, 42(3), 765-768. doi:10.1111/coa.12689. Retrieved from www.scopus.com.
113. Leahy, K., Gallagher, C., Bruton, K., O'Donovan, P., & O'Sullivan, D. T. J. (2017). Automatically identifying and predicting unplanned wind turbine stoppages using SCADA and alarms system data: Case study and results. Paper presented at the Journal of Physics: Conference Series, 926(1) doi:10.1088/1742-6596/926/1/012011. Retrieved from www.scopus.com.
114. Lesecq, S., Foucault, J., Birot, F., De Chaumont, H., Jackson, C., Correvon, M., Mathewson, A. (2017). INSPEX: Design and integration of a portable/wearable smart spatial exploration system. Paper presented at the Proceedings of the 2017 Design, Automation and Test in Europe, DATE 2017, 746-751. doi:10.23919/DATE.2017.7927089. Retrieved from www.scopus.com.
115. Lesecq, S., Ouvry, L., Correvon, M., Dudnik, G., Barrett, J., McGibney, A., Mathewson, A. (2017). INSPEX: Integrated smart spatial exploration system. Paper presented at the International Conference and Exhibition on Integration Issues of Miniaturized Systems 2017, SSI 2017, 411-414. Retrieved from www.scopus.com.
116. Levis, C., & Hill, M. (2017). A linearised PV maximum power tracking controller for AC network integration analysis. Paper presented at the 2017 28th Irish Signals and Systems Conference, ISSC 2017, doi:10.1109/ISSC.2017.7983631. Retrieved from www.scopus.com.
117. Lynn, T., Rosati, P., Lejeune, A., & Emeakaroha, V. (2017). A preliminary review of enterprise serverless cloud computing (function-as-a-service) platforms. Paper presented at the Proceedings of the International Conference on Cloud Computing Technology and Science, CloudCom, 2017-December 162-169. doi:10.1109/CloudCom.2017.15. Retrieved from www.scopus.com.

118. M Judge, M., Purfield, D. C., Sleator, R. D., & Berry, D. P. (2017). The impact of multi-generational genotype imputation strategies on imputation accuracy and subsequent genomic predictions. *Journal of Animal Science*, 95(4), 1489-1501. doi:10.2527/jas2016.1212. Retrieved from www.scopus.com.
119. Madadlou, A., O'Sullivan, S., & Sheehan, D. (2017). Fast protein liquid chromatography doi:10.1007/978-1-4939-6412-3_19. Retrieved from www.scopus.com.
120. Mangan, S., Ryan, M., Devenney, S., Shovlin, A., McGahan, J., Malone, S., Collins, K. (2017). The relationship between technical performance indicators and running performance in elite gaelic football. *International Journal of Performance Analysis in Sport*, 17(5), 706-720. doi:10.1080/24748668. 2017.1387409. Retrieved from www.scopus.com.
121. Márquez-Graña, C., Bryan, K., Vucen, S., & O'Sullivan, C. (2017). Development of a novel single-use microneedle design platform for increased patient compliance. *Procedia Manufacturing*, 13, 1352-1359. doi:10.1016/j.promfg.2017.09.114. Retrieved from www.scopus.com.
122. Márquez-Graña, C., McGowan, P., Cotterell, M., & Ares, E. (2017). Qualitative feasibility research to develop a novel approach for a design of a head support for radiosurgery or stereotactic radiosurgery (SRS). *Procedia Manufacturing*, 13, 1344-1351. doi:10.1016/j.promfg.2017.09.112. Retrieved from www.scopus.com.
123. McGuinness, J. P. L., & Thomas, G. (2017). The constrained optimisation of small linear arrays of heaving point absorbers. part I: The influence of spacing. *International Journal of Marine Energy*, 20, 33-44. doi:10.1016/j.ijome.2017.07.005. Retrieved from www.scopus.com.
124. McKenna, T., Minehane, M., O'Keeffe, B., O'Sullivan, G., & Ruane, K. (2017). Bridge information modelling (BrIM) for a listed viaduct. *Proceedings of the Institution of Civil Engineers: Bridge Engineering*, 170(3), 192-203. doi:10.1680/jbren.16.00007. Retrieved from www.scopus.com.
125. Moloney, M., Fitzgibbon, K., & McKeogh, E. (2017). Systems-of-systems methodology for strategic infrastructure decision making: Ireland as a case study. *Civil Engineering and Environmental Systems*, 34(3-4), 185-205. doi:10.1080/10286608.2018.1447568. Retrieved from www.scopus.com.
126. Morales, J. S. D., Gandan, S., Ren, D., Ochalski, T. J., & Huffaker, D. L. (2017). Optical spectroscopy of p-GaAs nanopillars on si for monolithic integrated light sources. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, 10114 doi:10.1117/12.2252507. Retrieved from www.scopus.com.
127. Mowe, M. A. D., Porojan, C., Abbas, F., Mitrovic, S. M., Lim, R. P., Furey, A., & Yeo, D. C. J. (2017). Corrigendum to "Rising temperatures may increase growth rates and microcystin production in tropical microcystis species" [harmful algae (2015) 50 (88–98)] [S1568988315300275] (10.1016/j.hal. 2015. 10. 011). *Harmful Algae*, 63, 205206. doi:10.1016/j.hal.2016.07.007. Retrieved from www.scopus.com.
128. O'Donovan, D. (2017). Inclusion: Diversity management 2.0. *Managing organizational diversity: Trends and challenges in management and engineering* (pp. 1-28) doi:10.1007/978-3-319-54925-5_1. Retrieved from www.scopus.com.
129. O'Connell, K., Pierlot, C., O'Shea, H., Beaudry, D., Chagnon, M., Assad, M., & Boyd, D. (2017). Host responses to a strontium releasing high boron glass using a rabbit bilateral femoral defect model. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, 105(7), 1818-1827. doi:10.1002/jbm.b.33694. Retrieved from www.scopus.com.
130. O'Connell, K., Werner-Zwanziger, U., O'Shea, H., & Boyd, D. (2017). High borate networks as a platform to modulate temporal release of therapeutic metal ions gallium and strontium. *Biomedical Glasses*, 3(1), 18-29. doi:10.1515/bglass-2017-0002. Retrieved from www.scopus.com.
131. O'Donnell, D., Murphy, J., Desmond, C., Jaksic, V., & Pakrashi, V. (2017). Tuned liquid column damper based reduction of dynamic responses of scaled offshore platforms in different ocean wave basins. Paper presented at the *Journal of Physics: Conference Series*, 842(1) doi:10.1088/1742-6596/842/1/012043. Retrieved from www.scopus.com.
132. O'Donnell, J., Lenihan, C., Quill, N., Buckley, D. N., Pican, E., & Lynch, R. P. (2017). Frequency stabilisation of island electricity grid: A new application for lead-acid batteries. Paper presented at the 10th International Conference on Lead-Acid Batteries, LABAT 2017 - Proceedings, 189-192. Retrieved from www.scopus.com.

133. O'Donovan, A., O'Sullivan, P. D., & Murphy, M. D. (2017). A field study of thermal comfort performance for a slotted louvre ventilation system in a low energy retrofit. *Energy and Buildings*, 135, 312-323. doi:10.1016/j.enbuild.2016.11.049. Retrieved from www.scopus.com.
134. O'Donovan, M., Cowhey, E., & Barry, N. (2017). Application oriented testing of power transmission lines and fault clearing. Paper presented at the Proceedings - 2016 51st International Universities Power Engineering Conference, UPEC 2016, 2017-January 1-6. doi:10.1109/UPEC.2016.8114000. Retrieved from www.scopus.com.
135. Orihuela, L., Roshany-Yamchi, S., García, R. A., & Millán, P. (2017). Distributed set-membership observers for interconnected multi-rate systems. *Automatica*, 85, 221226. doi:10.1016/j.automatica. 2017.07.041. Retrieved from www.scopus.com.
136. O'Sullivan, M., Srbinovski, B., Temko, A., Popovici, E., & McCarthy, H. (2017). V2Hz: Music composition from wind turbine energy using a finite-state machine. Paper presented at the 2017 28th Irish Signals and Systems Conference, ISSC 2017, doi:10.1109/ISSC.2017.7983637. Retrieved from www.scopus.com.
137. O'Sullivan, P. D., & Kolokotroni, M. (2017). A field study of wind dominant single sided ventilation through a narrow slotted architectural louvre system. *Energy and Buildings*, 138, 733-747. doi:10.1016/j.enbuild.2016.11.025. Retrieved from www.scopus.com.
138. Palipana, S., Pietropaoli, B., & Pesch, D. (2017). Recent advances in RF-based passive device-free localisation for indoor applications. *Ad Hoc Networks*, 64, 80-98. doi:10.1016/j.adhoc.2017.06.007. Retrieved from www.scopus.com.
139. Papatryfonos, K., Saladukha, D., Merghem, K., Joshi, S., Lelarge, F., Bouchoule, S., Ramdane, A. (2017). Laterally coupled distributed feedback lasers emitting at 2 μm with quantum dash active region and high-duty-cycle etched semiconductor gratings. *Journal of Applied Physics*, 121(5) doi:10.1063/1.4975036. Retrieved from www.scopus.com.
140. Peyer, L. C., De Kruijf, M., O'Mahony, J., De Colli, L., Danaher, M., Zarnkow, M., Arendt, E. K. (2017). *Lactobacillus brevis* R2 Δ as starter culture to improve biological and technological qualities of barley malt. *European Food Research and Technology*, 243(8), 1363-1374. doi:10.1007/s00217-017-2847-9. Retrieved from www.scopus.com.
141. Pimenov, A., Slepneva, S., Huyet, G., & Vladimirov, A. G. (2017). Dispersive time-delay dynamical systems. *Physical Review Letters*, 118(19) doi:10.1103/PhysRevLett.118.193901 Pittam, J., O'Sullivan, P. D., & O'Sullivan, G. (2017). An archetype based building stock aggregation methodology using a remote survey technique doi:10.1007/978-3319-52076-6_4. Retrieved from www.scopus.com.
142. Pittam, J., & O'Sullivan, P. D. (2017). Improved prediction of deep retrofit strategies for low income housing in Ireland using a more accurate thermal bridging heat loss coefficient. *Energy and Buildings*, 155, 364-377. doi:10.1016/j.enbuild.2017.08.088. Retrieved from www.scopus.com.
143. Reis, S., Pesch, D., Wenning, B. - & Kuhn, M. (2017). Intra-vehicle wireless sensor network communication quality assessment via packet delivery ratio measurements doi:10.1007/978-3-319-52712-3_7. Retrieved from www.scopus.com.
144. Rojas, D., & Barrett, J. (2017). A hardware-software WSN platform for machine and structural monitoring. Paper presented at the 2017 28th Irish Signals and Systems Conference, ISSC 2017, doi:10.1109/ISSC.2017.7983626. Retrieved from www.scopus.com.
145. Rojas, D., & Barrett, J. (2017). A novel 3-D embedded module for displacement measurement in metal structures. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, 7(11), 1765-1773. doi:10.1109/TCPMT.2017.2749278. Retrieved from www.scopus.com.
146. Roshany-Yamchi, S., Witheepanich, K., Escano, J. M., McGibney, A., & Rea, S. (2017). Selective distributed model predictive control for comfort satisfaction in multizone buildings. Paper presented at the 2017 21st International Conference on System Theory, Control and Computing, ICSTCC 2017, 648-653. doi:10.1109/ICSTCC.2017.8107109. Retrieved from www.scopus.com.
147. Rüegg, S. R., McMahan, B. J., Häsler, B., Esposito, R., Nielsen, L. R., Speranza, C. I., Lindberg, A. (2017). A blueprint to evaluate one health. *Frontiers in Public Health*, 5(FEB) doi:10.3389/ fpubh.2017.00020. Retrieved from www.scopus.com.

148. Ryan, P. M., Patterson, E., Kent, R. M., Stack, H., O'Connor, P. M., Murphy, K., Ross, R. P. (2017). Recombinant incretin-secreting microbe improves metabolic dysfunction in high-fat diet fed rodents. *Scientific Reports*, 7(1) doi:10.1038/s41598-017-14010-x. Retrieved from www.scopus.com.
149. Saladukha, D., Ochalski, T. J., Armando, F. M., Clavel, M. B., & Hudait, M. K. (2017). Laser and transistor material on si substrate. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, 10108 doi:10.1117/12.2252383. Retrieved from www.scopus.com.
150. Sargent, C., Gebruers, C., & O'Mahony, J. (2017). A review of the physiological and psychological health and wellbeing of naval service personnel and the modalities used for monitoring. *Military Medical Research*, 4(1) doi:10.1186/s40779-016-0112-3. Retrieved from www.scopus.com.
151. Schulz, S. A., Upham, J., O'Faolain, L., & Boyd, R. W. (2017). Photonic crystal slow light waveguides in a kagome lattice. *Optics Letters*, 42(16), 3243-3246. doi:10.1364/OL.42.003243. Retrieved from www.scopus.com.
152. Scully, T., & Madden, M. G. (2017). Facilitating multi-agent coalition formation in self-interested environments doi:10.1007/978-3-319-53354-4_15. Retrieved from www.scopus.com.
153. Sheridan, I., & Linehan, M. (2017). Structures and processes to underpin enhanced engagement between higher education and enterprise. *The world scientific reference on entrepreneurship* (pp. 57-85) doi:10.1142 /9874. Retrieved from www.scopus.com.
154. Shields, A., Doody, P., & Scully, T. (2017). Application of multiple change point detection methods to large urban telecommunication networks. Paper presented at the 2017 28th Irish Signals and Systems Conference, ISSC 2017, doi:10.1109/ISSC.2017.7983608. Retrieved from www.scopus.com.
155. Shiely, F., Fallon, D., Casey, C., Kerins, D. M., & Eustace, J. A. (2017). Trial of a novel plasma gas disinfection system (radica) to reduce mattress residual bacterial contamination in the acute hospital setting: A preliminary study. *Irish Journal of Medical Science*, 186(1), 17-21. doi:10.1007/s11845-016-1400-3. Retrieved from www.scopus.com.
156. Sleator, R. D. (2017). Molecular detection of foodborne pathogens: A new era in food-safety. *Food safety and consumption: Assessment, practices and current issues* (pp. 1-6). Retrieved from www.scopus.com.
157. Sleator, R. D. (2017). So long, farewell, auf wiedersehen, adieu.. *Bioengineered*, 1. doi:10.1080/21655979.2017.1404788. Retrieved from www.scopus.com.
158. Sleator, R. D., & Smith, N. (2017). Directed panspermia: A 21st century perspective. *Science Progress*, 100(2), 187-193. doi:10.3184/003685017X14901006155062. Retrieved from www.scopus.com.
159. Sleator, R. D., & Smith, N. (2017). TRAPPIST-1: The dawning of the age of aquarius. *Bioengineered*, 8(3), 194-195. doi:10.1080/21655979.2017.1306998. Retrieved from www.scopus.com.
160. Slepneva, S., O'Shaughnessy, B., Kelleher, B., Hegarty, S. P., Vladimirov, A. G., & Huyet, G. (2017). Dynamics of fourier domain mode locked lasers. Paper presented at the 2017 Conference on Lasers and Electro-Optics, CLEO 2017 - Proceedings, , 2017-January 1-2. doi:10.1364/OE.21.019240. Retrieved from www.scopus.com.
161. Smyth, D., McSweeney, S., O'Shea, D., & Cionca, V. (2017). Detecting link fabrication attacks in software-defined networks. Paper presented at the 2017 26th International Conference on Computer Communications and Networks, ICCCN 2017, doi:10.1109/ICCCN.2017.8038435. Retrieved from www.scopus.com.
162. Sola-Oladokun, B., Culligan, E. P., & Sleator, R. D. (2017). Engineered probiotics: Applications and biological containment. *Annual Review of Food Science and Technology*, 8, 353-370. doi:10.1146/annurev-food-030216-030256. Retrieved from www.scopus.com.
163. Stafeev, S. S., Nalimov, A. G., Kotlyar, M. V., Gibson, D., Song, S., Hu, C., Kotlyar, V. V. (2017). Focusing zone plate based on subwavelength grating. Paper presented at the International Conference on Transparent Optical Networks, doi:10.1109/ICTON.2017.8025097. Retrieved from www.scopus.com.
164. Stafeev, S. S., Nalimov, A. G., O'Faolain, L., & Kotlyar, M. V. (2017). Binary diffraction gratings for controlling polarization and phase of laser light [review]. *Computer Optics*, 41(3), 299-314. doi:10.18287/2412-6179-2017-41-3-299-314. Retrieved from www.scopus.com.

165. Talebi, M., Groote, J. F., & Dandelski, C. (2017). Modelling and verification of a cluster-tree formation protocol implementation for the IEEE 802.15.4 TSCH MAC operation mode. Paper presented at the Electronic Proceedings in Theoretical Computer Science, EPTCS, , 244 117-128. doi:10.4204/EPTCS.244.5 Retrieved from www.scopus.com.
166. Tremblay, M. S., Aubert, S., Barnes, J. D., Saunders, T. J., Carson, V., Latimer-Cheung, A. E., Wondergem, R. (2017). Sedentary behaviour research network (SBRN) - terminology consensus project process and outcome. *International Journal of Behavioural Nutrition and Physical Activity*, 14(1) doi:10.1186/s12966-017-0525-8. Retrieved from www.scopus.com.
167. Tsakmakidis, K. L., Shen, L., Schulz, S. A., Zheng, X., Upham, J., Deng, X., Boyd, R. W. (2017). Breaking lorentz reciprocity to overcome the time-bandwidth limit in physics and engineering. *Science*, 356(6344), 1260-1264. doi:10.1126/science.aam6662. Retrieved from www.scopus.com.
168. Villaverde, B. C., Rea, S., & Pesch, D. (2017). QoS-aware routing for industrial wireless sensor networks. *Industrial wireless sensor networks: Applications, protocols, and standards* (pp. 259-282) doi:10.1201/b14072. Retrieved from www.scopus.com.
169. Vladimirov, A. G., Pimenov, A., Slepneva, S., & Huyet, G. (2017). Distributed delay differential model of a multimode semiconductor laser. Paper presented at the Optics InfoBase Conference Papers, Part F82-CLEO_Europe 2017. Retrieved from www.scopus.com.
170. Vučen, S., & O'Sullivan, C. (2017). PLA-based nanoparticulate drug carriers as a percutaneous delivery system for ketoprofen. *Microsized and nanosized carriers for nonsteroidal anti-inflammatory drugs: Formulation challenges and potential benefits* (pp. 161-177) doi:10.1016/B978-0-12-804017-1.00006-6 Retrieved from www.scopus.com.
171. Walker, S. S. W., Lombardi, W., Lesecq, S., & Roshany-Yamchi, S. (2017). Application of distributed model predictive approaches to temperature and CO2Concentration control in buildings. *IFAC-Papers OnLine*, 50(1), 2589-2594. doi:10.1016/j.ifacol.2017.08.107. Retrieved from www.scopus.com
172. Ware, A., & Power, N. (2017). Modelling methane production kinetics of complex poultry slaughterhouse wastes using sigmoidal growth functions. *Renewable Energy*, 104, 50-59. doi:10.1016/j.renene. 2016.11.045. Retrieved from www.scopus.com.
173. Wilberforce, T., Makky, A. A., Baroutaji, A., Sambhi, R., & Olabi, A. G. (2017). Computational fluid dynamic simulation and modelling (CFX) of flow plate in PEM fuel cell using aluminum open cellular foam material. Paper presented at the 2017 IEEE Texas Power and Energy Conference, TPEC 2017, doi:10.1109/TPEC.2017.7868285. Retrieved from www.scopus.com.
174. Williams, J., Finn, K., Melvin, V., Meagher, D., McCarthy, G., & Adamis, D. (2017). The association of serum levels of brain-derived neurotrophic factor with the occurrence of and recovery from delirium in older medical inpatients. *BioMed Research International*, 2017 doi:10.1155/2017/5271395. Retrieved from www.scopus.com.
175. Yela, D. F., Ewert, S., Fitzgerald, D., & Sandler, M. (2017). On the importance of temporal context in proximity kernels: A vocal separation case study. Paper presented at the Proceedings of the AES International Conference, 22-24-June-2017 13-20. Retrieved from www.scopus.com.
176. Zaki, Y., Agüero, R., Förster, A., & Wenning, B. -. (2017). Preface. Retrieved from www.scopus.com.
177. Zhou, B., Bentham, J., Di Cesare, M., Bixby, H., Danaei, G., Cowan, M. J., Eggertsen, R. (2017). Worldwide trends in blood pressure from 1975 to 2015: A pooled analysis of 1479 population-based measurement studies with 19·1 million participants. *The Lancet*, 389(10064), 37-55. doi:10.1016/S0140-6736(16)31919-5. Retrieved from www.scopus.com.

4.3 Innovation and Commercialisation

Commercialisation and Technology Transfer

All commercialisation and technology transfer initiatives are processed through the Industry Liaison Office (ILO). In addition to a number of innovation meetings with companies, ILO staff worked on four EI commercialisation fund applications with CIT staff, two of which were successful. This 50% success rate is the average for CIT on these projects, the national average is circa 27%.

Full Commercialisation Fund	Centre	Value
BOSCo (Battery Optimisation System and Control)	TEC/Nimbus Research Centre	€247,129
STEP4 (Short Term Electricity Price Forecasting)	TEC/Nimbus Research Centre	€204,573
Feasibility - MALDI-tof	Biological Sciences	€14,320

Technology Transfer Strengthening Initiative 2 (TTSI 2)

TTSI Phase 2 concluded in December 2016 with CIT performing very well against targets. CIT was in a consortium led by UCC with Teagasc the third participating partner in the consortium. The table below shows the performance for the entire consortium with CIT highlighted:

Performance 2013 – 2016								
	LOAs	SO		RA<25k	>25k	>500k	IDF	Patents
UCC	78	11		49	151	13	249	57
CIT	19	5		165	30	0	77	9
Teagasc	36	3		11	53	8	65	15
Consortium	133	19		225	234	21	391	81
Targets 2013 – 2016								
Metric	LOAs	SO		RA	RA2	RA3	IDF	Patents
	*	*		<25k	>25k	>500k	*	
UCC	74	14		42	139	0	231	99
CIT	20	4		100	36	0	80	20
Teagasc	18	2		6	63	0	63	24
Consortium	112	20		148	238	0	374	143
Percentages 2013 – 2016								
Metric	LOAs	SO		RA	RA2	RA3	IDF	Patents
RPO				<25k	>25k	>500k		
UCC	105%	79%		117%	118%		108%	58%
CIT	95%	125%		165%	83%		96%	45%
Teagasc	200%	150%		183%	97%		103%	54%
Consortium	119%	95%		152%	98%		105%	57%

In November 2016, UCC hosted the Invention of the Year awards for the Technology Transfer Consortium. The CIT shortlisted nominations for 2015 inventions are listed below (from about 20 nominations annually) and there was one CIT winner from each category.

<p><u>ICT</u></p> <p>Active displays with infrared backlight –Dr Annemarie McCarthy, Dr Stephen Hegarty & Dr Liam Lewis, CAPP</p>	<p><u>ICT</u></p> <p>Auto-correction of the incident light power for fluorescence sensing system - Dr Shijie Deng & Dr Stephen Hegarty, CAPP (Winner)</p>
<p><u>BIO</u></p> <p>MicroPrep Kit – Dr Brigid Lucey & James O’Connor, Biological Sciences</p>	<p><u>BIO</u></p> <p>An engineered <i>Lactococcus lactis</i> vaccine and drug delivery platform – Prof. Roy Sleator, Dr Cormac Gahan (UCC), Dr Eamonn Culligan & Dr Shauna Keane, Biological Sciences (Winner)</p>

The judging panel consisted of Michael Lucey (Purdy Lucey, Intellectual Property Firm – main Sponsor), Helen McBreen (Atlantic Bridge VC firm) & Justin McCarthy (UCC). In addition, CIT Spinout AventaMed received a special recognition award for impact. This was in addition to being named national Spinout of the Year by Knowledge Transfer Ireland earlier in 2016 and also named emerging Cork Company of the Year at the 2017 annual Cork Chamber dinner.

In November 2016, CIT ILO staff attended the Knowledge Transfer Ireland Annual Conference, *Innovation through Collaboration*. This annual event is a national networking event for technology transfer personnel and managers across the universities and IOTs. The theme of the conference was research partnerships with industry with speakers from industry and higher education. Speakers at the conference on 18 November 2016 shared their insights on how collaboration between research and industry drives innovation and improves competitiveness. The conference was attended by over 200 people involved in technology transfer, including members of industry, HEIs and professional service firms. Delegates received copies of the Knowledge Transfer Ireland Practical Guide on Collaborative Research Agreements and the latest Directory of Innovation Supports, Research Centres, and Technology Centres.

Technology Transfer Strengthening Initiative 3 (TTSI 3)

Enterprise Ireland approved the third phase of its TTSI which serves to bolster the capability within the knowledge transfer system in Ireland. This phase of the programme will see €34.5million invested over five years to further embed the transfer of knowledge from within the public research system to industry in Ireland and vice versa. CIT is part of the Bridge Network, Technology Transfer Consortium led by UCC, including Teagasc and new partner IT Tralee. Launched in May 2017, the overall allocation to the consortium is expected to be €5million over 5 years with CIT receiving €525.5k. In addition to delivering on specific commercialisation metrics, the mission of the Bridge Network is to establish an effective link for the consortium’s knowledge transfer expertise to be shared and used in each member institution to ensure continued understanding, application and, where appropriate, creation of excellent practice. The consortium will use this expertise to commercialise innovations for the public good by:

- Encouraging Invention disclosure
- Protecting and managing the academic institution’s intellectual property
- Facilitating technology development and licensing including to new ventures
- Fostering the early stage growth of spinout companies
- Supporting effective relationships with industry

CIT results from KTI Annual Knowledge survey - included in the CIT Compact Report

- **20%** of funding for these projects is funded by industry.
- **173** collaborative research agreements and research contracts (marked increase is due to an increase in the number of small projects undertaken by CIT’s two Technology Gateways).
- CIT undertook **84** consultancy assignments with industry in 2016 and 70 innovation voucher projects, a marked increase over the 2012 baseline.
- Seven Enterprise Ireland Commercialisation Fund projects valued at **€770,000** were approved for CIT researchers in 2016. In addition to those approved in 2015, this represents a marked increase in the level of funding for applied research and a significant element of the Technology Transfer pipeline for 2017 and 2018.

Knowledge Transfer Impact Awards (KTI Awards)

CIT won the Spin-Out Company Impact award at the annual KTI Awards at the Royal Hospital Kilmainham in Dublin for AventaMed. AventaMed was founded by two researchers, Olive O'Driscoll and John Vaughan, from CIT's Medical Engineering Design and Innovation Centre (MEDIC).

The Knowledge Transfer Impact awards recognise and showcase successful knowledge transfer carried out by Industry Liaison/Technology Transfer staff in publicly funded research organisations, for the wider benefit of the economy and society. The awards were presented across seven categories in industry engagement and commercialisation of research, and pay tribute to the businesses and research performing organisations involved in knowledge transfer.

Technology Gateways

The ILO supported TEC and CAPP in the submission of the new Gateway bids for Enterprise Ireland funding, both of which were successful, and which will fund the Gateways from 2018-2022.

Spin Out Policy

Following widespread consultation with relevant stakeholders and the TUI, the ILO submitted the final version of the updated Spin Out Policy to the Finance Committee for consideration on 12 June.

4.4 Incubation and Entrepreneurship

Student Inc.

Over the summer of 2016, 10 student businesses participated on the Student Inc. programme in the Rubicon Centre. An event to mark the completion of the programme was held on 2 September and was attended by CIT staff and stakeholders from the region including Enterprise Ireland and Local Enterprise Offices (LEOs). A number of the students returned to their full-time studies but continued to work on their businesses. One of the students, a Masters student from the Humanities area, secured a place on New Frontiers. 50% of the Student Inc. participants have applied to the *Ireland's Best Young Entrepreneur* competition run by the LEOs nationally.

Names	Course	Year	Company	Description
Myat Min Khaung, Eoin McCarthy	Biomedical Engineering	3	H2O Pure	Portable hand held water purification device
Robert Quinlan	Multimedia	3	e-ISL	eLearning Programme for Irish Sign Language
Donal Lynes	Mechanical Engineering	4	Yellow cow	Multi-mixer for agri. bedding
Ayooluwa Oke	MA by Research in Early Years Education	5	KazooCare	Resource website & App. For parents & childcare practitioners
Eimear Spillane	Culinary Arts	3	Asian Dumplings	Dumplings
Craig Fleming	Multimedia	4	Cork Creative	Digital Media Agency
Emilie-Kate O'Mahony	BBus In Culinary Arts	3	Blue Pumpkin Pie	Luxury desserts
Ruairi Murphy	Biomedical Engineering	3	Climag Pedals	Pedal for Amputee Cyclists
Muideen Ajayi-Taiwo	Biomedical Engineering	3	Mutoyo	Breathing Monitor
Sean Mannix	Bar Management	3	Incognito fly bye	Pest Control Solution

In October 2016, the ILO Office was invited to present Student Inc. at the European Conference on Youth Entrepreneurship. The office was represented at the conference by Enterprise Intern and CIT graduate Stephen Downey, a former Student Inc. participant and a young entrepreneur.

Guide to Student Entrepreneurship in CIT

Having secured funding through the *Transition to CIT project*, the ILO produced a CIT Guide: *Student Entrepreneurship Experience* and an associated micro website www.enterprise.cit.ie. The guide covers information and resources available to students interested in entrepreneurship and starting their own business. The guide forms part of a suite of initiatives in CIT supporting an entrepreneurial ecosystem; encouraging students to be job creators as well as job seekers.

Student Entrepreneurship Conference

In January 2017, CIT hosted an event aimed at Transition Year Students from the South Cork LEO catchment area. Over 400 students attended the event, which was organised by the ILO and the Hincks Centre for Entrepreneurship Excellence. The event was aimed at promoting entrepreneurship to second-level students and many of the young entrepreneurs who inspired the group were Rubicon based entrepreneurs.

Student Entrepreneurship

The All-Ireland Student Enterprise Awards shortlisted projects were announced to great satisfaction in CIT. From 560 entries from all third-level institutions on the island of Ireland, 50 made it through to the next round. All 10 of the CIT entries made

it through to the final shortlisting (20%). The final 10 projects were announced and CIT had 3 of the final 10 (30%). The following colleges were in the final 10:

- Cork Institute of Technology 3
- Queens University Belfast 2
- Trinity College Dublin 1
- National University of Ireland Galway 1
- Institute of Technology Sligo 1
- Athlone Institute of Technology 1
- Galway Mayo Institute of Technology 1

All 3 CIT finalists had been prize winners at the CIT Prize for Innovation Competition held earlier in March.

As overall winners of the 2016 competition, CIT hosted the finals on 8 June 2017 in the Tourism and Hospitality Dining Hall. The event was attended by students and staff from IoTs and universities north and south. While CIT students did not repeat the performance of 2016 where all four top prizes came to CIT, our students did win two of the top four prizes.

Student Inc. got underway in the Rubicon Centre in June 2017 with 10 new students hoping to build and launch their business over the summer period. The students came from a range of disciplines and included students from all years including some 1st year students. They were joined in mid-July by four students from the University of Economics in Danang, Vietnam.

Rubicon also hosted the annual CIT Enterprise Camp run by the School of Business in August.

Global Entrepreneurship

As part of Global Entrepreneurship Week and the Startup Nations Summit (SNS), the ILO and the Hincks Centre for Entrepreneurship Excellence teamed up, with the support of the Head of Faculty of Business and Humanities, to organise an Entrepreneurship Breakfast Briefing on 18 November. The key note speaker was Mr Tom Lersten, Director of the Global Entrepreneurship Program, US Department of State. The event attracted interest from both industry and policy makers with over 70 participants attending.

James Dyson Award for CIT Students

Student Inc. participants 2015 (a multidisciplinary team of business and engineering students) working on the HFLO business idea, were awarded The James Dyson Award in 2016. The award is a national and international design award that celebrates, encourages and inspires the next generation of design engineers. The Award is open to current and recent design engineering students. It is run by the James Dyson Foundation (James Dyson's charitable trust), as part of its mission to get young people excited about design engineering.

New Frontiers

New Frontiers Phase 2 commenced on 22 September 2016 with 14 participants. Over 100 expressions of interest were received for the programme over the summer, a significant increase over the previous year (20%). 55 full applications were received and 36 short listed for interview.

Enterprise Interns

Some metrics from the activities of the two Enterprise Interns at CIT:

- 80 active members in student enterprise society;
- Ongoing class presentations on the CIT Prize for Innovation competition;
- Skills swap event – this is an event to facilitate students with ideas to find other students to fill certain knowledge gaps. This is a great opportunity for students to develop their projects, embark on a collaborative entrepreneurial venture or assist them with their prize for innovation applications.
- In collaboration with the UCC Enterprise Society, these interns organised the *Student Revolution* to run in parallel with Startup Nations Summit events. On 18 November 2016, students had the opportunity to compete for cash prizes while also having the opportunity to stand out from the crowd. This prestigious competition took place at Johnson Controls (formerly Tyco), One Albert Quay, Cork, and only 10 students were selected. Students worked together to solve a problem that Johnson Controls presented. Cash prizes were awarded to the team with the best solution. The groups comprised both CIT and UCC students working together in mixed teams.

Breakfast Links

The ILO, in conjunction with the Rubicon Centre and the Student Enterprise Interns, organised a Breakfast Links Event with the Faculty of Business and Humanities on 25 November 2016. The event was well attended with circa 30 staff from the Faculty meeting the Rubicon team and some of the entrepreneurs based in the Rubicon. The informal breakfast provided an opportunity for the Rubicon clients to look at a range of interactions with the Faculty including work placements, projects, and joint research.

Startup Ireland

ILO and Rubicon staff participated in *The Startup Nations Summit* (SNS) in Cork in November 2016. The SNS gathers a network of startup community leaders and policymakers from around the world to help better enable high impact entrepreneurship, especially through the identification of policy levers and smart public sector driven programmes. Following SNS Toronto in 2012, SNS Kuala Lumpur in 2013, SNS Seoul in 2014, and SNS Monterrey in 2015, Startup Ireland, in partnership with Cork Innovates, hosted its fellow Startup Nations members for the first time in Europe. In addition to attendance at the Summit, the ILO and Rubicon Centre maintained a CIT Innovation & Entrepreneurship Stand at the event.

Industrial Development Authority (IDA)

There were a number of meetings with IDA and potential inward investments for Ireland/Cork, coordinated and hosted by the Industry Liaison Office.

Events Attended 2016/2017
Enterprise Ireland Gateway meetings (Shannon) and information session on current funding call (Dublin)
Space Studies Programme (SSP17) launch (County Hall)
7th University Business Forum (Brussels)
Small Business Innovative Research funding information session (County Hall)
Taste Cork Steering Group Meeting (City Hall)
IDA Security hub meeting (CIT)
Industry Research & Development Group Seminar, Financing & Driving Innovation (Dublin)
EXXCEL Female STEM Entrepreneurship reviews (Rubicon)
3E Entrepreneurship Education conference workshops and Entrepreneurship Showcase (CIT)
University Industry Innovation Network (UIIN) conference (Dublin) (3 days)
ILO and Rubicon participated in hosting a group of Finnish visitors interested in developing EU level cooperation through H2020 or the Interreg Northern Periphery and Arctic programmes (facilitated by Dr John Hobbs and Dr Breda Kenny).
Blackstone unconference – Ireland’s Entrepreneurship Eco System, UCC
Innovation Master Class, UCC
Enterprise Europe Network, Innovation through Collaboration event promoting CIT’s CAPPa and TEC Centres, Kingsley Hotel, Cork
Irish Photonics Integration Centre Annual Workshop, UCC
Launch of Irish Marine Industry Network, Enterprise Ireland, Dublin
ILO staff attended Health Innovation Hub Launch in UCC in September
In November, ILO staff attended the IBEC Regional AGM and Business Briefing
ILO and Rubicon staff participated in EU H2020 InnovShop project kick off meeting (via VC) and Rubicon staff attended the follow up meeting in Laval, France in September.
In September, the Nimbus Research Centre hosted the entire ICT directorate team of Enterprise Ireland including Head of the Directorate Dr Carol Gibbons. ILO staff participated in this meeting.
ILO staff represented CIT in the judging for the IT@cork Company of the Year awards in October and presented the prize for the best Multinational Company (Johnson Controls) at the awards dinner.
ILO staff attended the Irish Research & Development Group (IRDG) Annual Conference ‘Unleashing the Power of Innovation’. CIT’s CAPPa Gateway was among the exhibitors from Ireland’s most innovative companies and networks. Over 40 companies and colleges reached out to delegates to share their capabilities and expertise, paving the way for new collaborations, business opportunities and innovations.

Event Hosted 2016/2017

Met with visiting Assistant Dean from the School of Business, Johnson & Wales University (Rhode Island, USA) to outline the Enterprise and Innovation supports offered throughout the Institute.

In October, the ILO held an internal information seminar for CIT researchers on sources of funding for collaborative research with industry

Rubicon Centre Key Performance Indicators (KPIs) 2016

The Rubicon Centre continued to perform as one of the most successful on campus incubators in the country. The marked difference over the baseline in 2012 is the level of entrepreneurship at undergraduate level and the range of programmes on offer through CIT and the Rubicon Centre to a range of entrepreneur cohorts, including:

- Male/Female STEM
- Unemployed
- Students
- Green Startups
- Senior Entrepreneurs
- High potential startups

Other Rubicon Centre Activities

- In December, Rubicon staff, in conjunction with the Enterprise Interns, completed the Creativity and Innovation Module pitches with first year students. Over 500 students worked on the Business Model Canvas with the Rubicon, during the Semester.
- The Rubicon Centre completed its work on the 4th Year mandatory module titled 'New Venture Planning', supporting module author Ms Lisa Murphy. A number of areas in the module were delivered by the Rubicon team, with a final competition held in the Rubicon at the end of the semester. Over 70 students from the Bachelor of Business (Honours) in Information Systems were involved in this module.
- Following a successful tender application to Enterprise Ireland, Exxcel, the female STEM entrepreneurship programme was approved funding of €90,000 for three new programmes in 2017, 2018, and 2019.
- The Rubicon Centre, in partnership with South East Cork Area Development (SECAD) Company secured funding in September which allowed the former Female Entrepreneurship Programme PINC (now branded CUMAS), developed and delivered by the Rubicon Centre, to be delivered in a number of off-campus locations during 2016 and 2017. 14 Participants commenced the new Programme in Ballingeary, Co. Cork. A new programme also started in Ballincollig with 15 participants, in conjunction with SECAD, Ballincollig Business Association and VMware.
- A former participant in the Student Inc. programme and 4th year student, Vincent Forde, was a winner in the Ireland's Best Young Entrepreneur under 35 regional final in Cork. Vincent was awarded Best Business Idea in the South Cork category for his company Gasgon Medical.
- CIT spinout company and Rubicon client, OrthoXel, won the Cork Chamber of Commerce Emerging Company of the Year 2017 Award.
- One of the Rubicon's long standing clients, MpStor, departed the Centre following acquisition by the original equipment manufacturer.
- On 12 October, 10 Female Participants started the EXXCEL Programme which is focused on developing STEM entrepreneurs and businesses. This programme is part funded by Enterprise Ireland. This six month programme managed by newly recruited Rita Ahern will deliver a number of investor ready opportunities by May 2017.
- In October, the Rubicon Centre celebrated female entrepreneurship and International Women's day with a seminar presented by Naomi Fein of Think Visual, a Rubicon client. Over 50 stakeholders and companies attended this event.
- Five New Frontiers participants from the Rubicon were successful in the Ireland's Best Young Entrepreneur Competition, and progressed forward to the Regional Finals. The competition run by the LEOs has a national fund of over €1million.
- In September, the Rubicon Centre hosted a European Space Agency (ESA) visit and a presentation to Marine Applications Ltd which has secured funding to develop its Fish Quality System. Some of the development work was completed by the Nimbus Research Centre, and the structuring and review of an investor ready business plan was completed by the Rubicon.
- Radisens, one of the alumni companies of Rubicon, secured a further €1million investment from ESA in October.
- Rubicon client Nomos Solutions founded by Tricia Balfe was acquired by a Finnish Trade Partner, XML Dalton. This allowed the combined business units to have sufficient scale to secure more international business. Nomos Solutions was founded following the closure of Motorola.
- The Rubicon board reviewed and approved the draft strategy for the Rubicon, presented by the ILO and Rubicon management at the October board meeting.

New Frontiers

The Enterprise Ireland *New Frontiers Showcase* was held in CIT on 25 April 2017. Over 100 people attended the event from the investment and business community. Alan Hobbs, Enterprise Ireland High Potential Startups Manager was the guest speaker at the event. This annual event showcases the outputs of those that participated on the programme over the previous 6 months. This year's overall award went to a company called Glavloc which has designed and developed a new generation of modular building products. Glavloc worked with CIT's School of Building & Civil Engineering through the Innovation Voucher Scheme while on the New Frontiers Programme.

Rubicon Ten-Year Anniversary

The 10-year anniversary (2006-2016) of the Rubicon Centre was held in the Rubicon/Nimbus courtyard on 11 May 2017. All past clients of the Centre were invited, as well as those that supported the entrepreneurs and the Rubicon team over the past ten years. The evening was an informal one, and Julie Sinnamon, CEO Enterprise Ireland, gave the keynote address. In conjunction with the Hincks Centre for Entrepreneurship Excellence, a review of the companies that were part of the Rubicon over the 10 years were surveyed. The following are some of the key findings:

- 34 High Potential Startups (HPSUs) created in the centre over the period
- 73% Survival Rate
- €68.3m public and private finance raised by Rubicon Companies

Exxcel

Rubicon held the showcase for The *EXXcel* programme for female entrepreneurs on 25 May 2017 in CIT. There were thirteen participants, from six counties across Ireland. All were highly skilled female professionals with new business ideas predominately in the STEM sectors. The company *Habitus* received the award for Best Business Opportunity. The company designed a wearable device which detects improper posture and provides feedback from a physiotherapist which prompts the wearer to correct it.

Vietnam Ireland Bilateral Exchange (VIBE) Project

Two members of the Rubicon Centre team travelled to Vietnam to participate in the selection of the best student projects for the Vietnam Ireland Bilateral Exchange (VIBE) student entrepreneurship competition run by CIT's Vietnamese partner, University of Economics – The University of Danang. The top three selected projects represented by 4 students spent 2 months in the Rubicon Centre over the summer developing their business ideas alongside the 10 CIT student businesses on Student Inc.

4.5 External Engagement and Extended Campus Activities

A range of external events were attended by External Affairs and Extended Campus staff including:
• Local Area Development Partnership Startup of the Year awards
• IGNITE UCC Launch
• Entrepreneurs Anonymous
• Cork Foundation Think Tech Seminar
• Launch of Startup Nations Summit at Cork Airport
• Dell Entrepreneurship Event Dell Mahon
• Ludgate Hub, Skibbereen Launch
• Nimbus Research Centre Industry Breakfast
• Tyndall Launch of ESA Incubator
• Alcon Ireland 25 th Anniversary Commemoration
• OECD High Level Event on the Knowledge Triangle : Enhancing the Contributions of Higher Education and Research Institutions to Innovation
• BNY Mellon 10 th Anniversary Seminar
• Regional Skills Forum Meeting
• FDI Summit: Partnering for Talent and Growth
• IBEC, Cork Chamber and Network Cork events

Internal CIT Supports

Areas in which Faculty staff sought support from CIT Extended Campus:

- Live cases for class groups
- Data Sets for research and analysis
- Practice-experts as guest lecturers
- Work-placement opportunities for students
- Support with the development of customised courses
- Opportunities for short research engagements
- Celebrating and publicising engagement

The Faculty Coordinators developed an updated listing of work placement and coordinators throughout the Institute. A statistic arising from this work has indicated that the Faculty of Business and Humanities saw over 1,300 students undertake placement during the year.

Course Development

A Continuing Professional Development (CPD) course on the 10 credit Level 9 module, RPL: Policy, Practice, Pedagogy was requested by Kilkenny/Carlow ETB for roll out in January 2017. There were 15 people enrolled on the module which ran over semester two. The module was delivered through blended learning.

Customised courses and special purpose awards were developed with:

- Bessborough
- Boston Scientific
- Kilkenny Carlow ETB
- Abtran and CIT IT Services
- Sanmina

Customised course development guidelines were also developed.

Enterprise Engagement Research and Projects

- Daithí Fallon, Dr Rose Leahy and Prof. Irene Sheridan attended the University Industry Innovation Network (UIIN) conference presenting 2 papers and chairing a session.
- Prof. Irene Sheridan worked with EURASHE and several other European Partners on the development of a proposal under the Strategic Partnership initiative.
- Prof. Irene Sheridan was invited by EURASHE to act as an Expert on an EU funded project focusing on 'Professional Higher Education Excellence in Central and South-Eastern Europe'.
- Daithí Fallon, Faculty of Engineering and Science representative in the CIT Extended Campus, presented a paper titled: '*Post Graduate Certificate in Professional Practice - A New Model of Recruitment?*' at IMC33 International Manufacturing Conference UL in early September.

CIT Enterprise Engagement 2016/17

Capventis	Blue Print Labs	Townlands Carnival Festival
Creganna Medical	Design Wizard	Ireland Luxury Travel
MWGroup	Pepsico	Crawford Art Gallery
IMStec Ireland	CPL	Johnson Controls
Philips Lighting	Creganna	Enerco Energy
Glatt GmBh	DePuy	Stryker
Cope Foundation	Pilz	Maura Hunter designs
Macroom-e	Regeneron	OrthoXel
Cork Innovates	Globoserve	Fáilte Ireland
Along Came a Spider	Boston Scientific	Laya Healthcare
Amazon	Ardmore Shipping Company	Eli Lilly
Sanmina	Alcon	Erviva
Pepsico	Seabox	WheyHey Foods
Westgate Foundation	Ulster Bank	Carbon Group
KPC	Atlantic Flight Training Academy	Defence Forces
Cook Pharmica	JRI America Ltd	

The Extended Campus team also contributed to various company visits at the request of the IDA.

Online Activity

The Extended Campus Newsletter was sent twice per semester to an average of 2,250 internal and external recipients.

Learning Clinics

Learning clinics were held in the following organisations:

- Boston Scientific (in conjunction with their Learning and Development unit on further education opportunities for staff)
- Laya Healthcare

Recognition of Prior Learning (RPL)

Following from the publication of the CIT Extended Campus report on *RPL in Higher Education in Ireland* an additional research piece on RPL in the Further Education and Training sector in Ireland was commissioned by Quality and Qualifications Ireland (QQI), with €16,800 funding secured.

Deirdre Goggin from the CIT Extended Campus was co-convenor of the RPL practitioner network (supported by QQI and the National Forum for the Enhancement of Teaching & Learning in Higher Education (NFTL); she also acted as an invited expert on the panel for the re-validation and review of collaborative arrangements between the Defence Forces and IT Carlow in IT Carlow and Curragh Camp in mid-September. Deirdre Goggin was also asked to represent Ireland at the Cedefop Conference

'how to make learning visible' Thessaloniki, Greece in November 2016, and to attend the Irish Reference Group for EU initiatives meeting in Kilkenny in October.

Recognition of Prior Learning; Policy, practice and pedagogy, a new 10 credit module was developed and approved for inclusion within the MA in Teaching and Learning as well as being offered as a single subject certification.

A summary of Semester 1 activity includes:

- 209 RPL cases involving 70 different assessors of which
 - 11 were based on a combination of formal and non-formal learning
 - 35 experiential learning
 - 147 prior formal learning
 - 16 non formal learning
 - 35 advanced entry cases

These were facilitated through lunchtime and evening workshops, one-to-one meetings and online supports.

Semester 2 RPL student interactions saw an additional 37 RPL cases for credit totalling 246 for the year to date.

Other RPL Activity

- 12 learners from Kilkenny/Carlow ETB and IT Carlow completed the RPL policy practice pedagogy module which is a 10 credit level 9 module. The module was delivered through blended learning.
- Deirdre Goggin from CIT Extended Campus was invited to present at the PLA in Zagreb, Croatia by the Croatian Ministry of Education on RPL in higher education and on the practice of CIT from 26 - 27 January.
- Deirdre Goggin attended the VPL Biennale Aarhus Denmark on 26 - 27 April where Deirdre and a colleague from Maynooth University presented a paper on the Irish RPL Practitioner network. Deirdre Goggin and Prof. Irene Sheridan also authored a paper which was published in the VPL Biennale ebook.
- Deirdre Goggin attended QQI round table discussions on 'EU Key Competences for Lifelong Learning Reference Framework' on 16 May.
- Deirdre Goggin presented a workshop 'Recognition of non-formal and informal learning' at the ENQA conference 'exploring the synergies between Quality Assurance and Qualifications Recognition' in Dublin, 1 and 2 June.
- Deirdre Goggin attended a Defence Force/ETBI collaborative pilot and VISKA EU Project kick off meeting with ETBI and QQI in June 2017. The focus of the Erasmus+ K3 policy implementation is to make adult learning visible. CIT is the critical friend in the case of the DF pilot and research and evaluation partner in the VISKA project.
- Two papers were presented to the Higher Education Lifelong Learning in Ireland (HELLIN) Conference.
 - Validation of workplace learning in higher education – examples and considerations
 - A study of Recognition of Prior Learning in Higher Education and Further Education in Ireland.
- A presentation was made to the CoderDojo Colloquium in Thomson Reuters, Canary Wharf, London as part of the recognition of prior learning activity in the CoderDojo Erasmus+ project.

Springboard and Springboard+ (2016)

Nine courses funded through Springboard+ 2016 were delivered in CIT. The Lean Sigma course had multiple intakes, and the ICT programmes were fully subscribed.

Springboard+ 2017

CIT received notice of funding for the courses below

Springboard+ 2017		
Course Name	Owner	Income to CIT
Diploma in Biopharmaceutical Manufacturing Operations	Department of Process, Energy and Transport Engineering	€120,000
Certificate in Biopharmaceutical Supply Chain Management	As above	€48,000
Certificate in Cleanroom Manufacturing Practices	As above	€22,000
Certificate in the Science of Biotechnological Manufacturing Operations	As above	€64,000
Certificate in Process Engineering Developments	As above	€70,000
Certificate in ICT Project Management	CAMMS	€29,700
Higher Diploma in Science in Cloud Computing (ICT)	Department of Computer Science	€150,000
Higher Diploma in Science in Data Science & Analytics (ICT)	Department of Mathematics	€152,720

Regional Skills Forum

Extended Campus support for Regional Skills Manager included

- Regional Skills Forum meeting support in Cork and Kerry
- Social media and website support
- The compilation of a contact list from the web of political contacts, public agency contacts, economic development agencies, and business representative and support agencies to drive E-Zines and other targeted communications
- Planning and administration for a 'SW Manufacturing Engineering Skills Group'
- Planning for two mail shots (one for pharma/biopharma and one for manufacturing) in late June and again in mid-late August promoting Springboard courses and work with additional/existing upskilling courses for the manufacturing sector based on survey needs
- Development of a customised template with Springboard details for the two sectors - pharma biopharma/ manufacturing
- Development of a 20-credit programme in Supervisory Management

Other Research Activity

- CIT was invited by QQI to be the research and evaluation partner in a project submitted under the Erasmus+ Call for European policy experimentations in the fields of Education, Training and Youth led by high-level public authorities. This project 'VISKA' was submitted on 13 October with VOX - Nasjonalt Fagorgan for Kompetansepolitikk - Norwegian Agency for Lifelong Learning as the lead partner. This project has received funding of approximately €1.4million. This three year project which is led by Norway involves five other partners from Ireland, Belgium – Flanders, and Iceland.
- Prof. Irene Sheridan was again invited to act as Lead Expert for the EACEA Knowledge Alliance Action.
- The World Scientific Reference on Entrepreneurship which includes a chapter written by Prof. Margaret Linehan and Prof. Irene Sheridan (mainly based on the outputs of the REAP project) has been published: <http://www.worldscientific.com/worldscibooks/10.1142/9874-vol1>
- New *Engagement in Practice* cases have been developed including one illustrating a research interaction with Swanton Nurseries: <http://extendedcampus.cit.ie/contentfiles/casestudies/Swanton%20Nurseries%20Case.pdf>

and with Cork City Council:

<http://extendedcampus.cit.ie/contentfiles/casestudies/Cork%20City%20Council.pdf>

4.6 Alumni Engagement

The CIT Alumni Office develops and encourages relationships with students and alumni through a range of initiatives and communications, to support its education and research ambitions.

Some 2016/2017 highlights include:

- 137 alumni registered with the CIT Alumni Association via the online registration portal (increase of 39 from 2015/2016).
- 37 alumni updated their details through the online 'update your details' portal (increase of seven from 2015/2016).
- The Alumni Office issued 44 Alumni Library Cards for 2016/2017 (increase of 10 from 2015/2016).
- The CIT Alumni Advisory Group met three times throughout 2016/2017 where various alumni engagement initiatives were discussed.
- The 2016 First Destinations Survey saw information gathered from 70% of the 2015 graduate cohort.
- The Student Alumni Ambassador Programme generated 50 hours of volunteering from students for alumni activity across 2016/2017.
- The CIT Joint Mentorship Programme saw 25 pairs of student mentees and alumni mentors engage and share knowledge over a period of six months across 2016/2017. This was an increase in 15 pairs. The programme generated 187 hours of volunteering from alumni and friends of the Institute.
- The 2016 Alumni Conferring Campaign had a positive effect in terms of engaging with alumni at an early stage and generated 32 likes on the Alumni Facebook page during the three days of conferring (average of 11 likes per day).
- The Alumni Office worked with external consultants, staff, alumni and potential supporters of the Institute on behalf of the CIT Foundation Board, to pinpoint the key issues that need to be addressed and the assets which can be built on, to enable progression of the Foundation. This resulted in a Fundraising Strategy for the Institute.

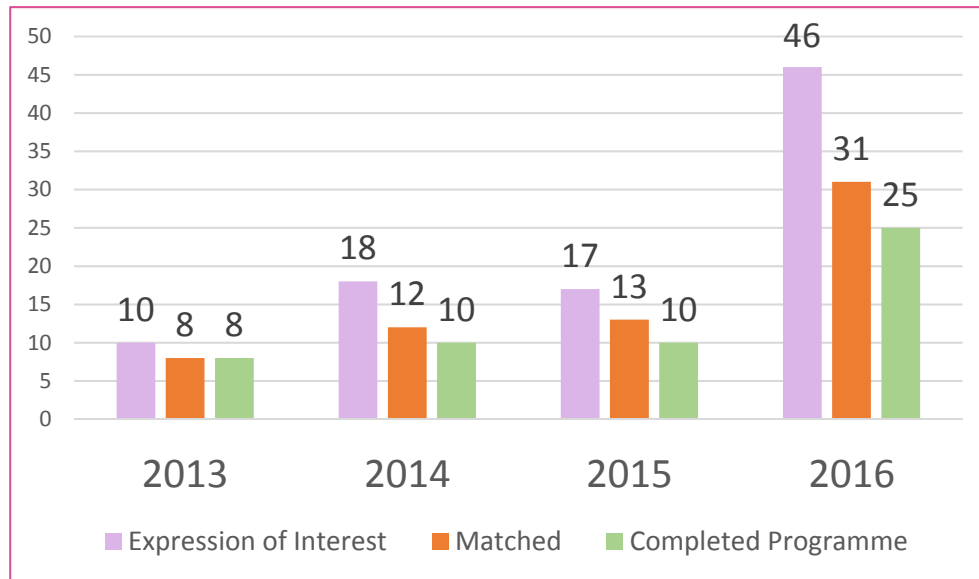
First Destinations Survey (FDS)

The First Destination Survey and Report of the 2015 graduating class – the fourth year of conducting this survey – provided concrete information to inform strategy, decision making and direction for the Institute. The report was based on both survey response data and data from the enrolment record giving a total response rate of 70%. This compared favourably from the response rate of 67% achieved for the First Destinations Survey and Report of the 2014 graduating class.

CIT Joint Mentorship Programme

The CIT Joint Mentorship Programme aims to match current students with professionals (the majority of whom are graduates), from a wide range of sectors to exchange business experience, knowledge, expertise and career advice.

The Programme, now in its fourth year, is a voluntary, extra-curricular activity for students. It is jointly facilitated by the CIT Alumni Office and the CIT Careers Service.



	2013	2014	2015	2016
Expression of interest	10	18	17	46
Matched	8	12	13	31
Completed Programme	8	10	10	25

London Alumni Event

This was the third year of the successful Irish HEIs Alumni Event, hosted by TCD. Twenty-one CIT graduates attended, some from construction-related fields but in general from a broad range of disciplines. Some were attending for the third year in a row.

CIT GradFest

CIT Gradfest – held in February 2017 - is an annual event in which final year students can begin to think about becoming alumni, including getting an opportunity to meet CIT graduates from their own areas of study or who are working in a company of interest, hear about entrepreneurship possibilities, learn about the careers service to alumni, and to learn about the Alumni Office itself.

Other Events

- Presence at Post Grad Fair 2017- Engaged with students, organisations, and alumni. It also provided a marketing opportunity for various upcoming events.

Communications

The Alumni E-News was circulated as follows

- 13,817 alumni in December 2016.

4.7 International & EU Activities

Amalgamated International Office

At the start of the 2016/2017 academic year, all of CIT's international activities were amalgamated into a single unit, incorporating both EU (Erasmus) and non-EU activities. All international staff involved were located together for the first time on the ground floor of the Administration Building. This new arrangement was put in place to enable greater collaboration and knowledge sharing amongst the team, and a single point of access for support to international students.

International Registrations 2016/17

International Orientation took place in the Bishopstown campus on Thursday 8 and Friday 9 September 2016. CIT also welcomed 120 new Erasmus students, and 32 non-EU students, with a series of information sessions, campus tours, and a welcome reception. An excursion for all international students took place on Saturday 10 September.

Non-EU student recruitment levels dropped significantly this year, largely due to the cessation of the Brazilian Science without Borders Programme. The breakdown of the new non-EU student intake was as follows:

Country	Number of New Students
Canada	11 (includes 8 exchange students)
USA	5
India	5
Malaysia	4 (Includes 2 exchange students)
Oman	2
Brazil	2
China	1
Saudi Arabia	1
Japan	1

There were also 7 exchange students from partner colleges in the USA (Washington State University) and Canada (Niagara College; Fanshawe College) as well as 3 scholarship recipients from Vietnam, funded through the Department of Foreign Affairs via the Irish Embassy in Hanoi.

ERASMUS

Erasmus Funding for 2016-2017	
Erasmus + mobility funding for student and staff mobility within programme countries (Europe):	
Study Exchanges	€71,780 for 48 study exchanges
Placements	€44,450 for 35 placements
Staff Mobility	€18,785 for 17 staff teaching/training visits
Organisational Support Funding	€35,000 (based on 100 outgoing mobilities)
Total Funding	€170,105

Erasmus Outgoing Students

During September 2016, students from the departments of Media Communications, Computer Science, Tourism & Hospitality, Sport, Leisure & Childhood Studies, and the CIT CSM travelled to Spain, Germany, UK, Austria, and Sweden to undertake Erasmus exchanges. The Erasmus office organised pre-departure meetings with the students during August.

During January and February 2017, 28 CIT students commenced their Erasmus exchanges and placements abroad. These included students from the departments of Sport, Leisure & Childhood Studies, Marketing & International Business, and Tourism & Hospitality. A further group of students commenced their Erasmus placements in March and April 2017.

Outgoing Erasmus Traineeships (Placements)

37 students travelled on Erasmus traineeships abroad, whilst nine students from the Bachelor of Arts in Early Years Education programme completed their 3 month traineeships at the Vincerola Kindergarten in Cologne.

Erasmus+ International Credit Mobility

Mobility and support funding was received from the HEA totalling €46,860, for student and staff exchanges with the University of Danang. Funding was provided for staff mobility in the first year of the 26 month contract, with student mobility for 2017-2018.

Review of Erasmus Partnerships

Heads of Faculty and School reviewed their current bilateral agreements, with a view to prioritising partnerships which offer opportunities for reciprocal student exchanges, or which are of other strategic value to CIT's internationalisation strategy. This exercise was a first attempt to address the current imbalance between incoming and outgoing exchanges.

Erasmus Information Package

The International Office provided all Heads of School and Department with an information folder containing a list of current bilateral agreements, a folder containing copies of the bilateral agreements in which the department is a participating partner, as well as lists of the department's student and staff mobility exchanges over the past two academic years. This information package, which will be updated once per semester, will provide schools/departments with a readily available reference source for Erasmus activities when preparing for programmatic reviews, and reports, such as the Annual Report.

Erasmus Outgoing Staff Mobility – September 2016 – June 2017

Erasmus staff mobility facilitates staff development, networking opportunities, and knowledge sharing with colleagues at institutions or enterprises abroad. During September and October, the following staff mobilities were funded:

- Ursula O'Donnell and Catherine O'Mahony, Lecturers from the Department of Tourism and Hospitality received Erasmus support funding to attend FICAHT – the France – Ireland Network for Culinary Arts, Hospitality and Tourism – in Biarritz from 12 - 14 of October 2016.
- Gerard O'Donovan, Head of Faculty of Business & Humanities travelled to the Norwegian Academy of Music, Oslo on an Erasmus lecturing visit, and also to attend meetings with CEMPE (the Centre for Excellent Music Performance Education). The Norwegian Academy of Music was a key partner in the former Erasmus Intensive Programme on the subject of creative entrepreneurship, European Creative Futures, which is going from strength to strength, though now running independently of Erasmus funding since the intensive programme action was discontinued under the new Erasmus+ programme.
- Christine Pybus, Lecturer, CIT CCAD was co-funded from Erasmus to attend the ELIA (European League of Institutes of the Arts) annual networking meeting in Florence, Italy. Christine is a board member of ELIA.
- Noel Collins, Lecturer, Department of Sport, Leisure & Childhood Studies, and Maurice Murphy, Senior Lecturer, Department of Management & Enterprise travelled to Hogeschool Utrecht, Holland.
- Gerard O'Donovan, Emmett Coffey, Frank O'Donovan and Dr Breda Kenny travelled to Lahti University of Applied Sciences, Finland, to teach a group of students from five institutions which were partners in the former Erasmus-funded intensive programme: European Creative Futures.
- Barbara Hempel, Student Engagement, carried out an Erasmus+ staff training visit to the University of Lund, Sweden, in February 2017. During the visit, Barbara attended seminars and observed colleagues working in the area of peer assisted learning.
- Dr Katrina Emtage, from CIT CSM, visited the Conservatorio di Santa Cecilia, Rome, Italy, to present lectures on the role of Performer as Composer on 18 and 19 May.
- Dr Pio Fenton, Head of the Department of Marketing and International Business, carried out a teaching visit to the IUT de Grenoble, France, in late March.
- In April, Christine Pybus, CIT CCAD, carried out an Erasmus staff training visit to the Academy of Performing Arts in Prague, Czech Republic. The training was in the area of quality assurance and enhancement using a methodology specifically tailored to Higher Education Arts Institutions, embracing all arts disciplines.
- Pierre Mehdi Hadbi, a technician in the Department of Biological Sciences, carried out a staff training and job shadowing visit to IUT Dijon, France, in late March.
- Carmel Jordan, from the International Office, attended a 2 day course titled "*International marketing strategy: find your market niche and climb to the top*", organised by the European Association for International Education in Amsterdam, Holland, on 27 and 28 March.
- Pamela Hardesty, Lecturer, CIT CCAD, carried out an Erasmus staff training visit to Tartu Art College Department of Textile, Estonia, in March/April.

- Capt. Vivion Gough, NMCI, visited the Escola Superior Nautica Infante D. Henrique (ENIDH), Paço de Arcos, Portugal, to discuss the setting up of a bilateral agreement between the two national maritime colleges.
- Lecturing staff from the Department of Biological Sciences carried out Erasmus placement assessment visits to CIT students at the Universidad Catolica de San Antonio de Murcia (UCAM), Spain, and IUT Dijon, France, during May.
- Prof. Ger Kelly travelled to Hochschule Kiel, Germany, to participate as an external assessor on the institution's European Project Semester.
- Mary Burton-Quinn, from the International Office, attended the Erasmus Staff Week at the University of Valencia, Spain, from 8 to 12 May. The week included some job shadowing in the university's international office.
- Debbie Dawson, and Orla Boyle, of CIT CCAD, visited the International Ceramic Studio in Kecskemet, Hungary, in order to discuss future traineeship opportunities for CIT CCAD students.
- Dr Sheila Walsh, who lectures in French in the School of Business, visited a number of French institutions to set up new and to consolidate existing study exchange and internship opportunities for students on the International Business degree.
- Ruth Vance and Sylvia Dempsey visited the University of Economics, University of Danang, Vietnam, from 12 -16 June, as part of the staff mobility exchange funded through CIT's Erasmus+ ICM project with Danang.

Incoming Erasmus Staff Visits

- CIT welcomed the first incoming staff group from the University of Economics, University of Danang, Vietnam, under the Erasmus+ project which is being coordinated by Dr Pio Fenton. The four senior management and academic staff, Dr Vo Thi Thuy Anh, Vice Rector, Dr Thi Lan Huong Pham, Dean of Marketing Faculty, Dr Thi Hong Hanh Huynh, Head of Department of Educational Testing and Assurance, and Dr Thi Bich Thu Nguyen, Head of Division of Human Resource Management, attended CIT from 8 to 12 May for a series of workshops, meetings and training sessions. During their visit, the group also availed of the opportunity to attend some workshops at the 3E ECSB Entrepreneurship Education Conference which was being hosted by the School of Business and Hincks Centre for Entrepreneurship Excellence the same week.
- Prof. Andreas Sonning, from the Norwegian Academy of Music in Oslo, CIT's partner in the successful entrepreneurship Intensive Programme "European Creative Futures", participated in the 3E ECSB Entrepreneurship Education Conference.
- Prof. Anton Voight came to CIT CSM as an Erasmus visiting lecturer. Prof. Voight gave piano masterclasses and performed a lecture recital titled Schoenberg-Berg-Webern: Early Piano Pieces on Thursday, 6 April in the School's Stack Theatre.
- Dr Paz Sainz Madrazo from The University of Bilbao visited the School of Business in late March to present lectures and attend meetings about student and staff mobility.
- Dr Cecile Soldati, of EIGSI University La Rochelle visited CIT's Electrical & Electronic Engineering, and Mechanical, Biomedical & Manufacturing Engineering departments for discussions on future student and staff mobility.
- Ms Sophie Albani and Mrs Kathrin Teichmann from Hochschule Harz University of Applied Sciences, Germany, visited the CIT International Office and the Department of Tourism and Hospitality, to discuss student and staff exchange opportunities.
- Prof. Juergen Strauss, of Hochschule Aalen University of Applied Sciences, visited the School of Business, and International Office to discuss the bilateral agreement.

New Erasmus Agreements

A new bilateral agreement was signed between CIT CCAD and the Ecole Nationale Supérieure Louis Lumière in Paris, France. This agreement is limited to staff exchanges, due to the fact that Louis Lumière teach only photography and therefore semester exchanges of students will not be possible. However, the staff collaboration facilitates a number of joint student projects, such as the joint student portrait exhibition held in Paris on 10 November 2016. This exhibition was mounted in Cork during July 2016, as part of Cork Photo (<http://corkphoto.com/project/five-four-crawford-college/>). Two CIT students received Erasmus support funding towards their costs of attending the exhibition in Paris.

Other agreements were signed with:

- Hochschule Karlsruhe
- Taller de Musics Escola Superior d'Estudis Musicals, Barcelona
- Universidad del Pais Vasco (extension to existing agreement, to facilitate outgoing exchanges for students of the Marketing and International Business degree)

Erasmus Final Report 2016-2017

Following assessment of the Erasmus Final Report for 2015-2016, the HEA wrote to all HEIs outlining its assessment of the narrative section of the final report. CIT was awarded a mark of 75% for the report.

VIBE project with University of Economics – Danang Vietnam

The partnership between CIT and the University of Economics at the University of Danang continued as the four winners of an entrepreneurship competition in Vietnam enjoyed a one month experience on CIT's Student Inc. student entrepreneurship support programme in August 2017. Staff at the Rubicon Centre provided huge support for this initiative.

Scholarships/Contests

- **Victory Scholar Programme** - CIT participated in the Victory Scholar Programme, coordinated by the 'Sport Changes Life' organisation based in both Belfast and the USA, Sport Changes Life aims to raise the aspirations of young people through sporting excellence, vocational and academic achievement, and personal development. The Victory Scholar Programme serves to create a unique opportunity that provides USA-based student athletes a chance to extend their education to postgraduate level in Irish third-level institutions, while enabling them to continue to play the sport they love (basketball) and allows them to give back to the local community where their studies are based. CIT selected two students, Tanner Brooks from St Mary's College of Maryland, and Madison Ward from Merrimack College. Both students enrolled on the MA in International Business.
- **Vietnam IDEAS Scholarships** - The Embassy of Ireland in Vietnam introduced a new scholarship programme under the IDEAS programme, which for the first time was extended to a number of HEIs in Ireland, including CIT. Following a robust selection process, four students whose first choice courses are in CIT were offered places to commence in the academic year 2017/18.
- **Government of Ireland International Scholarships** - In December 2016, a Vietnamese student arrived in CIT as part of the Government of Ireland Scholarship programme. The student, Chi Thang Phan Tan, enrolled in a Masters by Research in Engineering, having gained a Bachelor Degree in Electrical Engineering from the Ho Chi Minh City University of Technology (HCMUT).
- **Vietnamese Ireland Contest** - CIT hosted the winners of "The Ireland Contest 2017", a competition organised by the Embassy of Ireland in Vietnam. The objective of the programme was to promote education in Ireland, in order to attract more Vietnamese to choose Ireland as a higher education destination. More specifically, the Contest focused on how HEIs encourage students' critical thinking and creativity in their teaching programme and how international students can experience Ireland's innovative and creative culture. The winners of the contest travelled to Ireland, and visited CIT from 17 to 20 July 2017.

US Federal Student Aid Training

CIT is currently the only Institute of Technology in Ireland which has been listed as an approved institution for USA Federal Aid. Ms Niamh Lynes, International Office Coordinator, travelled to Atlanta, Georgia at the end of November 2016 to partake in training on the administration of Federal Aid.

Accommodation Issues for International Students

The shortage of accommodation continued to be a problem for international students, particularly Erasmus/Non-EU Exchange students studying in CIT for one semester, as most accommodation leases are for one full year.

Fairs/Outward Visits

- **Malaysia** - A number of CIT staff visited Malaysia to represent the Institute at International Education Fairs, meet with partner institutions, and meet with education agents. Attendees included Prof. Ger Kelly, Head of Department of Mechanical, Biomedical and Manufacturing Engineering, Ms Niamh Lynes, International Office Coordinator, and Mr Mervyn O'Mahony, Marketing Officer. The CIT representatives attended the STAR Education Fair in Kuala Lumpur on 7 and 8 January. During the following week, they visited Methodist College, INTEC, UNITEN, TARUC and USCI.
- **Thailand/Vietnam/India fairs** - A number of CIT personnel attended education fairs and visited partner universities in Thailand, Vietnam, and India during November 2016. Ms Carmel Jordan, International Officer, was supported by Dr Kritchai Withephanich, a Thai researcher based in the Nimbus Research Centre, for the first leg of the trip, and joined by Dr Orla Flynn, Vice President for External Affairs in Vietnam. Dr Pio Fenton, Head of Department of Marketing & International Business, joined colleagues in India for the final leg of the trip. Ms Carmel Jordan, International Officer, and Prof. Ger Kelly, Head, of the Department of Mechanical, Biomedical & Manufacturing Engineering, attended Education in Ireland Fairs from 18-26 February 2017 in Chennai, Bangalore, Mumbai, Pune and Delhi.

- **Dublin International Foundation College (DIFC) University Day** - CIT's International Office attended the DIFC (CIT's Foundation programme partner) University Fair in Dublin on 16 February 2017. This provided an opportunity to present to current international foundation year students in the morning, followed by a recruitment fair in the afternoon.
- **Oman Global Higher Education Exhibition (GHEDEX)** - Mr Alan O'Brien, CIT Digital Marketing Intern in the International Office travelled to Muscat, Oman for the annual GHEDEX education fair during April 2017.
- **Strengthened links with Vietnam** - Dr Orla Flynn, Vice President for External Affairs, Mr Gerard O'Donovan, Head of Faculty of Business and Humanities, and Ms Carmel Jordan, International Officer visited Vietnam in November 2016. The trip included visits to partner Universities, Education Fairs, and guest lectures. The CIT visit coincided with a State visit by President Michael D. Higgins to mark 20 years of diplomatic relations between Ireland and Vietnam. CIT signed Memoranda of Understanding in the presence of President Higgins in Ho Chi Minh City on 11 November with two partner Universities in Vietnam; the University of Economics at the University of Danang, (UE-UD) and Ho Chi Minh University of Technology (HCMUT).
- **New Partnerships in China** - Dr Orla Flynn, Vice President for External Affairs, and Ms Fen Long, International Officer, participated in the China Education Expo (CEE) in Beijing and Shanghai from 22 – 30 October 2016. This year, Ireland held the prestigious role of 'Country of Honour' for the event. CEE attracts a substantial number of top international education providers, as well as a significant volume of student visitors. CIT also signed a number of Memoranda of Understanding with Chinese HEIs during the visit as a result of recent collaborations, including Hainan University and Chongqing Industry Polytechnic College. CIT CCAD also continued its strong links with the Shanghai Academy of Fine Arts (November 2016) as part of a Creative Europe Project (TNCE) and Tsinghua University Academy of Art and Design.
- **Visit to Canadian Institutions** - Dr Noel Murray, Head of Department of Tourism & Hospitality visited Canada during the week 7 to 11 November. The purpose of the visit was to meet with representatives from various colleges under the Colleges Ontario agreement, including Niagara College, St Lawrence College and Fanshawe College. Dr Murray also explored potential relationships with universities in the region and visited both Ryerson and Guelph University. Alan O'Brien, Digital Marketing Intern, visited Ontario, Canada, in a follow-up during early February 2017. He attended Education Pathway Fairs in Fanshawe College and St. Lawrence College, and presented to students in Niagara College and Humber College.
- **Saudi Arabia Market Opportunities Seminar** - Ms Carmel Jordan, International Officer, attended a meeting in Enterprise Ireland on 12 May relating to developing opportunities in a changing Saudi Arabian market. In particular, an education session was held addressing the status of the King Abdullah Scholarship Programme, which was addressed by Dr Abdullah Al Mojel, former Deputy Minister of Scholarship Programmes at the Saudi Ministry of Higher Education & Chairman of Saudi Irish Business Council, and Dr Saud Al Anazi, the Saudi Cultural Attaché in Ireland.
- **Nigeria High School Visits** - Mr Mervyn O'Mahony, Marketing and Communications Officer, visited Nigeria from 13-17 February 2017. This was a follow up visit to September 2016 and included high school visits and education agent meetings in Abuja and Lagos.
- **USA Partners Visit** - Dr Orla Flynn, Vice President for External Affairs, visited the US in April 2017. The purpose of the visit was to visit Institutional partners (School of Visual Arts NY, Long Island University, University of Tampa, Purdue University, Louisville University) and also to follow up with high school counsellors that had visited CIT earlier in 2017. The visit also coincided with the CIT CSM's Jazz Big Band visit to NYC, where they held workshops at Carroll's Studios and held two concerts (Columbia University and the Jazz Standard Jazz Club). A group of approximately 20 students and staff from Purdue University (Biomedical Engineering) made a return visit to CIT on 21 May 2017, and a similar size group from Louisville (Art Therapy) arrived on 22 May 2017. Two Faculties from the School of Visual Arts (Art Therapy) made a return visit to CIT from the 25 to 28 June 2017.
- **NAFSA Conference** - Ms Niamh Lynes, International Office Coordinator, and Ms Carmel Jordan, International Officer, attended the NAFSA Conference in Los Angeles from 29 May – 2 June 2017. Meetings were held with existing and potential Institutional partners from the USA and Canada, including South Puget Sound Community College, Washington State University, High Point University, Niagara College, Humber College, and St Lawrence College.

Incoming Visits/Delegations

- **Indian Education Agents and Media Visit** - CIT welcomed a delegation of Indian Education Agents and media personnel on 13 October. The purpose of the visit was to learn more about Ireland and CIT in order to promote Ireland as a study destination to prospective Indian students. The visitors enjoyed lunch in the training restaurant, and were joined by members of the International Office and senior academic staff from CIT. They also received a campus tour, including a visit to the Rubicon Centre and the Nimbus Research Centre.
- **Vincerola Widdensdorf International Montessori Day Nursery and Preschool** - Pollyanna Hatton, Director of Vincerola Widdensdorf International Montessori Day Nursery and Preschool, and her colleagues, Marion Lentzen and Miren Gonzales, visited the Department of Sport, Leisure and Childhood Studies from 16 -19 October. They met class groups from the Early Childhood Studies to promote their organisation as a host organisation for second year internships, and to share latest practice developments in Germany with lecturing staff. A number of graduates of this CIT degree programme are now full-time employees of the company.
- **Chongqing Industry Polytechnic College** - Four delegates from Chongqing Industry Polytechnic College, China visited the Institute on 9 November 2016. The visit was a follow on from the signing of an MoU with Chongqing in October 2016. The delegates were given a presentation on CIT by Ms N Lynes, International Office Coordinator and met with

Ms Katherine Keane, Head of Department of Architecture, Dr Daniel Cahill, Head of Department of Construction, as well as the President and the Vice President for External Affairs. Possible areas of collaboration include visiting scholars and student exchange.

- **Hong Kong High School Principals** - The Institute participated in the “Ireland Education and Culture Exchange” Tour by hosting a delegation from High School Principals from Hong Kong on 11 November. The Hong Kong Education delegation visited Ireland with a view to building up an understanding and making connections with Irish education stakeholders. This tour was organised by the Irish Chinese Society Galway.
- **Chinese Technical and Vocational Colleges** - CIT hosted a group of senior personnel from a range of Technical and Vocational Colleges in China from 11 to 17 November. The delegation included 14 College Presidents and Vice Presidents from regions including Chongqing, Hangzhou, Lanzhou, Zhengzhou, Shijiazhuang, Zhejiang, Wuhu, Shenzhen, Chengdu and Changzhou. The visit was arranged in conjunction with the China Education Association for International Education (CEAIE). The delegates visited CIT to learn about how the IoT sector operates, and received training on areas including Entrepreneurship, Innovation, Technology Transfer and Commercialisation, Business Incubation, Engagement with Industry, and Student Engagement. The itinerary also included a range of cultural activities.
- **Shanghai Chinese People’s Political Consultative Conference (CPPCC) Delegation** - Six delegates from the Chinese People’s Political Consultative Conference (CPPCC) visited the Institute on Friday 11 November. The delegates were welcomed to CIT by Dr Brendan Murphy, President, Dr Orla Flynn, Vice President for External Affairs, Ms Niamh Lynes, International Office Coordinator, and Mr Mervyn O’Mahony, Marketing Unit.
- **Karine Gautier**, Director of International Relations, EFAP School of Communication Paris, visited CIT’s Media Communications department, to discuss a possible exchange agreement involving students and staff from the Master of Arts in Journalism with new Media.
- **USA High School Counsellors Visit** - A delegation of 15 high school counsellors from the USA visited CIT on 2 March.
- **Brazilian Education Agent Visit** - CIT welcomed 3 Brazilian Education Agents on 29 March, accompanied by Sarah O’Sullivan of Education in Ireland. The purpose of the visit was to learn about current market conditions in Brazil and develop relationships with agents to try to continue the recruitment of Brazilian students outside of the Science without Borders (SWB) scholarship programme.
- **Visit of Indian and Malaysian Ambassadors to CIT** - CIT in partnership with Asia Matters, Cork City Council, Cork County Council, and Cork Chamber hosted a forum as part of the Asia Matters Summit Cork on 18 May. During this event CIT welcomed
 - H.E. Mrs Vijay Thakur Singh, Ambassador of India to Ireland and
 - H.E. Ambassador Anizan Siti Hajjar Adnin, Ambassador of Malaysia to Ireland
 Both Ambassadors met with current CIT students from India and Malaysia.
- **Thai Education Agent & High School Counsellors Visit** - CIT welcomed a delegation of Thai Education Agents and International High School Counsellors on 25 May, accompanied by Terry McParland and Cormac Kavanagh of Education in Ireland. The purpose of the visit was to learn about current market conditions in Thailand, and develop relationships with agents and international high schools to try to develop the recruitment of fee paying Thai students. Visitors included representatives from Study Ireland, St. Andrews International School, Further Education and Bangkok Patana School.

CIT International Ball

The 2nd Annual CIT International Ball was held on 4 May in the Clayton Silver Springs Hotel, organised by the International Office. There were 157 people in attendance, including 23 staff members and 134 CIT students. The event was an opportunity to celebrate our international student body, and acknowledge the support from CIT staff including Admissions, Erasmus Coordinators, Departmental Administration Staff, Accommodation, Societies, and the Students’ Union. The 30 Year Anniversary of the Erasmus programme was also celebrated at the event.

International Architecture Summer School

CIT hosted a group of 20 students from USCI Malaysia for an Architecture Summer School from 2 – 12 June 2017. The school included design workshops and projects, as well as a site visit to Bere Island, west Cork.



NATIONAL MARITIME COLLEGE OF IRELAND

5. Human Resources

Cork Institute of Technology

5.1 Human Resources Report

5.2 Staff Numbers

5.3 Staff Achievements

5.1 Human Resources Report

Staff Numbers

For the academic year 2016/17, the Institute's headcount was 1,381 which equates to 1,023.53 Whole-Time Equivalents (WTE). The largest category of staff were the Academic Staff which accounted for 60% WTE.

All figures shown in this section have been taken from the Public Sector Quarterly Returns as at 31 December 2016.

Retirements

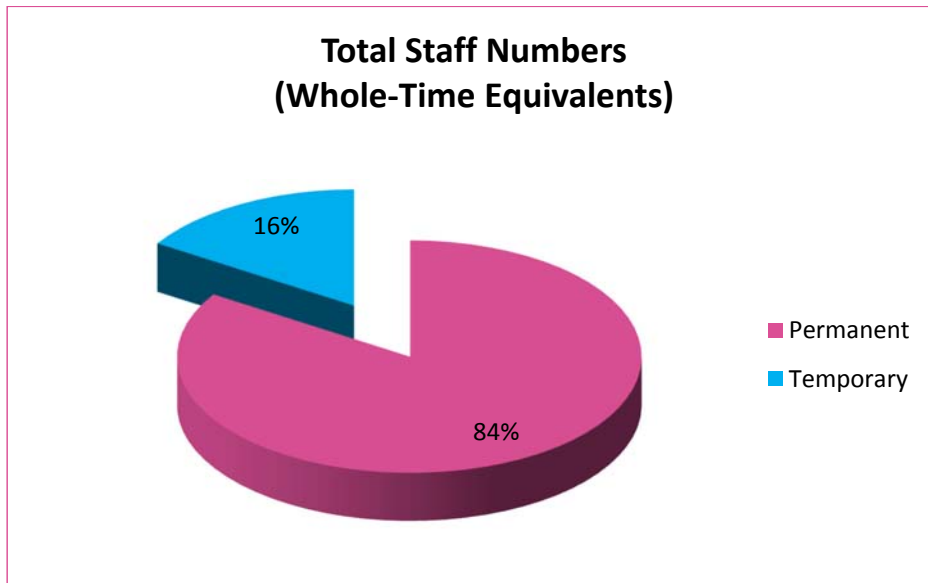
The following staff retired from service during the year:

Mary Atkins, Cleaner, Buildings & Estates
 Mary Carey, Assistant Staff Office, Department of Computer Science
 Noel Collins, Lecturer, Department of Sports, Leisure & Childhood Studies
 Phyllis Corcoran, Cleaner, Buildings & Estates
 Patrick J. Crowley, Technical Officer, Centre of Craft Studies
 Damien Cussen, Lecturer, Department of Applied Social Studies
 Seán Doyle, Lecturer, Centre of Craft Studies
 Capt. Vivion Gough, Head of Department of Maritime Studies, NMCI
 Eileen Greene, Senior Staff Officer, Human Resources
 Denis F. Healy, Pro-Rata Part-Time Lecturer, Department of Architecture
 Bill Hilferty, Caretaker, Building & Estates
 Clive Hotham, Lecturer, NMCI
 Markus Jungmann, Lecturer, CIT CCAD
 Noel Moynihan, Technical Officer, School of Mechanical, Electrical & Process Engineering
 Dr Brendan J. Murphy, President
 Bébhinn Ní Mheara, Lecturer, CIT CSM
 Dr Pascal O'Connor, Senior Lecturer, Department of Electrical & Electronic Engineering
 Don O'Riordan, Lecturer, Centre of Craft Studies
 Dr Felix Raekson, Lecturer, Department of Organisation & Professional Development
 Marian Walsh, Assistant Staff Officer, Student Services
 Eleanor Willis, Lecturer, CIT CSM

5.2 Staff Numbers

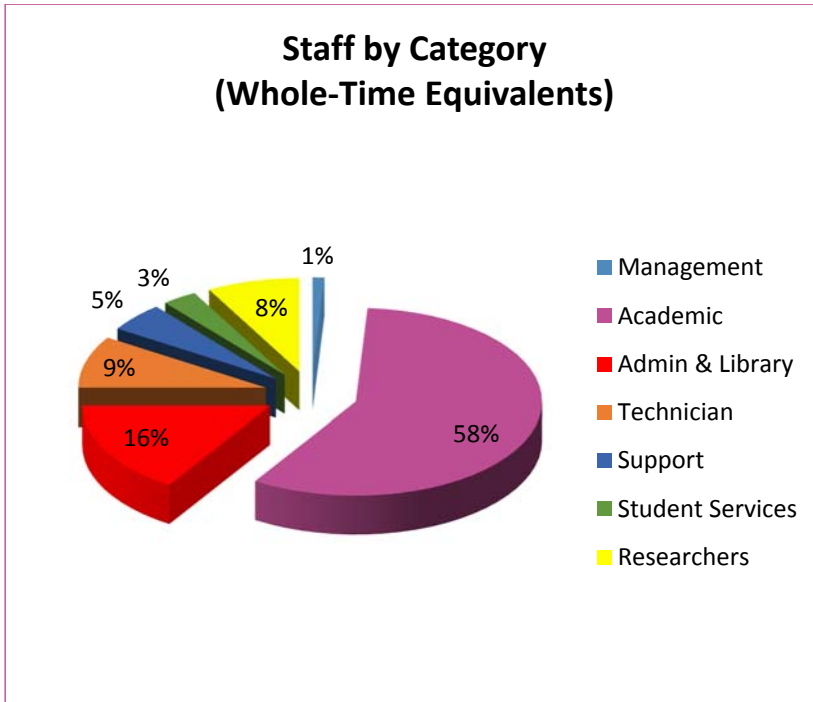
Total Staff Numbers

	WTE	Headcount
Permanent	862.95	933.00
Temporary	160.58	448.00
TOTAL	1,023.53	1,381.00



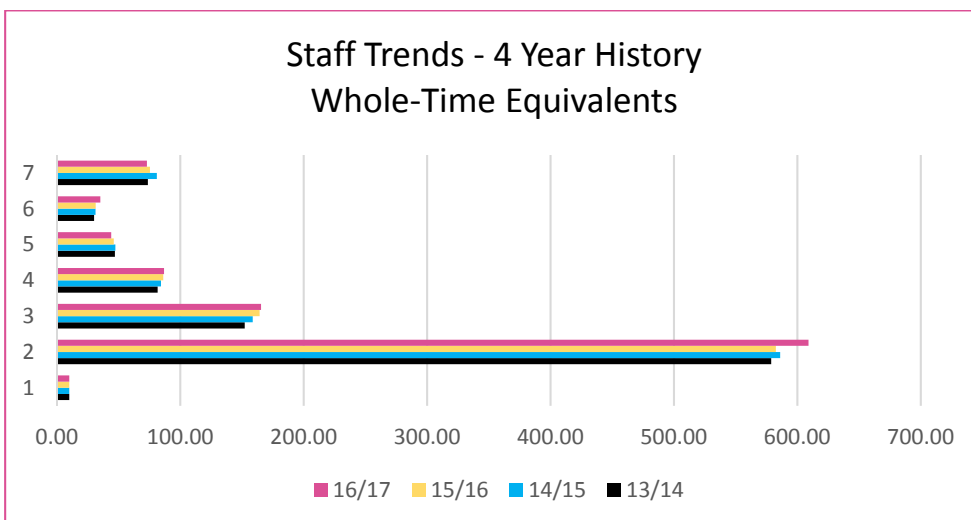
Staff by Category

	WTE	Headcount
Management	10.00	10.00
Academic	609.03	798.00
Admin & Library	165.47	179.00
Technician	86.87	90.00
Support	44.00	60.00
Student Services	35.18	162.00
Researchers	72.98	82.00
	1,023.53	1,381.00



Staff Trends – 4 Year History (Whole-Time Equivalents)

	13/14	14/15	15/16	16/17
Management	10.00	10.00	10.00	10.00
Academic	578.87	586.05	582.63	609.03
Admin & Library	152.15	158.74	164.33	165.47
Technician	81.62	84.42	86.22	86.87
Support	46.96	47.45	46.09	44.00
Student Services	30.22	31.38	31.46	35.18
Researchers	73.75	81.01	75.44	72.98
Total	973.57	999.05	996.17	1,023.53



5.3 Staff Achievements

Congratulations were extended to the following:

- Shane Cronin and Darragh Coakley, Technical Officers, Department of Technology Enhanced Learning who presented a paper about “microlearning” at the prestigious annual Association for Learning Technology (ALT) Conference at Warwick University on 5 September.
- Eamonn Butler, Lecturer, and colleagues in the Department of Physical Sciences for their work in establishing an online air quality monitoring station at the Institute. This work, performed in collaboration with the Environmental Protection Agency (EPA) will make a significant contribution to the minimisation of air pollution fields in the region.
- Prof. Margaret Linehan, Head of School of Humanities who received the “Companionship of BAM International Award” on 6 September at the 30th anniversary conference of BAM held at the University of Newcastle-Upon-Tyne. Companionship of BAM is an award made by invitation only in recognition of outstanding contributions to the field of Management.
- Colin Manning, Lecturer, Department of Computer Science who was admitted to:
 - the register of professional representatives by the European Union Intellectual Property Office (EUIPO)
 - the register of Trade Mark Agent (Ireland) by the Irish Patents Office
- Jonathan Sherwin, Lecturer, Department of Computer Science who presented a short paper titled “Improved Data Centre Network Management Through Software-Defined Networking” at the Collaborative European Research Conference on 23 September.
- Trevor Hogan, Lecturer, Media Communications who successfully defended his PhD thesis on 18 November. Trevor was conferred with a Doctor rerum naturalium (Magna cum Laude) from the Bauhaus-Universität Weimar, Germany for work on his thesis “Data and Dasein, a Phenomenology of Human-Data Relations”. He has presented aspects of this work at a number of international conferences and has also published two journal articles with Transactions on visualisation and Computer Graphics (IEEE), and Interacting with Computers (Oxford Journals).
- Dr Ruairí O’Reilly, Lecturer, Department of Computer Science who was responsible for the organisation and hosting of a developer focused on the open-source content management system Drupal. The Drupal Camp Conference saw over 40 professional Drupal developers attend the two day event with a number of sessions relating to the development and maintenance of Content Management Systems presented.
- Dr Brendan J. Murphy, President who was awarded the title of Honorary Senator of Hochschule Darmstadt (Hda), Germany on 22 November. The award recognises the role that CIT and Dr Murphy in particular has played in the development of the German institution. In a relationship that has lasted almost 30 years, both CIT and Hda have worked together on a range of initiatives including student exchange, joint programmes, and research.
- Al Devine, Part-time Lecturer, Department of Organisation & Professional Development, who project-managed Cork City Council’s Litter fines project, which received the 2016 Chambers Ireland Excellence in Local Government Innovation Award at an award ceremony on 24 November 2016.
- Thirteen members of the Institute’s academic staff who received the designation of Professor on 2 December. The designation recognises the individual’s academic standing, their body of work and their contribution to the academic activities of the Institute. They are as follows:
 - Dr John Barrett, Head of Academic Studies, Nimbus Research Centre
 - Dr Noel Barry, Head of Academic Affairs, School of Graduate Studies
 - Dr Aidan Coffey, Senior Lecturer, Department of Biological Sciences
 - Dr Guillaume Huyet, Head of Department of Physical Sciences
 - Dr Gerard Kelly, Head of Department of Mechanical, Biomedical & Manufacturing Engineering
 - Dr Margaret Linehan, Head of School of Humanities
 - Dr Hugh McGlynn, Head of School of Science & Informatics
 - Mr Sean F. O’Leary, Senior Lecturer, Department of Mechanical, Biomedical & Manufacturing Engineering
 - Dr Jim O’Mahony, Senior Lecturer, Department of Biological Sciences
 - Dr Dirk Pesch, Head of Nimbus Research Centre

- Dr Irene Sheridan, Head of CIT Extended Campus
 - Dr Roy Sleator, Senior Lecturer, Department of Biological Sciences, and BioExplore Research & Innovation Centre
 - Dr Paul Walsh, Lecturer, Department of Computer Science
- Retired Staff who received Certificates of Merit from WorldSkills for their contribution as experts in their designated skills. The Certificates of Merit were presented to the following at the IrelandSkills Awards Ceremony on 9 December:
 - Tony Hegarty
 - Jack Lynch
 - Tom Kelly
 - Henry Acheson
 - George Treacy
 - Peter Deasy
 - Eamonn Lane
 - Niall Shanahan
 - Laura Crowe, Assistant Lecturer, Department of Physical Sciences, on her selection to the Irish Team which ran in the European Cross Country Championships on 11 December in Chia, Italy.
 - Jonathan Sherwin, Lecturer, Department of Computer Science who presented a poster titled “Intelligent Management of OpenFlow Rule installation in Data Center Networks” at the ACM Conference on Emerging Network Experiments and Technologies (CoNEXT) on 12 December.
 - Dr Breda Kenny, Head of Hincks Centre for Entrepreneurship Excellence who was re-elected for a second three year term to the Board of the European Council for Small Business & Entrepreneurship (ECSB) in December. Dr Kenny has responsibility for research collaboration and industry engagement on the board, as well as coordinating the ECSB Case Writing Competition for original teaching cases that advance the field of entrepreneurship and small business.
 - The Staff of the Department of Tourism & Hospitality who were recognised for excellence in food safety at the Food Safety Assurance Award Ceremony on 22 February. The Department was among 21 award winners who received awards based on excellence across a number of criteria, including structural and operational hygiene, food safety and protection, personal hygiene, staff facilities, and food safety management system documentation.
 - Prof. Roy Sleator, Senior Lecturer, Department of Biological Sciences who was awarded a Doctorate of Science by UCC on 24 February.
 - Oonagh O’Brien, Lecturer, Department of Computer Science who organised a Connecting Women in Technology (CWIT) 2017 Conference “Walk your Truth – Be yourself in an ever changing world” at the Institute on 11 April. The event was to encourage Women in Technology careers by giving career development seminars and mentoring, and was run in conjunction with Dell EMC, McAfee, Quest and Intel.
 - Jesse Presley Jones, Lecturer, CIT CCAD who represented Ireland at the prestigious Venice Biennale 2017, the renowned international art exhibition. The Irish Pavilion opened on 10 May when Jesse’s work titled “Tremble Tremble” was unveiled to a rapturous response.
 - To the AnSEO Team who won the Student Engagement and Communications Award and to the Department of Biological Sciences who won the Career Impact Strategy Award at the Annual Education Awards on 25 May.
 - Dr Haithem Afli, Assistant Lecturer, Department of Computer Science who won one of the 2017 European Association for Machine Translation (EAMT) awards and who was the main organiser and the Programme Chair of the First Workshop on Social Media and User Generated Content Machine Translation at the 20th Annual Conference of the European Association for Machine Translation on 31 May.
 - The Lord Mayor of Cork hosted a Civic Reception to mark the retirement of Dr Brendan J. Murphy, President on 13 June in the Council Chamber, Cork City Hall.
 - Seán McShera, Lecturer, Department of Electrical & Electronic Engineering who received Chartered Engineer through Engineers Ireland. He is also a member of the Society of Light and Lighting.
 - Jonathan Sherwin, Lecturer, Department of Computer Science who presented a poster titled “Software Defined Networking for Flow Management in Data Centre Networks” on 26 June.

- Capt. Vivion Gough, Head of Department of Maritime Studies, who received the Special Recognition Award at the Maritime Industry Awards 2017 on 29 June.
- Colin Manning, Lecturer, Department of Computer Science, who was awarded second prize in the European Communities Trade Mark Association (ECTA) annual award for papers.
- Dr Vincent Emeakaroha, Assistant Lecturer, Department of Computer Science, who was an invited Guest Editor on the following international journals:
 - 7th Special Section on Cloud Computing 2017 – Journal of Computer and Electrical Engineering
 - Special issue on Cloud and Communication 2017 – Journal of Electrical and Computer Engineering
- Dr Haithem Afli, Assistant Lecturer, Department of Computer Science, who led the ADAPT Team that took part in a new training scheme organised by the USA National Science Foundation (NSF) and Science Foundation Ireland (SFI). The new collaboration between SFI and NSF for the Innovation Corps (I-Corps) Programme is the first of its kind in Europe and focuses on the development of entrepreneurial skills that will enable researchers to realise opportunities to enhance the economic and societal impact of their research.
- Prof. Paul Walsh, Lecturer, Department of Computer Science who was appointed to the Irish Revenue Commissioners Research Advisory Panel and as External Examiner for the University of Ulster, Tralee Institute of Technology, and Athlone Institute of Technology.

Staff members who were conferred include:

- Dr Clive Atkinson, Doctor of Philosophy
- Dr Gillian Carey, Doctor of Philosophy
- Dean Carter, Bachelor of Business (Honours) in Accounting
- Dr Vincent Emeakaroha, Postgraduate Diploma in Teaching & Learning in Higher Education
- Anthony Fitzgerald, Master of Science in Cloud Computing
- Dr Orla Flynn, Doctor of Philosophy
- Dr Paul Green, Doctor of Philosophy
- Mary Hegarty, Bachelor of Music (Honours)
- Dr Trevor Hogan, Doctor of Rerum Naturalium (Magna cum Laude)
- Dr Simon Knowles, Doctor of Philosophy
- Colin Manning, LL.M
- Kim Mulcahy, MA in Teaching & Learning
- Dr Philip Murray, Doctor of Philosophy
- Dr Marie Nicholson, Doctor of Philosophy
- Dr Marc Ó Riain, Doctor of Philosophy
- Adrian O'Connor, Bachelor of Engineering (Honours) in Advanced Manufacturing Technology
- Dr Paul O'Sullivan, Doctor of Philosophy
- Dr Trish Rooney, Doctor of Education
- Peter Walter, MA in Teaching & Learning

Single Subject Certification:

- Jing Hua Ye

New Appointments:

The following staff were confirmed for appointment during the academic year 2016/17:

Ian Aherne, Researcher, Nimbus Research Centre
 Dr Alejandro Arbelaez Rodriguez, Assistant Lecturer, Department of Computer Science
 Dr Killian Barton, Researcher, CAPPA
 Dr Ken Bruton, Assistant Lecturer, Mechanical, Biomedical & Manufacturing Engineering
 Dr Eoin Byrne, Researcher, Nimbus Research Centre
 Nick Cashin, Assistant Lecturer, Centre of Craft Studies
 Dr Krishnakumar Chullipallyalil, Researcher, CAPPA
 Maurice Clery, Technical Officer, School of Science & Informatics
 Dr Laura Climent, Assistant Lecturer, Department of Computer Science

Jason Collins, Assistant Lecturer, Department of Construction
 Dr Louise Collins, Assistant Lecturer, Department of Biological Sciences
 Dr Fred Creedon, Assistant Lecturer, Department of Organisation & Professional Development
 Úna Cremin, Technician, IT Services
 Rosarie Dineen, Library Assistant, Bishopstown Campus
 Juan José Dolorea Martinez, Researcher, Nimbus Research Centre
 Fiona Downey, Learning Support Advisor, Student Services
 Dr Vincent Emeakaroha, Assistant Lecturer, Department of Computer Science
 Seán Fitzgerald, Technical Officer, School of Mechanical, Electrical & Process Engineering
 Michelle Forde, Staff Officer, Finance Office
 Lenka Forrest, Admissions and Examinations Officer
 Deirdre Goggin, Recognition of Prior Learning & Work Based Learning, Extended Campus
 Dr Catriona Guinane, Assistant Lecturer, Department of Biological Sciences
 David Hamilton, Assistant Lecturer, Department of Electrical & Electronic Engineering
 Johnny Hanrahan, Assistant Lecturer, CIT CSM
 Cliona Hatano, Academic Success Coach, Student Engagement and Retention
 Seán Hegarty, Library Assistant, CIT CSM
 Ryan Higgins, Assistant Lecturer, Centre of Craft Studies
 Dr Vesna Jaksic, Assistant Lecturer, Department of Civil, Structural & Environmental Engineering
 Jacqueline Kehoe, Researcher, Nimbus Research Centre
 Dr Aoife Killeen, Assistant Lecturer, Department of Applied Social Studies
 Calvin Kissane, Technical Officer, IT Services
 Tokunboh Lapite, Technical Officer, IT Services
 Sharon Lehane, Assistant Lecturer, Department of Management & Enterprise
 Kevin Lenihan, Assistant Lecturer, Centre of Craft Studies
 Maria Looney, Researcher, Halpin Centre, NMCI
 Dr Conor Lynch, Researcher, Nimbus Research Centre
 Marguerite Lynch, Staff Officer, Registrar's Office
 Robert Lynch, Researcher, Halpin Centre, NMCI
 Yvonne Mackey, Clerical Officer, Student Services
 Nicola Maunsell, Staff Officer, Finance Office
 Mary J McCarthy, Academic Success Coach, Student Engagement and Retention
 Deirdre McHugh, Student Counsellor, Student Services
 Dr Helen McGuirk, Head of Hincks Centre for Entrepreneurship Excellence
 Séamus McNamara, Technician, IT Services
 Lisa Moran, Assistant Staff Officer, Student Engagement and Retention
 Dr Craig Murphy, Assistant Lecturer, Department of Biological Sciences
 Joan Murphy, Senior Staff Officer, Human Resources
 Dr Noel Murray, Head of Department of Tourism & Hospitality
 Máire Ní Mhuimhneacháin, Staff Officer, Human Resources
 Georgi Nikolov, Research Assistant, Nimbus Research Centre
 Tom O'Connell, Assistant Lecturer, Centre of Craft Studies
 Henry O'Dea, Technical Assistant 1, School of Science & Informatics
 Dr Gareth O'Donnell, Lecturer, Department of Mechanical, Biomedical & Manufacturing Engineering
 Derek O'Leary, Assistant Lecturer, Department of Architecture
 Dr Eileen O'Leary, Assistant Lecturer, Department of Physical Sciences
 John O'Leary, Caretaker
 Mary O'Leary, Staff Officer, Finance Office
 Irene O'Mara, Assistant Lecturer, CIT CSM
 Dr Ruairí O'Reilly, Assistant Lecturer, Department of Computer Science
 Judy Rea, Lecturer, Department of Electrical & Electronic Engineering
 Capt. Sineád Reen, Head of Department of Maritime Studies, NMCI
 Jean Ricken, Librarian
 Brian Sheehan, Caretaker
 Dr Svetlana Slepneva, Assistant Lecturer, Department of Physical Sciences
 Gábor Szacsuri, Technical Officer, School of Building & Civil Engineering
 Emily Twomey, Researcher, Nimbus Research Centre
 Susan Varian, Staff Officer, Admissions Office
 Dr Sheila Walsh, Assistant Lecturer, Department of Marketing & International Business



CIT CORK SCHOOL OF MUSIC



6. Financial Report

Cork Institute of Technology

6.1 Financial Report 2016/2017

6.2 Audited Accounts 2016/2017

6.1 Financial Report 2016/17

This financial report covers the period from 1 September 2016 to 31 August 2017. The results show a consolidated operating surplus of €4.5million. This represents an improved financial position. (2016: €0.7million).

Pension Benefits

The Institute is required to account for deferred pension benefits from 2016/17 onwards. A common approach was taken across the institute of technology sector and the retirement benefit cost been incorporated in the financial statements for the first time in 2016/17. A corresponding income figure in respect of the deferred pension funding has also been included. These account for the apparent large increases in income and expenditure in the period.

Income

Income increased by over 27% from €99.8million to €127.3million during the period, however, excluding the deferred pension funding, the actual increase was €3.1million (3.1%). Tuition fee income increased by €0.6million to €35.5million. State grants increased by €2.9million to €41.3million. Other income categories were relatively static with the exception of Research Grant & Contracts which decreased by €1.1million, but this was countered by a similar increase €1million in Other Income. Whole-time equivalent students increased by 1% from 9,377 to 9,443 during the period.

Expenditure

The Institute's consolidated current expenditure increased by 24% from €99.1million to €123million. Excluding the retirement benefit costs, expenditure actually declined marginally by €0.48million (0.5%) to €98.6million. Academic departments and research activity cost €68.3million (69%), premises cost €7.4million (7.5%) and administrative and support services cost €15.7million (16%) with student services costing €7.2million (7%).

The Institute's pay bill increased by just under 0.6% (€0.4million) during 2016/17 and now stands at €68.7million compared with €68.3m in 2016. The average number of full time equivalent staff increased to 1,023 (2016: 996). Staff costs, excluding retirement benefits are the single largest expenditure line in the Institute, accounting for 69% of all expenditure.

Other costs decreased by €0.75million (3%) to €24million. This can be attributed to the timing of expenditure on ongoing projects.

Research & Development

Income from Research Grants and Contracts inclusive of capital funding, decreased from €13.3million to €12million. There was a corresponding reduction in expenditure as this is linked to project budgets. The majority of R&D funding is based on success in competitive State and EU funding programmes which are cyclical in nature and in this, an increase is expected in 2017/18.

Reserves

For the year ending 31 August 2017, the Institute's Reserves (excluding Deferred Capital Grants) were €9.9million, of which €7.6million are restricted reserves for capital projects.

6.2 Audited Accounts 2016/17

Statement of Institute Responsibilities

Statement of Internal Control

Report of the Comptroller and Auditor General

Consolidated Statement of Comprehensive Income

Consolidated Statement of Changes in Reserves and Capital Account

Consolidated and Institute Statement of Financial Position

Consolidated Statement of Cash Flows

Notes to the Financial Statements

6.2.1 Statement of Institute Responsibilities

The Institutes of Technology Acts 1992 to 2006 require the Institute to prepare financial statements in such form as may be approved by the Higher Education Authority and to submit them for audit to the Comptroller and Auditor General. In preparing these financial statements, the Institute is required to:

- Select suitable accounting policies and then apply them consistently.
- Make judgements and estimates that are reasonable and prudent.
- Prepare the financial statements on the going concern basis, unless that basis is inappropriate.
- Disclose and explain any material departures from applicable accounting standards.

The Institute is responsible for keeping adequate accounting records which disclose with reasonable accuracy at any time the financial position of the Institute and which enable it to ensure that the financial statements comply with the Institutes of Technology Acts 1992 to 2006. The Institute is also responsible for safeguarding its assets and for taking reasonable steps for the prevention and detection of fraud and other irregularities.



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.2 Statement of Internal Control

Responsibility for the System on Internal Control

The Governing Body acknowledges its responsibility for ensuring that an effective system of internal control is maintained and operated in the Institute and for putting in place processes and procedures for the purpose of ensuring that the system is effective.

Reasonable Assurance

The system can provide only reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or would be detected in a timely period.

We confirm that the Statement on Internal Control is reviewed by the Audit and Risk Committee and the Governing Body to ensure it accurately reflects the control system in operation during the period.

We confirm that the Statement on Internal Control is reviewed by the Comptroller and Auditor General as part of their external audit to confirm there are no material inconsistencies with the information of which they are aware from their audit work on the financial statements.

Key Control Procedures

The Governing Body has taken steps to ensure an appropriate control environment is in place by:

- Clearly defining management responsibilities
- Developing procedures and regulations which are reviewed regularly and are documented, implemented and up to date.
- Establishing formal procedures through various committee functions to monitor the activities and safeguard the assets of the organisation (Audit Committee/Finance Committee/Strategic Development Committee).
- Adopting a Good Practice Guidelines Document which includes clear terms of reference for Governing Body Committees.
- Developing a strong culture of accountability across all levels of the organisation.

Cork Institute of Technology has developed processes to identify and evaluate business risks. This is achieved in a number of ways including:

- Developing an Essential Activities & Process Model to facilitate management and the Governing Body in identifying the key activities and the processes in place to manage its operations effectively.
- Adoption of a Risk Management Policy.
- Identifying key risks, risk owners and the controls to mitigate these risks.
- Developing annual and longer term targets and reporting on results achieved.
- Implementation of an Internal Control Framework.
- A comprehensive budgeting system with an annual budget which is reviewed and agreed by the Governing Body.
- Regular reviews by the Governing Body and its committees of periodic and annual financial reports which indicate financial performance against forecasts.
- Setting targets to measure financial and other performances.
- Clearly defined capital investment control guidelines.

Cork Institute of Technology has implemented a number of Management Information Systems to provide a means of comparing actual results to targets and forecasts. These systems include:

- Financial Management – Agresso
- Human Resources and Payroll Management – CoreHR
- Travel and Expenses – CoreHR
- Student Administration – Banner
- Resource Allocation – Akari
- Timetabling – Syllabus

Cork Institute of Technology employs a range of actions to reduce the potential for fraudulent activity. CIT's internal control policy framework includes written policies and procedures requiring transactions to be properly authorised and providing for sufficient segregations of duties.

The Governing Body's monitoring and review of the effectiveness of the system of internal control is informed by the work of the Institute Executive and Management who have responsibility for the development and maintenance of the internal control framework, the Audit Committee, Internal Auditor and comments made by the Comptroller and Auditor General in his management letter.

Cork Institute of Technology has an outsourced internal audit function, which is in accordance with the Internal Audit Terms of Reference approved by the Governing Body and the Code of Governance of Irish Institutes of Technology.

Review of the effectiveness of the system on internal control

An Internal Audit Plan is approved by the Audit Committee annually. The plan takes account of areas of potential risk identified in a risk assessment exercise carried out with management at the start of the current planning cycle. Reports are provided to the Audit Committee on assignments carried out. These reports highlight deficiencies or weaknesses, if any, in the system of internal control and the recommended corrective measures to be taken where necessary. The Audit Committee receives regular reports on the status of issues raised.

We confirm that per Section 5.2.1 of the terms of reference of the Audit Committee, as approved by Governing Body, the Audit Committee reviewed the reports on Internal Controls and Internal Financial Controls for the year ended 31 August 2017 at their meetings on 17 October 2017 and reported to Governing Body on 7 December 2017.

Matters of non-compliance and Internal Control Weaknesses

There were no weaknesses in internal control that resulted in material losses, contingencies or uncertainties which required disclosure in the financial statements.

To reflect the Code of Practice for the Governance of State Bodies (2016) a revised Code of Governance for Institutes of Technology was published by THEA, which is effective from 1st January 2018; this code was approved by the Governing Body of Cork Institute of Technology on the 12 April 2018.

The Governing Body have committed to fully implementing the new code by 31 December 2018. During the period being reported the Governing Body considers that it has complied with the requirements of the 2012 Code or in the case of non-compliance provided adequate explanation. In relation to subsidiary companies, the relevance of the Code to such companies is currently under review nationally. However, the board of the companies will adopt the new code in so far as it is practical to do so pending the outcome of this review.

Signed on behalf of the Governing Body



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.3 Report of the Comptroller and Auditor General for presentation to the Houses of the Oireachtas

Cork Institute of Technology

Opinion on financial statements

I have audited the financial statements of Cork Institute of Technology for the year ending 31 August 2017 as required under the provisions of the Institutes of Technology Acts 1992 to 2006. The financial statements comprise

- the consolidated statement of comprehensive income
- the consolidated statement of changes in reserves and capital account
- the consolidated and Institute statement of financial position
- the consolidated statement of cash flows, and
- the related notes, including a summary of significant accounting policies.

In my opinion, the financial statements give a true and fair view of the assets, liabilities and financial position of the Group and Institute at 31 August 2017 and of its income and expenditure for the year then ended in accordance with Financial Reporting Standard (FRS) 102 - *The Financial Reporting Standard applicable in the UK and the Republic of Ireland*.

Basis of opinion

I conducted my audit of the financial statements in accordance with the International Standards on Auditing (ISAs) as promulgated by the International Organisation of Supreme Audit Institutions. My responsibilities under those standards are described in the appendix to this report. I am independent of the Institute and have fulfilled my other ethical responsibilities in accordance with the standards.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Report on information other than the financial statements, and on other matters

The Institute has presented certain other information together with the financial statements. This comprises the statement of Institute responsibilities and the statement on internal control. My responsibilities to report in relation to such information, and on certain other matters upon which I report by exception, are described in the appendix to this report.

I have nothing to report in that regard.

Seamus McCarthy
Comptroller and Auditor General
19 December 2018

Appendix to the C&AG Report

Responsibilities of Governing Body members

The statement of Institute responsibilities sets out the Governing Body members' responsibilities. The Governing Body members are responsible for

- the preparation of financial statements in the form prescribed under the Institutes of Technology Acts 1992 to 2006
- ensuring that the financial statements give a true and fair view in accordance with FRS102
- ensuring the regularity of transactions
- assessing whether the use of the going concern basis of accounting is appropriate, and
- such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Responsibilities of the Comptroller and Auditor General

I am required under the Institutes of Technology Acts 1992 to 2006 to audit the financial statements of the Institute and to report thereon to the Houses of the Oireachtas.

My objective in carrying out the audit is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement due to fraud or error. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the International Standard on Auditing (ISAs) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the ISAs, I exercise professional judgment and maintain professional scepticism throughout the audit. In doing so,

- I identify and assess the risks of material misstatement of the financial statements whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional

omissions, misrepresentations, or the override of internal control.

- I obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls.
- I evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures.
- I conclude on the appropriateness of the use of the going concern basis of accounting and, based on the audit evidence obtained, on whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Institute's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my report. However, future events or conditions may cause the Institute to cease to continue as a going concern.
- I evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Information other than the financial statements

My opinion on the financial statements does not cover the other information presented with those statements, and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, I am required under the ISAs to read the other information presented and, in doing so, consider whether the other information is materially inconsistent with the financial statements or with knowledge obtained during the audit, or if it otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

Reporting on other matters

My audit is conducted by reference to the special considerations which attach to bodies in receipt of substantial funding from the State in relation to their management and operation. I report if there are material matters relating to the manner in which public business has been conducted.

I seek to obtain evidence about the regularity of financial transactions in the course of audit. I report if there is any material instance where public money has not been applied for the purposes intended or where transactions did not conform to the authorities governing them.

I also report by exception if, in my opinion,

- I have not received all the information and explanations I required for my audit, or
- the accounting records were not sufficient to permit the financial statements to be readily and properly audited, or
- the financial statements are not in agreement with the accounting records.

6.2.4 Consolidated Statement of Comprehensive Income for year ended 31 August 2017

	Note	Consolidated 31/08/17 €000's	Institute 31/08/17 €000's	Consolidated 31/08/16 €000's	Institute 31/08/16 €000's
Income					
State Grants	3	41,348	41,348	38,456	38,456
Tuition Fees & Student Contribution	4	35,502	35,502	34,891	34,891
Research Grants & Contracts	5	12,045	11,142	13,157	12,462
Student Support Funding	7	549	549	486	486
Other Income	8	7,857	4,033	6,836	3,485
Amortisation of Deferred Capital Grants	20	5,628	5,597	5,885	5,844
Interest Income		28	19	34	34
Deferred Pension Funding	28	24,404	24,404	-	-
Total Income		127,361	122,594	99,745	95,658
Expenditure					
Staff costs	9	68,709	66,783	68,284	66,507
Retirement Benefit Costs	28	24,404	24,404	-	-
Other Operating Expenses	10	24,042	21,391	24,800	22,751
Depreciation	13	5,890	5,693	6,037	5,839
Total Expenditure		123,045	118,271	99,121	95,097
Surplus before other gains/(losses) and share of surplus/(deficit) in joint ventures & associates		4,316	4,323	624	561
Share of Operating Surplus in Joint Venture	5	215	215	97	97
Surplus before Tax		4,531	4,538	721	658
Taxation		(6)	-	-	-
Surplus before other gains and losses		4,525	4,538	721	658
Experience (losses)/gains on retirement benefit obligations		-	-	-	-
Changes in assumptions underlying the present value of retirement benefit obligations	28	10,474	10,474	-	-
Total actuarial gains/(losses) in the year		10,474	10,474	-	-
Adjustment to deferred retirement benefits funding		(10,474)	(10,474)	-	-
Total comprehensive income for the year	12	4,525	4,538	721	658

All items of income and expenditure relate to continuing activities. Notes 1 – 29 form part of these financial statements.

Signed on behalf of the Governing Body



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.5 Consolidated Statement of Changes in Reserves and Capital Account for year ended 31 August 2017

	Note 20	Note 22				
	Restated Deferred Capital Grants €000's	Capital Development Reserve €000's	Restricted Reserve €000's	Capital Reserve Student Services Co Ltd €000's	Revenue Reserves €000's	Total €000's
Opening Balance at 1 September 2015	103,802	6,270	9	321	(248)	110,154
Surplus for the year before appropriations	-	-	-	-	721	721
Amortisation of Deferred Capital Grants	(5,885)	-	-	-	-	(5,885)
Research Grants & Contract allocated to Capital	782	-	-	-	-	782
Fees allocated to Capital	29	-	-	-	-	29
State Grant Allocated to Capital	1,335	-	-	-	-	1,335
Transfer to CDR	-	30	-	-	(30)	-
Transfer from CDR to Expenditure	-	(3)	-	-	3	-
Transfer from CDR to DCG	1,485	(1,485)	-	-	-	-
Movement for the period	(2,254)	(1,458)	-	-	694	(3,018)
Balance at 31 August 2016	101,548	4,812	9	321	446	107,136
Surplus for the year before appropriations	-	-	-	-	4,525	4,525
Amortisation of Deferred Capital Grants	(5,625)	-	-	-	-	(5,625)
Amount released on Disposal of Fixed Assets	(3)	-	-	-	-	(3)
Research Grants & Contract allocated to Capital	111	-	-	-	-	111
State Grant allocated to Capital	1,968	-	-	-	-	1,968
Student Support allocated to Capital	15	-	-	-	-	15
Transfer to CDR	-	2,987	-	-	(2,987)	-
Transfer from CDR to Expenditure	-	(225)	-	-	225	-
Transfer from CDR to DCG	219	(219)	-	-	-	-
Transfer from CDR to Revenue Reserves	-	(122)	-	-	122	-
Movement for the period	(3,315)	2,421	-	-	1,885	991
Balance at 31 August 2017	98,233	7,233	9	321	2,331	108,127

Notes 1 – 29 form part of these financial statements.

Signed on behalf of the Governing Body



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.6 Consolidated and Institute Statement of Financial Position for year ended 31 August 2017

	Note	Consolidated 31/08/17 €000's	Institute 31/08/17 €000's	Consolidated 31/08/16 €000's	Institute 31/08/16 €000's
Fixed Assets					
Property, plant & equipment	13	99,518	98,931	102,587	101,956
Investments	14	217	50	216	50
		99,735	98,981	102,803	102,006
Current Assets					
Inventory		92	-	111	-
Receivables	15	7,873	7,359	5,214	5,081
Cash and Cash Equivalents	16	21,946	21,188	13,931	12,965
		29,911	28,547	19,256	18,046
Less Payables; Amounts due within 1 year	17	(20,731)	(20,389)	(14,633)	(14,312)
Net Current Liabilities		9,180	8,158	4,623	3,734
Total Assets less Current Liabilities		108,915	107,139	107,426	105,740
Payables; Amounts due after 1 year	18	-	-	(3)	(3)
Provisions for Liabilities & Charges	21	(788)	(788)	(287)	(287)
Retirement Benefits					
Retirement benefits obligations	28	355,107	355,107	337,603	337,603
Deferred retirement benefit funding asset	28	(355,107)	(355,107)	(337,603)	(337,603)
Total Net Assets		108,127	106,351	107,136	105,450
Deferred State Capital Grants	20	98,233	98,168	101,548	101,483
Capital Development Reserve	22	7,233	7,233	4,812	4,812
Capital Reserve - Student Services Co Ltd		321	-	321	-
Restricted Reserve		9	9	9	9
		7,563	7,242	5,142	4,821
Unrestricted Reserves					
Income & Expenditure Reserve		2,331	941	446	(854)
		2,331	941	446	(854)
Total		108,127	106,351	107,136	105,450

Notes 1 – 29 form part of these financial statements.

Signed on behalf of the Governing Body



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.7 Consolidated Statement of Cash Flows for year ended 31 August 2017

	Year Ended 31/08/17 €000's	Year Ended 31/08/16 €000's
Net Cash flow from operating Activities		
Surplus/(Deficit) for year	4,525	721
Depreciation of fixed assets	5,890	6,037
Amortisation of deferred capital grants	(5,628)	(5,886)
(Increase)/Decrease in Stock	19	(21)
Decrease/(Increase) in Receivables	(2,158)	5,556
Increase in Payables	6,095	178
Decrease in Investments	(1)	4
Loss on Fixed Asset Disposal	3	1
Investment Income	(215)	(195)
Interest Income	(28)	(34)
State funds allocated to capital	2,094	2,146
Increase in Restricted Reserve	-	9
Net Cash Inflow from Operating Activities	10,596	8,516
Cash Flows from Investing Activities		
Payments to acquire property, plant & equipment	(2,824)	(4,048)
Net Cash Flows from Investing Activities	(2,824)	(4,048)
Cash Flows from Financing activities		
Investment Income	215	195
Interest Received	28	34
Net Cash Flows from Financing activities	243	229
Net increase/(decrease) in cash equivalents in the year	8,015	4,697
Cash & Cash Equivalents at 1 September	13,931	9,234
Cash & Cash Equivalents at 31 August	21,946	13,931

Notes 1 – 29 form part of these financial statements.

Signed on behalf of the Governing Body



Chairman: Mr Bob Savage
Date: 13 December 2018



President: Dr Barry O'Connor
Date: 13 December 2018

6.2.8 Notes to the Financial Statements for year ended 31 August 2017

1. Significant Accounting Policies

The accounting policies which are considered material in relation to the financial statements are summarised below. They have all been applied consistently throughout the year and to the preceding year.

a) General Information

The primary objectives of the Institute are to provide third level education and other associated activities.

The financial statements have been prepared under the historical cost convention, and in accordance with Financial Reporting Standard 102 (FRS 102) issued by the Financial Reporting Council and promulgated for use in Ireland by Chartered Accountants Ireland and with the requirements of the Higher Education Authority.

The functional currency of FRS 102 Cork Institute of Technology is considered to be Euro because that is the currency of the primary economic environment in which the Institute operates. The consolidated financial statements are also presented in Euro. Foreign operations are included in accordance with the policies set out below.

b) Basis of Consolidation

The Group financial statements consolidate the financial statements of the Institute and its subsidiary undertakings made up to 31 August 2017.

The results of subsidiaries acquired or sold are consolidated for the periods from or to the date on which control passed.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by the Group. All intra-group transactions, balances, income and expenses are eliminated on consolidation.

c) Going Concern

The Governing Authority is satisfied that the Institute has adequate resources to meet its obligations as they fall due for the foreseeable future. Thus, they continue to adopt the going concern basis of accounting in preparing the annual financial statements.

d) Property, Plant and Equipment

(i) Land and Buildings

Tangible fixed assets are stated at cost or valuation, net of depreciation and any provision for impairment. Depreciation is provided on all tangible fixed assets, other than investment properties and freehold land, at rates calculated to write off the cost or valuation, less estimated residual value, of each asset on a straight-line basis over its expected useful life, as follows:

Freehold buildings	30 – 50 years
--------------------	---------------

Residual value represents the estimated amount which would currently be obtained from disposal of an asset, after deducting estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

(ii) Equipment

From 1 September 2009, equipment costing less than €3,000 per individual item is written off to the income and expenditure account in the year of acquisition. Where individual items of equipment purchased are below the capitalisation limit (€3,000) and the total purchase invoice is in excess of the limit, these items are individually capitalised in the normal way. All other equipment is capitalised at cost. Capitalised equipment is depreciated on a straight-line basis over its useful economic life as follows:

Fixtures & Fittings including Prefabs	5 – 10 years
Car Parks	20 years
Computer Equipment	3 years
Plant & Machinery	10 years
Equipment	5 years
Motor Vehicles	5 years

All equipment funded from Research Grants and Contracts is depreciated over the life of the assets in line with the policy for all other Fixed Assets.

Assets in the Student Services Company Limited are depreciated over 2-5 years - straight line.

e) Joint Venture Undertakings

In the Institute financial statements, investments in associates are accounted for using the equity method. Investments in joint venture undertakings are initially recognised at the transaction price (including transaction costs) and are subsequently adjusted to reflect the Institute's share of the profit or loss and other comprehensive income of the associate. Goodwill arising on the acquisition of associates is accounted for in accordance with the policy set out above. Any unamortised balance of goodwill is included in the carrying value of the investment in joint venture undertakings.

In the Institute financial statements investments in joint venture undertakings are accounted for at cost less impairment.

f) Inventory

Inventory is stated at the lower of cost and estimated selling price less costs to sell, which is equivalent to the net realisable value. Cost is calculated using the FIFO (first-in, first-out) method. Provision is made for obsolete, slow-moving or defective items where appropriate. Inventory shown in the Statement of Financial Position relates to merchandise in Cosmos Education Limited and consumable stock in the Student Services Company Limited.

g) Impairment of Assets

Assets, other than those measured at fair value, are assessed for indicators of impairment. If there is objective evidence of impairment, an impairment loss is recognised in profit or loss as described below.

Financial Assets

For financial assets carried at amortised cost, the amount of an impairment is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets carried at cost less impairment, the impairment loss is the difference between the asset's carrying amount and the best estimate of the amount that would be received for the asset if it were to be sold at the reporting date.

Where indicators exist for a decrease in impairment loss, and the decrease can be related objectively to an event occurring after the impairment was recognised, the prior impairment loss is tested to determine reversal. An impairment loss is reversed on an individual impaired financial asset to the extent that the revised recoverable value does not lead to a revised carrying amount higher than the carrying value had no impairment been recognised.

h) Taxation

(i) Corporation Tax

As an exempt charity, the Institute is not liable for corporation tax or income tax on any of its charitable activities. It is registered for value added tax, but since the supply of education is an exempt activity on which no output tax is charged it is unable to recover input tax on the majority of its purchases. Certain research and commercial activities within the Institute falls into the VAT net, any input or output tax relating to these activities is returned to the Revenue by the Institute.

(ii) Deferred Taxation

In subsidiary companies, who do not hold a charitable status and are therefore liable to corporation tax, deferred taxation is recognised in respect of all timing differences that have originated but not reversed at the Statement of Financial Position date. Provision is made at the rates expected to apply when the timing differences reverse. Timing differences are differences between taxable profits and results as stated in the financial statements that arise from the inclusion of gains and losses in taxable profits in period's difference from those in which they are recognised in the financial statements.

A net deferred tax asset is regarded as recoverable and, therefore, recognised only when, on the basis of all available evidence, it can be regarded as more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

i) Recognition of Income

State Grants

Recurrent state grants from the Higher Education Authority and other bodies are recognised in the period in which they are receivable. Non Recurrent Grants from the Higher Education Authority or other bodies received in respect of the acquisition or construction of Fixed Assets are treated as deferred Capital Grants and amortised in line with the depreciation over the life of the assets.

Fee Income

Fee income is accounted for on an accruals basis.

Research Grants and Contracts

Income from research grants and contracts is matched to expenditure and included in the year the expenditure is incurred unless the grant has performance related conditions or restrictions associated with it. The most common classes of such transactions are set out below:

(i) Donations with No Restrictions

Donations with no restrictions include amounts given to the Institute by way of cash or asset with no restriction as to how the donation should be used. Such donations are recorded in the Statement of Comprehensive Income on entitlement to the income.

(ii) Donations with Restrictions

Donations with restrictions are recorded within the Statement of Comprehensive Income on entitlement to the income. The restricted income received is held in the temporarily restricted reserve until such time that the expenditure is incurred in accordance with the restrictions.

(iii) Research Grants with Performance-related Conditions

Income from grants with performance-related conditions is recognised in the Statement of Comprehensive Income when the performance-related conditions are met. Grants with unfulfilled performance related conditions are held as deferred income until such time as the conditions are met, at which point the income is recorded in the Statement of Comprehensive Income.

(iv) Other

Income from other research grants and contracts is matched to expenditure and is included in the income of the year in which the related expenditure has been incurred.

Minor Capital Works

The Minister for Education and Skills introduced a scheme to devolve responsibility to the Institute for Summer and other Capital Works.

In all cases Minor Capital Works funding is recognised in the period received.

Income from Short-Term Deposits

All income from short-term deposits is credited to the income and expenditure account in the period in which it is earned.

j) Employee Benefits

(i) Retirement Benefits

Pension entitlements of staff recruited prior to 1 January 2013 are conferred under a defined benefit pension scheme established under the Education Sector Superannuation Scheme 2015. The scheme is operated on a Pay-as-You-Go basis, with superannuation deductions made from employees being retained by the Institute as an agreed part of its funding.

The Institute also operates the Single Public Service Pension Scheme ("single Scheme"), which is the defined benefit scheme for pensionable public servants appointed on or after 1 January 2013 in accordance with the Public Service Pensions (Single Scheme and Other Provisions) Act 2012. Single Scheme members' contributions are paid over by the Institute to the Department of Public Expenditure and Reform (DPER).

Pension costs charged to expenditure in the year reflect the benefits earned by current employees during the year and are shown net of staff pension contributions which, in respect of (i) the Education Sector Superannuation Scheme 2015, are retained by the Institute and (ii) the Single Scheme, are remitted to DPER. An amount corresponding to the pension cost is recognised as income to the extent that it is recoverable.

Actuarial gains or losses arising on scheme liabilities are reflected in the Statement of Comprehensive Income and a corresponding adjustment is recognised in the amount recoverable by the Institute from the Higher Education Authority.

The financial statements reflect, at fair value, the assets and liabilities arising from the Institute's pension obligations in respect of its current staff only and any related funding. The costs of providing pension benefits are recognised in the accounting periods in which they are earned by employees. Pension liabilities in respect of former employees who are in receipt of pensions are excluded. Retirement benefit scheme liabilities are measured on an actuarial basis using the projected unit credit method.

Subsidiary staff are not part of the Public Sector scheme and each company operates its own private scheme.

(ii) Short-Term Benefits

Short-term benefits such as holiday pay are recognised as an expense in the year, and benefits that are accrued at year end are included in the Payables figure in the Statement of Financial Position. There is no accrual for holiday pay for Academic staff at year end due to the nature of their contracts.

k) Foreign Currency

Transactions in foreign currencies are recorded at the rate of exchange at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the Statement of Financial Position date are reported at the rates of exchange prevailing at that date.

l) Leases

Assets held under finance leases, hire purchase contracts and other similar arrangements, which confer rights and obligations similar to those attached to owned assets, are capitalised as tangible fixed assets at the fair value of the leased asset (or, if lower, the present value of the minimum lease payments as determined at the inception of the lease) and are depreciated over the shorter of the lease terms and their useful lives. The capital elements of future lease obligations are recorded as liabilities, while the interest elements are charged to the profit and loss account over the period of the leases to produce a constant periodic rate of interest on the remaining balance of the liability.

Rentals under operating leases are charged on a straight-line basis over the lease term, even if the payments are not made on such a basis. Benefits received and receivable as an incentive to sign an operating lease are similarly spread on a straight-line basis over the lease term.

m) Deferred Capital Grants

Deferred capital grants represent unamortised value of accumulated funds allocated for fixed assets.

n) Reserves

Capital Development Reserve

The capital development reserve represents funds set aside by the Institute for specified capital development purposes. Such funds arise from Student Registration Fees, non-state capital donations, banking facility fees and transfers from Revenue Reserves, in the latter case, which have had the prior approval of the Higher Education Authority, together with bank interest earned on these monies. Such funds shall be retained in the Capital Development Reserve Account provided the defined projects to which they are committed are in line with the Institute's Capital Development plan, have been approved by the Governing Body and are time phased and with estimates of costs.

2. Critical Accounting Judgements and Key Sources of Estimation

In the application of the Institute's accounting policies, which are described in Note 1, the Governing Authority are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical Judgements in Applying the Institute's Accounting Policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the Governing Body has made in the process of applying the Institute's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

a) Retirement Benefit Obligation

The assumptions underlying the actuarial valuations for which the amounts recognised in the financial statements are determined (including discount rates, rates of increase in future compensation levels, mortality rates and healthcare cost trend rates) are updated annually based on current economic conditions, and for any relevant changes to the terms and conditions of the pension and post-retirement plans.

The assumptions can be affected by:

- (i) The discount rate, changes in the rate of return on high-quality corporate bonds
- (ii) Future compensation levels, future labour market conditions
- (iii) Health-care cost trend rates, the rate of medical cost inflation in the relevant regions

b) Holiday Pay

The holiday pay accrual is calculated by reference to the days holidays outstanding at the year end. Academic staff do not require an accrual at year end due to the nature of their contract.

c) Property, Plant and Equipment

Depreciation is calculated based on estimates and assumptions on the useful economic life and expected residual value of the asset.

3. State Grants

	Allocated for Recurrent Expenditure €000's	Allocated for Capital Expenditure €000's	2017 Total €000's	2016 Total €000's
Recurrent Expenditure - HEA	41,028	1,388	42,416	38,866
Capital Grant - HEA	320	580	900	900
Total 2017	41,348	1,968	43,316	39,766
Total 2016	38,456	1,310	39,766	

4. Tuition Fees and Student Contribution

	2017				2016			
	Students WTE	State Funded	Non State Funded	Total €000's	Students WTE	State Funded Restated	Non State Funded	Total €000's
Fees paid by State	6,853	5,330	-	5,330	6,531	5,150	-	5,150
Non EU Fees	77	-	519	519	176	-	1,396	1,396
Fees paid by students or on behalf of Students	908	636	1,656	2,292	990	618	1,940	2,558
Life Long Learning & other fees	1,605	85	4,921	5,006	1,680	91	4,292	4,383
Student Contribution inc repeat exam fees	-	10,711	11,644	22,355	-	10,733	10,671	21,404
	9,443	16,762	18,740	35,502	9,377	16,592	18,299	34,891
Capital items charged to Life Long Learning		-	-	-		-	(29)	(29)
Transfer to Capital Development Reserve		-	-	(1,876)		-	-	(3)
Student Numbers/Net Fee Income	9,443	16,762	18,740	33,626	9,377	16,592	18,270	34,859

The Higher Education Authority paid tuition fees in the year of €3.924m for full-time Degree courses, and €750k for Higher Certificate and Ordinary Degree courses and €656k for Springboard/ICT Skills, the total costs of which are part funded by the European Social Fund. SUSI paid fees in the year of €10.108m in 2017 (€9.852m in 2016).

Student numbers are stated as whole time equivalents based on enrolled credits.

Capital Items of €0k (2016 €29k) have been charged against Life Long Learning.

5. Research Grants and Contracts

	2017 Total €000's	2016 Total €000's
Income		
State HEA	382	484
State Other	6,239	6,231
European Union	2,663	4,238
Industry	798	763
Other	2,074	2,222
Dividend	215	97
Allocated to Capital	(111)	(781)
	<u>12,260</u>	<u>13,254</u>
Expenditure		
Pay Costs	6,239	6,342
Non Pay Costs	5,466	6,863
Depreciation Non State	66	-
	<u>11,771</u>	<u>13,205</u>
Net Outcome	489	49
Transfer from CDR to Expenditure	225	2
Surplus for the year	<u>714</u>	<u>51</u>

Included in the Research Grant and Contract Income is an amount of €965k in respect of overhead recovery. The balance represents direct costs recovered for research work undertaken. The HEA paid grants towards Research & Development of €583k in 2017 (€2.113m in 2016).

6. Analysis of State Derived Income

Name of Grantor	Op Deferral 01/09/16 €000's	Grant received €000's	CL Deferral 31/08/17 €000's	I&E 2017
Note 3 - State Grant				
HEA	508	43,848	(1,882)	42,474
Allocated for Capital Expenditure	-	-	-	(1,388)
State Income	<u>508</u>	<u>43,848</u>	<u>(1,882)</u>	<u>41,086</u>
Note 4 - Tuition Fees and Student Contribution				
HEA	-	5,330	-	5,330
Failte Ireland	-	365	-	365
Dept. of Education & Skills	-	9	-	9
State – Other	-	954	-	954
SUSI	-	10,108	-	10,108
Tuition fees and student contribution	<u>-</u>	<u>16,766</u>	<u>-</u>	<u>16,766</u>

6. Analysis of State Derived Income (*continued*)

Name of Grantor	Op Deferral 01/09/16 €000's	Grant received €000's	CL Deferral 31/08/17 €000's	I&E 2017
Note 5 - Research Grants & Contracts				
Bord Iascaigh Mhara	10	14	4	28
Cork County Council	3	28	20	51
Irish Coastguard	8	39	(17)	30
Cork City Council	1	42	-	43
Department of Agriculture & Food	102	439	(323)	218
Department of Foreign Affairs	2	-	-	2
Department of Education & Skills	(25)	121	20	116
Enterprise Ireland	224	2,925	(460)	2,689
Environmental Protection Agency	141	917	(332)	726
Electricity Supply Board	199	4	(101)	102
Fáilte Ireland	-	162	-	162
Higher Education Authority	(167)	583	(33)	383
Health Services Executive	17	-	(5)	12
Irish Research Council	39	180	(70)	149
Leargas	(17)	67	(3)	47
Marine Institute	24	26	(21)	29
University College Cork	(61)	104	13	56
Waterford City Fire Service	2	-	-	2
National Transport Authority	-	30	(5)	25
National Forum for Teaching & Learning	57	21	(11)	67
National Centre for Excellence in Mathematics & Science Teaching & Learning	(4)	23	(18)	1
National Disability Authority	1	-	(1)	-
Quality and Qualifications Ireland	5	20	(20)	5
Sustainable Energy Ireland	-	-	49	49
Science Foundation Ireland	438	956	(239)	1,155
Teagasc	37	152	26	215
Technological Higher Education Association	(98)	134	21	57
University College Dublin	6	23	27	56
University of Limerick	4	9	27	40
Institutes of Technology – Other	11	-	95	106
Tyndall	-	22	(22)	-
Research Grants & Contracts	959	7,041	(1,379)	6,621

6. Analysis of State Derived Income (continued)

Name of Grantor	Op Deferral 01/09/16 €000's	Grant received €000's	CL Deferral 31/08/17 €000's	I&E 2017
Note 7 - Student Support Funding				
HEA	86	549	(71)	564
Allocated for Capital Expenditure	-	-	-	(15)
Student Support Funding	86	549	(71)	549

7. Student Support Funding

	Disabilities €000's	2017 Student Assistance €000's	Total €000's	2016 Total €000's
Balance at 1 September	18	68	86	57
Receipts;				
Higher Education Authority	243	306	549	541
Amounts Applied;				
Pay Costs	79	-	79	81
Non Pay Costs	166	304	470	405
Total Expenditure	245	304	549	486
Equipment	15	-	15	26
Balance at 31 August	1	70	71	86

Funding is provided by the Higher Education Authority under the National Development Plan and is part funded by the European Social Fund.

8. Other Income

	2017 Total €000's	2016 Total €000's
Superannuation deductions retained	3,572	3,407
Rental of Facilities	5	24
Sundry Income	456	54
Student Services Company Limited	3,824	3,351
	<u>7,857</u>	<u>6,836</u>
Transfer to CDR	(133)	-
Net Outcome	7,724	6,836

The income from the CIT Student Services Company Limited is generated from the provision of a mini market, bistro, shop and canteen services to the students of CIT.

9. Staff Costs

The average number of persons (including senior post-holders) employed by the Institute during the year, expressed in full time equivalent is:

	2017 No. of employees	2016 No. of employees
Teaching and research	682	658
Technical	131	132
Central administration and services	210	206
	<u>1,023</u>	<u>996</u>

	2017 €000's	2016 €000's Restated
Salaries and wages	61,270	61,295
Social welfare costs	5,395	5,115
Employer welfare costs	118	128
Subsidiaries	1,926	1,746
	<u>68,709</u>	<u>68,284</u>

Key Management Compensation

The total remuneration for key management personnel for the year totalled €92,694 (2016: €172,830). Key management personnel in the Institute consist of the President and members of the Governing Body. The total amount paid to the President for the year was €67,719 for remuneration (2016: €146,034 for remuneration). The President retired on 31 August 2016 and was re-appointed from 1 September 2016 to 31 August 2017.

Higher Paid Staff

The Institute has adopted a starting value of €60,000 to identify higher paid staff. Staff remuneration, in salary bands of €10,000, using €60,000 as the starting value, is as follows:

Salary Bands	Consolidated Year Ended 31 August 2017	Institute Only Year Ended 31 August 2017	Consolidated Year Ended 31 August 2016
60,000 - 70,000	132	131	156
70,001 - 80,000	126	125	188
80,001 - 90,000	160	160	68
90,001 - 100,000	36	36	32
100,001 - 110,000	3	3	4
110001 - 120,000	-	-	-
120,001 - 130,000	-	-	-
130,001 - 140,000	-	-	-
140,001 - 150,000	-	-	2
> 150,000	-	-	-
Grand Total	<u>457</u>	<u>455</u>	<u>450</u>

The overall figure for employer pension contribution in the year was €117k.

10. Operating Expenses

	2017			2016	
	Pay Costs €000's	Depreciation €000's	Other Operating Expenses €000's	Total €000's	Total €000's
Academic Departments	49,264	936	4,316	54,516	54,295
Academic Services	2,092	357	1,127	3,576	3,347
Facilities	1,346	1,439	4,644	7,429	7,837
Central Admin	6,902	1,519	3,713	12,134	11,365
General Education	377	-	381	758	1,058
Student Services	2,410	279	3,925	6,614	6,189
Student Support Funding	79	-	470	549	486
Research Grants & Contracts	6,239	1,360	5,466	13,065	14,544
Total Expenditure	68,709	5,890	24,042	98,641	99,121
Total 2016	68,284	6,037	24,800	99,121	

Analysis of Other Operating Expenditure

	Consolidated 2017 €000's	Consolidated 2016 €000's
Materials & other Consumables	5,004	4,306
Library Materials	233	232
Computer Costs	1,236	1,025
General Education	2,256	2,337
Services to Students	851	1,877
Project Partners	956	2,406
Equipment	1,021	1,026
Premises Costs	5,583	5,574
Travel & Subsistence/Hospitality & Seminars	1,805	1,402
Personnel Costs	1,246	1,242
Professional Fees	1,346	1,731
Auditors Remuneration	35	36
Communications	207	264
Stationery & Office Materials	641	577
General Advertising & Publicity	561	493
Insurance	374	367
Movement in Bad Debt Provision	501	(286)
Finance Costs	118	137
Loss on Asset Disposal	2	1
Other	66	53
	24,042	24,800

Other Operating Expenses include:

	2017 €000's	2016 €000's
Auditors Remuneration;		
Audit of Institute by the C&AG	35	36
Internal Audit Services provided by a 3 rd Party	23	5
External Audit of Subsidiaries	15	15
Internal Audit of Subsidiaries provided by a 3 rd Party	9	9
	<u>82</u>	<u>65</u>

11. Taxation

Cork Institute of Technology and all its Subsidiaries with the exception of CIT Innovation Centre DAC are exempt from Corporation Tax under a charitable status order.

CIT Innovation Centre DAC has a liability of €6k for Corporation Tax for the year.

12. Financial Result for the Year

The surplus/(deficit) for the year on continuing operations is made up as follows:

	2017 €000's	2016 €000's
Institute surplus/(deficit) for the year	4,431	657
Surplus generated by subsidiaries and other undertakings	94	64
	<u>4,525</u>	<u>721</u>

13. Property, Plant and Equipment

Consolidated

	Land & buildings €000's	Fixtures & fittings €000's	Computer equipment €000's	Plant & machinery €000's	Furniture & equipment €000's	Motor Vehicles €000's	Total €000's
Cost							
At 1 September 2016	146,487	10,880	12,601	6,633	19,691	383	196,675
Additions in year	1,402	86	806	29	501	-	2,824
Disposals in year	-	(32)	(1,058)	(141)	(960)	(21)	(2,212)
At 31 August 2017	147,889	10,934	12,349	6,521	19,232	362	197,287
Depreciation							
At 1 September 2016	50,200	9,245	11,894	4,297	18,088	364	94,088
Charge for year	3,614	483	496	539	750	8	5,890
Eliminated on disposals	-	(32)	(1,062)	(141)	(953)	(21)	(2,209)
At 31 August 2017	53,814	9,696	11,328	4,695	17,885	351	97,769
Net book value							
At 31 August 2017	94,075	1,238	1,021	1,826	1,347	11	99,518
At 1 September 2016	96,287	1,635	707	2,336	1,603	19	102,587

Lease commitments at 31 August 2017 amounted to €563k (2016 - €559k).

The Institute holds and maintains a historical building that houses the Crawford College of Art and Design. As this is used for operational purposes, it is accounted for as a fixed asset, rather than a heritage asset.

The Institute maintains a Visual Art Collection to enhance the teaching environment but this is not considered a heritage asset.

13. Property, Plant and Equipment (continued) – in respect prior year**Consolidated**

	Land & buildings	Fixtures & fittings	Computer equipment	Plant & machinery	Furniture & equipment	Motor Vehicles	Total
	€000's	€000's	€000's	€000's	€000's	€000's	€000's
Cost							
At 1 September 2015	144,476	10,568	12,767	6,530	18,988	371	193,700
Additions in year	2,127	446	520	103	840	12	4,048
Disposals in year	(116)	(134)	(686)	-	(137)	-	(1,073)
At 31 August 2016	146,487	10,880	12,601	6,633	19,691	383	196,675
Depreciation							
At 1 September 2015	46,515	8,728	12,178	3,762	17,588	353	89,124
Charge for year	3,801	651	402	535	637	11	6,037
Eliminated on disposals	(116)	(134)	(686)	-	(137)	-	(1,073)
At 31 August 2016	50,200	9,245	11,894	4,297	18,088	364	94,088
Net book value							
At 31 August 2016	96,287	1,635	707	2,336	1,603	19	102,587
At 1 September 2015	97,961	1,840	589	2,768	1,400	18	104,576

Lease commitments at 31 August 2016 amounted to €559k (2015 - €317k).

The Institute holds and maintains a historical building that houses the Crawford College of Art and Design. As this is used for operational purposes, it is accounted for as a fixed asset, rather than a heritage asset.

The Institute maintains a Visual Art Collection to enhance the teaching environment but this is not considered a heritage asset.

13. Property, Plant and Equipment (continued)**Institute Only**

	Land & buildings €000's	Fixtures & fittings €000's	Computer equipment €000's	Plant & machinery €000's	Furniture & equipment €000's	Motor Vehicles €000's	Total €000's
Cost							
At 1 September 2016	146,482	9,329	12,464	6,632	19,551	384	194,842
Additions in year	1,402	86	774	29	380	-	2,671
Disposals in year	-	(32)	(1,059)	(141)	(950)	(21)	(2,203)
At 31 August 2017	147,884	9,383	12,179	6,520	18,981	363	195,310
Depreciation							
At 1 September 2016	50,199	8,224	11,827	4,296	17,975	365	92,886
Charge for year	3,614	481	484	539	567	8	5,693
Eliminated on disposals	-	(32)	(1,062)	(141)	(944)	(21)	(2,200)
At 31 August 2017	53,813	8,673	11,249	4,694	17,598	352	96,379
Net book value							
At 31 August 2017	94,071	710	930	1,826	1,383	11	98,931
At 1 September 2016	96,283	1,105	637	2,336	1,576	19	101,956

Lease commitments at 31 August 2017 amounted to €563k (2016 - €559k).

The Institute holds and maintains a historical building that houses the Crawford College of Art and Design. As this is used for operational purposes, it is accounted for as a fixed asset, rather than a heritage asset.

The Institute maintains a Visual Art Collection to enhance the teaching environment but this is not considered a heritage asset.

13. Property, Plant and Equipment (continued) – in respect prior year**Institute Only**

	Land & buildings €000's	Fixtures & fittings €000's	Computer equipment €000's	Plant & machinery €000's	Furniture & equipment €000's	Motor Vehicles €000's	Total €000's
Cost							
At 1 September 2015	144,355	9,200	12,699	6,529	18,852	372	192,007
Additions in year	2,127	137	451	103	836	12	3,666
Disposals in year	-	(8)	(686)	-	(137)	-	(831)
At 31 August 2016	146,482	9,329	12,464	6,632	19,551	384	194,842
Depreciation							
At 1 September 2015	46,414	7,740	12,114	3,762	17,494	354	87,878
Charge for year	3,785	492	399	534	618	11	5,839
Eliminated on disposals	-	(8)	(686)	-	(137)	-	(831)
At 31 August 2016	50,199	8,224	11,827	4,296	17,975	365	92,886
Net book value							
At 31 August 2016	96,283	1,105	637	2,336	1,576	19	101,956
At 1 September 2015	97,941	1,460	585	2,767	1,358	18	104,129

Lease commitments at 31 August 2016 amounted to €559k (2015 - €269k).

The Institute holds and maintains a historical building that houses the Crawford College of Art and Design. As this is used for operational purposes, it is accounted for as a fixed asset, rather than a heritage asset.

The Institute maintains a Visual Art Collection to enhance the teaching environment but this is not considered a heritage asset.

14. Subsidiary Undertakings and Investments

The Institute holds an interest in the following subsidiaries and joint ventures:

Subsidiary Undertakings

CIT Student Services Company Limited was incorporated by the Institute in 1994 for the purpose of provision of shop and canteen services to students. It is a company limited by guarantee and not having share capital.

	2017	2016
	€000's	€000's
Profit for the financial year	62	37
Net Assets	1,356	1,294

CIT Innovation Centre DAC, t/a The Rubicon, was established in August 2004 and is the on campus incubation centre for the Institute. The company is a wholly owned subsidiary.

	2017	2016
	€000's	€000's
Profit for the financial year	44	33
Net Assets	91	47

CIT Foundation Limited was established by the Institute in July 2007 to raise funds and receive donations. It is a company limited by guarantee and not having share capital.

	2017	2016
	€000's	€000's
Profit/(Loss) for the financial year	(8)	5
Net Assets	311	319

Cosmos Education Limited was established by the Institute in January 2008 for the purpose of delivering educational, research and training services through the operation of a scientific, educational and cultural exhibition in Blackrock Castle Observatory Cork. It is a company limited by guarantee and not having share capital.

	2017	2016
	€000's	€000's
Profit/(Loss) for the financial year	(7)	3
Net Assets	(1)	6

14. Subsidiary Undertakings and Investments (continued)

CIT Infinite DAC was established by the Institute in December 2015 to manage CIT's interest in a horizontal Internet of Things testbed called INFINITE. The company is a wholly owned subsidiary. The company did not trade in the financial period.

Joint Ventures

GAC Training and Service Solutions Limited (GTSS) was established in February 2010 and is in the business of commercial training in the maritime areas of oil, gas, chemicals and traded commodities. CIT's investment comprises 25,000 shares and this represents a 50% shareholding with GAC Shipping UK Limited who hold the other 50% shareholding.

Seftec NMCI Offshore Training Limited (SNO) was established in February 2010 and is in the business of providing courses and consultancy to the offshore and maritime industry both in Ireland and abroad. CIT's investment comprises 25,000 shares and this represents a 50% shareholding with SEFTec Global Training Ireland Limited who hold the other 50% shareholding.

The Institute holds minority shareholdings in a number of campus companies. The carrying value of such investments in the Institute financial statements are €373.84.

Investments

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Investments held are as follows:				
At 1 September	216	220	50	50
Disposal	-	-	-	-
Movement of investments	1	(4)	-	-
At 31 August	217	216	50	50

15. Receivables

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Trade Receivables	1,226	740	749	666
Research grants and contracts receivable	3,044	2,905	2,969	2,700
State Grant receivable	500	314	500	314
Academic fees receivable	2,585	765	2,585	765
Prepayments	452	379	452	379
Other receivables	159	302	104	257
Elimination of Inter Co receivables	(93)	(191)	-	-
	7,873	5,214	7,359	5,081

16. Cash and Cash Equivalents

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Cash at bank including balances held on short term deposit	16,946	9,931	16,188	8,965
Restricted bank balances	5,000	4,000	5,000	4,000
	21,946	13,931	21,188	12,965

17. Payables: amounts falling due within one year

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Trade payables	138	91	71	37
Research grants and contracts in advance	6,777	5,143	6,568	4,802
Fees received in advance	1,595	535	1,595	535
State grants received in advance	1,942	822	1,942	822
Accruals	8,266	6,268	8,170	6,186
Leases (Note 19)	3	85	3	85
Other tax and social security in advance	1,873	1,747	1,810	1,712
Other payables in advance	230	133	230	133
Elimination of Inter Co payables	(93)	(191)	-	-
Total Creditors	20,731	14,633	20,389	14,312

18. Payables: amounts falling due after more than one year

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Other lease obligations (Note 19)	-	3	-	3
	-	3	-	3

19. Lease Commitments

	Land & Buildings 2017 €000's	Land & Buildings 2016 €000's	Other 2017 €000's	Other 2016 €000's
Operating Leases				
Total future minimum lease payments under non-cancellable operating leases are as follows:				
Within 1 Year	225	203	3	85
Between 2 & 5 Years	338	356	-	3
Finance Lease				
Greater than 5 years	-	-	-	-
Total Commitments	563	559	3	88

The Institute entered into a 3 year, interest free, lease to replace its existing IT Firewall. The lease expires in September 2016.

The Institute has five properties leased two of which will expire on 31 August 19 and the remaining on 30 November 2021, 31 January 2018 and 6 March 2020.

20. Deferred Capital Grants

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
At 1 September				
Opening Balance	101,548	103,802	101,483	103,723
Cash received in year				
Allocated from State recurrent grant	1,388	674	1,388	674
State Grant for Minor Capital works - DOES	580	636	580	635
Research Grants & Contracts	111	781	80	755
Tuition Fees - Self funding	-	29	-	29
Student Support	15	26	15	26
Funded from Capital Development Reserve	219	1,485	219	1,485
Total	2,313	3,631	2,282	3,604
Amortised to Income and expenditure in year				
Amortised in line with depreciation	(5,593)	(5,844)	(5,594)	(5,843)
Subsidiary company fixed assets - depreciation	(32)	(40)	-	-
Amount released on disposal of Fixed Assets	(3)	(1)	(3)	(1)
Release of Restricted Capital Funds	-	-	-	-
Total	(5,628)	(5,885)	(5,597)	(5,844)
At 31 August				
Closing Balance	98,233	101,548	98,168	101,483

21. Provisions for Liabilities and Charges

	2017 €000's	2016 €000's
Consolidated and Institute		
At 1 September	287	573
Provided during year	501	(286)
	<u>788</u>	<u>287</u>

22. Capital Development Reserve

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Opening Balance	4,812	6,270	4,812	6,270
Interest earned	11	27	11	27
Transfer from Student Development	1,876	3	1,009	3
Transfer from Other Income	133	-	1,000	-
Transfer from Recurrent Grant	967	-	967	-
Transfer to Expenditure	(225)	(3)	(225)	(3)
Capital Projects – State	(219)	(1,485)	(219)	(1,485)
Capital Projects – Non State	(122)	-	(122)	-
Closing Balance	<u>7,233</u>	<u>4,812</u>	<u>7,233</u>	<u>4,812</u>

Capital Reserve - Student Services Co Ltd

These funds were received previously following the closure of Trusts. This reserve is designated for future capital developments to benefit student welfare.

23. Capital Commitments

	Consolidated		Institute	
	2017 €000's	2016 €000's	2017 €000's	2016 €000's
Contracted for but not provided	-	-	-	-
Authorised but not contracted	3,564	3,500	3,564	3,500
	<u>3,564</u>	<u>3,500</u>	<u>3,564</u>	<u>3,500</u>

24. Related Parties

In the normal course of business, the Institute may enter into contractual arrangements with undertakings in which the Institute's Governing Body members are employed or otherwise interested. The Institute has adopted procedures in accordance with the Code of Governance of Irish Institutes of Technology in relation to the disclosure of interests by members of the Board and the Institute has complied with these procedures during the year.

25. Contingent Liabilities

There were no contingent liabilities existing at 31 August 2017.

26. Post Balance Sheet Events

There were no significant events since the balance sheet date which could have implications for these financial statements.

27. Proposed Merger with IT Tralee

Cork Institute of Technology (CIT) and IT Tralee together are currently undertaking a process to become a technological university. We, the Munster Technological University (MTU) partners, have two objectives: firstly, to merge to form a single unified institution with a distinct and distinctive mission/vision and, secondly, be designated as a Technological University with all that this designation implies in terms of being innovative, entrepreneurial and responsive to the needs of sectoral stakeholders.

We have now successfully completed Stage 3 of the Technological University designation process. This included the development of a business case which outlined the underlying assumptions. Included in these assumptions is projected merger costs of €6.7 million over 3 years to cover one-off costs such as professional fees, IT systems and communications. The costs associated with this project included in the accounts for the year-ended 31 August 2017 amount to €527k.

As the Technological Universities Act 2018 has come into law, the MTU partners intend on making a submission for Technological University Designation before the end of 2018. The plan is to achieve designation, merge with IT Tralee and form the Munster Technological University by September 2019.

28. Retirement Benefit Costs

(i) Staffing

New entrant staff, employed by the Institute after 1 January 2013 are members of the Single Public Service Pension Scheme in accordance with Public Sector Pensions (Single Scheme and Other Provisions) Acts 2012. Deductions from staff salaries under the Single Scheme are transferred to the Department of Public Expenditure and Reform on a monthly basis in accordance with the act.

(ii) Description of Scheme

Retirement benefit obligations are accounted for the first time in the 2016/2017 financial statements. The opening position at 1 September 2016 has been estimated by the actuary, based on market conditions at that time.

Institute Scheme

The pension scheme is a defined benefit final salary pension arrangement with benefits and contributions defined by reference to current "model" public sector scheme regulations. The scheme provides a pension (one eightieth per year of service), a gratuity or lump sum (three eightieths per year of service) and spouse's and children's pensions. Normal Retirement Age is a member's 65th birthday, and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. Pensions in payment (and deferment) normally increase in line with general public sector salary inflation.

Single Scheme

The Single Scheme is the occupational pension scheme for new-entrant public servants hired since 1 January 2013. It is a defined benefit scheme, with retirement benefits based on career-average pay. The scheme generates pension credits and retirement lump sum credits for each scheme member. These money credits, known as "referable amounts", accrue as percentages of pay on an ongoing basis. The referable amounts accrued each year are revalued annually until retirement in line with inflation increases (Consumer Price Index). The annual pension awarded on retirement is the cumulative total of a scheme member's pension referable amounts, and the retirement lump sum awarded is, similarly, the total of the scheme member's lump sum referable amounts.

Valuation

The valuation used for FRS 102 disclosures has been based on a full actuarial valuation by a qualified independent actuary taking account of the requirements of the FRS in order to assess the scheme liabilities at 31 August 2017. Former employees of the Institute who are in receipt of a pension have been excluded from the valuation.

The principal actuarial assumptions used to calculate the components of the defined benefit cost for the year ended 31 August 2017 were as follows:

	31 August 2017	31 August 2016
Discount rate	2.15%	1.85%
Inflation rate	1.75%	1.55%
Salary increases	3.25%	3.05%
Pension increases	2.75%	2.55%

The mortality basis adopted allows for improvements in life expectancy over time, so that life expectancy at retirement will depend on the year in which a member attains retirement age (age 65). The number of members in the Scheme and the number of deaths are too small to analyse and produce any meaningful Scheme-specific estimates of future levels of mortality. Average future life expectancy according to the mortality tables used to determine the pension liabilities are:

	31 August 2017 Years	31 August 2016 Years
Male aged 65	21.1 years	-
Female aged 65	23.8 years	-

(iii) Analysis of total retirement benefit costs charged to the Statement of Comprehensive Income

	31 August 2017 €'000	31 August 2016 €'000
Current service cost	21,533	-
Interest on retirement benefit scheme liabilities	6,445	-
Employee contributions/(benefits paid)	(3,574)	-
	24,404	-

(iv) Movement in net retirement benefit obligations during the financial year

	31 August 2017 €'000	31 August 2016 €'000
Net retirement benefit obligation at 1 September	337,603	-
Net Current Service Costs	17,959	-
Employee Contributions	3,574	-
Interest costs	6,445	-
Benefits paid in period	-	-
Experience (loss)/gain on liabilities	-	-
Changes in actuarial assumptions	(10,474)	-
	355,107	337,603
Split between		
SPSPS	2,300	-
ESS	352,807	-

(v) Deferred funding asset for retirement benefits

The Institute is prescribed in S.I. No 581 of 2012 as a relevant authority for the purposes of the single scheme. It is the Institute's opinion (in accordance with Section 44 of the 2012 Act) that any liability in respect of the Single Scheme would be offset by an equivalent asset in respect of future state funding.

The Institute recognises amounts owing from the State for the unfunded deferred liability for retirement benefits relating to the Education Sector Superannuation Scheme 2015 on the basis of the set of assumptions described above and a number of past events. These events include the statutory basis for the establishment of the retirement benefit scheme, and the policy and practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. The Institute has no evidence that this funding policy will not continue to meet such sums in accordance with current practice.

The net deferred funding for retirement benefits recognised in the Statement of Comprehensive Income was as follows:

	31 August 2017 €'000	31 August 2016 €'000
Funding recoverable in respect of current year retirement		
Benefit costs	24,404	-
Benefits paid in year	-	-
	<u>24,404</u>	<u>-</u>

The deferred funding liabilities for retirement benefit as at 31 August 2017 amounted to €355,107,000.

(vi) History of defined benefits obligations

	2017 €'000
Defined benefit obligations	355,107
Experience losses/(gains) on defined benefit scheme liabilities	-

29. Approval of Financial Statements

The financial statements were approved by the Governing Authority on 13th December 2018.





ZERO 2020 TESTBED, CIT BISHOPSTOWN CAMPUS

7. Other Information

Cork Institute of Technology

- 7.1 News & Events**
- 7.2 Campus Development**
- 7.3 Safety & Facilities Management**
- 7.4 Contact Points**

7.1 News & Events

1. The Good Start Student Induction Programme commenced on 5 September 2016. Now in its fourth year, it is going from strength to strength. Good Start is a programme of social and academic activities designed to induct new incoming students to life and study at CIT. It is a high-vis, purposeful first six weeks programme with many themes that aim to ensure that incoming students feel supported, informed, welcomed, and that they matter. Feedback from students to-date has been very positive.
2. The President gave a Welcoming Address at the CERC 2016 Conference hosted by CIT BCO on 23 September 2016. The Collaborative European Conference (CERC) is the result of a long standing research collaboration between CIT and the Hochschule Darmstadt University of Applied Sciences. It includes new partners from the University of Hagen, Karlsruhe University of Applied Sciences, Forschungsinstitut für Telekommunikation and Kooperation, University of Edinburgh, University of Ulster, along with industry partners, NSilico Life Science, Ubitech, Globit and INMARK, and many more.
3. The annual CIT Careers & Employability Fair hosted by the Careers Service took place on 27 September 2016. The Fair supports students in exploring their options whether this is graduate employment, further study, volunteering, or travel.
4. The Faculty of Engineering & Science held its annual Roadshow series of events. Selecting engineering, science, technology or computing courses that best fits their abilities can be a daunting exercise for second-level students. In order to demystify the relevant areas and to provide guidance to students interested in studying at degree level, CIT has created this initiative to help ensure that students, their supporters, teachers, and guidance counsellors can explore their options in a friendly environment where they can engage with current students, graduates, and CIT lecturers.
5. The Institute hosted a fitting reception on 11 October 2016 to mark the outstanding achievement of Gary O'Donovan, who won an Olympic Silver Medal. Gary, along with his brother Paul participated in the lightweight men's double sculls at the Rio de Janeiro 2016 Olympic Games on 12 August 2016. It was indeed a nail biting contest for the Skibbereen brothers who were triumphant in getting across the finishing line. Gary is a CIT Marketing Year 4 student.
6. The annual NMCI Open Day took place on 20 October 2016. The event attracted a very significant number of attendees and provided prospective students and their supporters with a wonderful opportunity to engage with NMCI staff members, industry representatives, and a wide range of organisations involved in the maritime industry.
7. Former student of CIT CSM, Mairéad Hickey was awarded under Category 3 – 3rd prize worth €1,500 as well as the €500 prize for best interpretation of a virtuoso work from a field of several hundred competitors at the 8th International Louis Spohr Violin Competition. This competition took place in Weimar, Germany and ran from 28 October – 8 November 2016.

Mairéad studied violin in CIT CSM for ten years with renowned teacher Adrian Petcu and is now continuing her studies at the prestigious Kronberg Academy, Berlin.

8. As part of a Multi-Campus Health promotion initiative, the Department of Tourism & Hospitality launched “A Healthy CIT” on 2 November 2016.
9. The Students' Union ran a Mental Health Awareness campaign in the Institute from 8 – 10 November 2016. The aim of the campaign was to provide students with information on the mental health support services available both internal and external to CIT.
10. The President and Vice President for External Affairs welcomed the following delegates from Chongqing Industry Polytechnic College, China to the Institute on 9 November 2016.
 - (i) XuYi, Vice President
 - (ii) Bian Lintao, Head of Architecture and Environmental Engineering
 - (iii) Wan AiaoMing, Lecturer in Information Engineering
 - (iv) LiYing, International Office

The visit was a follow on from the signing of an MOU with Chongqing in October 2016. The delegates were given a presentation on CIT by Ms Niamh Lynes, International Office Coordinator and they met with Ms Katherine Keane, Head of Department of Architecture, and Dr Daniel Cahill, Head of Department of Construction. Possible areas of collaboration include visiting scholars and student exchange.

11. With the assistance of Cork City Council, a delegation from the Shanghai Municipal People's Government visited Cork on 11 November 2016. The delegation leader expressed a desire to deepen education links between the two cities. The President, Vice President for External Affairs and the Head of CIT International Office welcomed the delegation to CIT on 11 November. They later met with the Deputy Lord Mayor and visited UCC.
12. The Institute participated in the "Ireland Education and Culture Exchange" tour by hosting a delegation from High School Principals from Hong Kong on 11 November 2016. The Hong Kong Education delegation were visiting Ireland with a view to building up an understanding and making connections with Irish education stakeholders.
13. A delegation of 15 senior post holders from Higher Vocational Colleges in China visited Ireland from 5 to 18 November 2016. The purpose of their visit to Ireland was to learn how the IOT sector operates. This was in the context of falling graduate employment rates from the universities and the Chinese Government began to look to the Fachhochschulen in Germany and to the IOTs in Ireland. Some training was based in DIT but they also spent time in CIT from 11 – 17 November 2016. CIT was asked to provide training on a range of topics including entrepreneurship, research & innovation, tech transfer & commercialisation, incubation supports, engagement with industry/business, and student engagement.
14. On 23 November 2016, CIT hosted and sponsored The Independent Advocacy Gathering. It was attended by over 100 people, including some former CIT students from the COPE/CIT Advocacy certificate courses.
15. On 29 November 2016, the Cork Chamber organised an event titled "Innovation through Collaboration". This was aimed at business and companies to explore the knowledge that exists in research Institutes and how that can significantly improve the competitiveness of their businesses. The Enterprise Europe Network (EEN), together with two of CIT's research centres, CAPP and TEC showcased how companies can innovate through collaboration with them.
16. The Department of Tourism & Hospitality held the third in its series of Tourism, Hospitality & Culinary Roadshows on 29 November 2016. Designed to inform second-level school students and their parents/guardians about the opportunities and training available in the areas of Tourism, Hospitality, Culinary, Hotels, Events, Catering, Restaurant, and Bar Management.
17. The President and Chairman attended the launch of the Louis O'Halloran Scholarship Award on 5 December 2016 in the Nimbus Research Centre. The Award derives from a very generous endowment made to the Department of Electrical & Electronic Engineering by Mr Robert Short, an Electronics graduate from the Crawford Municipal Technical Institute (now CIT) back in 1973, who subsequently became a Corporate Vice President at Microsoft. The Award will be made to the winner of a student competition and the winner will also receive a perpetual trophy generously donated by the O'Halloran family. Louis was a Senior Lecturer in the Department of Electrical & Electronic Engineering.
18. The President welcomed Mr Michael Creed, TD, Minister for Agriculture, Food and the Marine to the Institute, who had accepted an invitation from the Institute to launch the Certificate in Brewing and Distilling Operations on 13 January 2017. This programme will provide candidates with the scientific and engineering background to work in craft and traditional breweries and distilleries. CIT is the only HEI in Munster providing such training.
19. CIT hosted a Transition Year (TY) STEM Campus Week for female students from 16 to 20 January 2017 as part of the IWISH 2017 programme. The Campus Week featured an interactive 5-day hands-on programme that engaged students in science, technology, engineering and mathematics (STEM) disciplines via applied and practical workshops, site visits and demonstrations. They also gained insights into the daily lives of STEM professionals, experienced STEM applications in industry, and interacted with STEM academics and current undergraduates.
20. The Institute of Guidance Counsellors National Conference 2017 was officially launched in the Bishopstown Campus by the President on 20 January 2017.
21. The President welcomed delegates to the Chaplain's Network @ Third Level (CN3) Annual Conference which took place in CIT from 25 – 27 January 2017. Participant's attending this year's conference included UCD, TCD, DCU, DIT, NUI Maynooth, Ulster University, NUIG, GMIT, IT Sligo, UL, WIT, UCC, and CIT.
22. As part of their visit to the Irish Naval Service base and headquarters, Haulbowline, the Finnish Ambassador to Ireland, H.E. Mrs Jaana Teckenbert and the Chief of the Finnish Navy, Radm Veijo Taipalus visited the NMCI on 2 February 2017, and were given a tour of its facilities.
23. OrthoXel, a Rubicon Centre based company was awarded the title of "Cork Emerging Company of the Year" at the Cork Chamber Annual Dinner on 3 February 2017. The Company is a medical device company focussed on the development and commercialisation of novel orthopaedic trauma devices which were researched and developed in the MEDIC Centre in CIT.

24. The President gave a Welcome Address to all present, which included members of the Institute's local community, at the Raise and Give 2017 Charity Coffee Morning held in the Institute on 6 February 2017. RAG Week ran from 6 – 10 February 2017. The RAG campaign is the single biggest fundraising event in which students, staff and local residents participate in annually. The key objective of RAG Week is to raise funds for charities. The main beneficiary this year was Cork City Hospitals Children's Club.
25. The signing of a Collaborative Agreement between CIT, The Tavistock and Portman NHS Foundation Trust, and The Bessborough Centre took place in CIT on 15 February 2017. The parties have been in discussions concerning the provision of the Certificate in Advanced Clinical Practice with Children and Families (Special Purpose Awards, Level 9).
26. The President gave a Welcome Address at the Safe Hands Conference, in partnership with the North Cork Domestic Violence Project "You are not Alone" (YANA) which took place in CIT on 16 February 2017. YANA's partnership with CIT has grown from collaborative work on an EU project in the Hincks Centre for Entrepreneurship Excellence.
27. Upwards of 1,200 final year and other students attended the Annual Postgraduate Fair which took place in CIT on 21 February 2017. The event was designed to help create an awareness of the wide choice of Doctoral and Masters programmes available to students at CIT and other HEIs.
28. The CIT Alumni Association and CIT Alumni Office hosted the third Gradfest on 23 February 2017. Its aim was to ensure that students are aware that their relationship with CIT does not end when they graduate and to encourage them to look ahead to becoming CIT Alumni.
29. An agreement has been reached with the Arup Trust for the provision of a scholarship for students entering the BEng (Hons) in Structural Engineering programme. The scholarship will be awarded to a first year student who registers on the programme in 2017/18 and it is intended that this scholar will receive an award for each of the four years of the programme. It is further intended at this time to offer similar scholarships to a first year student in 2018/19 and beyond. The provision of this scholarship is a significant development and one worthy of a programme which has provided high quality graduates to the profession since the first cohort of graduates in 1998.
30. An Innovation Voucher information event took place on 23 February 2017. The Innovation Voucher programme is an Enterprise Ireland funded programme. The initiative was developed to build links between Ireland's HEIs and small businesses. Companies apply for vouchers worth €5,000 and these are then used by companies to explore a business opportunity with a knowledge provider. The voucher initiative is open to all small and medium-sized limited companies registered in Ireland.
31. CIT Innovation Week 2017 took place from 6 – 10 March 2017. This annual event, which is now in its 6th year, saw a week-long series of events and activities promoting entrepreneurship and innovation across CIT's five campus locations. The schedule included a wide range of seminars, exhibitions, workshops and demonstrations. This year's event also hosted a Women in Business networking event. The highlight of the week was the Local Enterprise Offices (Cork) CIT Prize for Innovation Competition 2017 which awarded €10,000 in cash prizes and a €3,000 Nimbus Research Centre Development Prize to those whose inventions and business ideas were judged most creative, novel, innovative, and likely to succeed in the workplace.
32. As part of the CIT CCAD Visiting Lecture Series, Senator Ivana Bacik gave a lecture "Why the Law Matters" on 10 March 2017. Ms Bacik has been a staunch supporter of Equality rights, Education, and Arts & Culture in Ireland throughout her career.
33. CIT Transition Year Experience Day took place on 21 March 2017. Over 2,000 Transition Year students attended on the day and the event was very successful and the feedback from participants was extremely positive. Students received a general CIT Presentation and also had an opportunity to avail of a Campus Tour of CIT.
34. A talk by visiting researcher, Dr Rob Brown, Ocean Safety Research Unit, Marine Institute at Memorial University, St Johns Newfoundland, took place on 23 March 2017 at NMCI. Dr Brown's talk was titled "Cold and Exposed; Engineering and Human Factors Research to Improve Evacuation, Survival and Rescue at Sea."

Dr Brown is currently a visiting researcher at the Halpin Centre for Research and Innovation at NMCI, a visit funded through the James M. Flaherty Research Scholarship from the Ireland Canada University Foundation, with the assistance of the Government of Canada/avec l'appui du gouvernement du Canada.

35. The Lord Mayor of Cork, Cllr Des Cahill officially opened CIT SciFest 2017 on 31 March 2017. This event, now celebrating 10 years in CIT, offers students from second-level schools around Cork the opportunity to showcase their scientific expertise. CIT's on-going commitment to SciFest was evident again this year with increased numbers of schools and

projects being exhibited. Over 300 students participated, either as individuals or in group projects, from 32 different schools in Cork city and county. Altogether there were 145 different projects exhibited, across the disciplines of Life Sciences, Physical Sciences, and Technology, and at three levels, Junior, Intermediate and Senior.

36. Over the past five years the Chaplaincy in CIT has promoted the development of cultural relations between students from Ireland and the array of international students who have come to study in CIT. Over the course of this academic year they celebrated the food, song and diversity of cultures from Holland, Ireland, Malaysia, Germany, and Spain.
37. The CIT CAO Information Evening took place on 4 May 2017 in Bishopstown Campus. This event was targeted at Leaving Certificate students who have applied for courses at CIT, and also students who may be contemplating “change of mind” options.
38. CIT and Hincks Centre hosted the 3e ECSB Entrepreneurship Education Campus from 10 to 12 May 2017. Approximately 120 delegates from Ireland, Europe, USA, Canada, South Africa, and Vietnam as well as the ECSB (European Council for Small Business & Entrepreneurship) gathered to debate and exchange their research and experiences of the major challenges and advances in entrepreneurship education. A total of 24 practitioner development workshops and 36 research papers were presented. The best of entrepreneurship education and research at CIT featured at the conference with six papers authored or co-authored by staff and research postgraduate students. To coincide with the Rubicon Centre’s 10 year celebrations, delegates took part in a showcase and panel discussion on educating and supporting future entrepreneurs.
39. As part of Asia Matters Summit Cork, Day 2 was held in CIT on 18 May 2017 which included a networking lunch with key address by H.E. Mrs Vijay Thakur Singh, Ambassador of India to Ireland. Also a speaker at the lunch was H.E. Ambassador Anizan Siti Hajjar Adnin, Ambassador of Malaysia to Ireland. In attendance was Ms. Siti Noralia Mustaza, Second Secretary of the Embassy of Malaysia. The President gave a welcoming address and participated at this event. The topic for discussion was “Building Win – Win Strategic Partnerships between Asia and Ireland – The Strategic Proposition of Regions and Cities in the Global Business Value Chain.”
40. The CIT Continuing Education Handbook 2017/18 was officially launched by Ms Ciara Wilson, President, Network Cork on 29 May 2017.
41. The President attended an MoU signing between the Port of Cork and the Philippines Port Authority (PPA) on 30 May 2017 at the Port of Cork. The purpose of the MoU is to build a partnership between the parties through the development and implementation of educational and training programmes in the fields of port, maritime and logistics, and to achieve mutual gains and benefits.

7.2 Campus Development 2016/2017

1. CIT ARENA



Description:

The CIT Arena multipurpose building is to be used for 3 main functions, namely; sports and fitness; arts and culture; academic/education. The proposed building is 3,350sqm incorporating a full 8 court sports hall; a full cardio/weights gym; changing facilities; and a number of multi-functional/project rooms.

Project Status:

Planning Permission, Fire Safety Certificate and Disability Access Certificate have been obtained. The project is currently on hold.

2. MELBOURN BUILDING REFURBISHMENT – PHASE 5,6, 7 & 8



Description:

Phase 5 (J102) 100sqm fit out completed September 2016.

Phase 6 (J101) to accommodate Postgraduate students (50sqm) completed January 2017.

Phase 7 (J110 to J112) to accommodate Research Office(50sqm) completed February 2017.

Phase 8 (J104 to J107) to accommodate the HR Recruitment staff office, a number of interview rooms, and a waiting room including a refurbishment of the entrance foyer area. Project at design stage. Due to be completed in 2018.

3. 46 GRAND PARADE



Description:

Grand Parade was purchased by CIT in September 2015. The building has a gross floor area of 1,265sqm over 4 floors. The building was purchased to accommodate some of the CCAD students previously located in Sullivan's Quay.

Project Status:

Refurbishment works started early 2017 and students and staff moved in end of August 2017.

4. VARIOUS PROJECTS MAIN BUILDING



Description:

Disability Works: The work covered general upgrade works to meet the demands of current legislation and standards. Work included provision of disabled refuge in the stairwells, upgrade of entrance doors to make them more accessible, introduction of some ramps where necessary. Complete 2017.

B Block Pilot Ventilation Project. Tender complete. Work planned for summer 2018.

Various classroom upgrades. Complete summer 2017.

Project Status:

This project was completed in August 2017.

5. CAMPUS MASTERPLAN REVIEW AND UPDATE



Description:

Reddy Architects were appointed to carry out review of the masterplan and map out the strategic options available for physical development of the Institute for the next 10 years including a review of the parking and commuter plan.

Project Status:

Reddy Architects were appointed in March 2017 and are working through the plan with CIT stakeholders.

6. LRC LEARNING RESOURCE CENTRE



Description:

The project was one of a number of projects submitted by CIT to be included as part of the government PPP 3rd Level bundle. The proposed building is a 6,750sqm standalone building consisting of lecture rooms, classrooms, seminar rooms, learning café, study spaces and offices.

Project Status:

Submission made to HEA to be included as a PPP 3rd Level bundle. A decision is due at the end of 2017.

7. CHEMICAL STORE



Description:

The storage of chemicals in use by departments and functions was reviewed in August 2015. Following this, a risk assessment was undertaken which included proposed controls and treatment works to reduce the overall risk of storing chemicals in campus: Blocks A to D.

Project Status:

Internal works complete. External storage compound at detailed design stage.

8. CRAWFORD COLLEGE OF ART & DESIGN – WORKSHOP/STORAGE AREA REFRUBISHMENT



Description:

The workshops and storage sheds in CCAD are in need of significant refurbishment. Extensive electrical upgrading and general refurbishment is planned on a phased basis to bring these areas up to proper standards

Project Status:

Phase 1 of the metalwork workshop is complete with a complete electrical upgrade. Works were also undertaken to upgrade the gas supply network in the general workshop areas.

Phase 2 is planned for summer 2019 and includes ventilation and heating upgrades along with storage sheds replacement.

7.3 Safety & Facilities Management

During 2016/2017, all the existing Safety Management System documentation and procedures were revised and updated and these have been posted on the CIT Staff Gateway portal. The CIT Safety Statement has been revised and the current revision was signed by the President in March 2017.

The focus continued on updating Risk Assessments across the Institute. Risk assessments were reviewed in the following areas:

- Department of Tourism & Hospitality
- Clonakilty Agricultural College
- Melbourne Exam Centre
- Blackrock Castle Observatory
- Department of Civil, Structural & Environmental Engineering

Risk assessment training was provided to staff at CIT CCAD. A Health and Safety Briefing on the CIT Safety Management Systems was delivered to all staff in the Centre of Craft Studies. A number of pregnant Employee Risk Assessments were carried out during the year with different departments. A full Legionella Risk Assessment was initiated for all areas of CIT's activities with this potential hazard, and this is ongoing.

Display Screen Equipment work stations assessments were carried out and reports issued for the following:

- Department of Technology Enhanced Learning
- Administration staff in the School of Building and Civil Engineering
- Department of Architecture in the Melbourne Building and in Copley Street
- Clean Technology

A significant building safety incident at CIT CSM occurred and support was given about its resolution. Health and safety support was given with respect to correspondence received from the Health and Safety Authority on issues with CIT lifts. Health and safety support was also provided in response to the CIT insurers audit findings following their audit of CIT.

Safety Training

Health and Safety Training was provided as follows:

- Hazard Identification and Risk Assessment
- Fire Safety and Chemical Safety Awareness
- Fork Lift Driver Certification
- Fire Extinguisher and Fire Warden
- Gas detection systems and response training
- Visual Display Unit Assessor
- Cardiac First Responder
- Occupational First Aid
- Emergency First Responder
- Manual Handling and Manual Handling Instructor
- Safety Management System briefing

Health and Safety Projects

The upgrade of the internal chemical store project was completed in the year.

CIT Accidents/Incidents from September 2016 to August 2017

A total of 73 accidents were reported of which 13 were classed as First Aid Box (FAB). These are minor accidents which were treated at the scene with no further action required i.e. sterile dressing applied to a small wound or Watergel applied to a minor burn. There were also 61 incidents reported, these would be described as Medical related events or Near Misses where no injury occurred.

The total of 134 accidents and incidents combined shows a slight decrease on the figure of 147 for 2015/16.

Accident/Incident Statistics (01/09/2016 - 31/08/2017)

Month	Accidents	First Aids Box (FAB)(Included with Accidents)	Incidents (medical events/near miss)	Potentially Life Threatening	Ambulance Callouts	ERT Callouts
September	20	8	12	1	2	8
October	12	1	15	1	1	10
November	11	1	5	0	0	6
December	4	0	5	0	0	2
January	3	0	1	0	1	2
February	11	0	4	0	0	8
March	5	1	8	0	1	8
April	2	1	1	0	0	1
May	2	0	8	1	1	2
June	0	0	0	0	0	0
July	1	1	2	0	1	1
August	2	0	0	0	0	1
Total	73	13	61	3	7	49

CIT Safety Committee

In general, Safety Committee meetings were held as scheduled throughout the academic year.

7.4 Contact Points

CORK INSTITUTE OF TECHNOLOGY

Web: www.cit.ie

BISHOPSTOWN CAMPUS

Address

Bishopstown, Cork

Telephone

+353 21 432 6100

CIT CORK SCHOOL OF MUSIC

Address

Union Quay, Cork

Telephone

+353 21 480 7300/310

Fax

+353 21 454 7617

Web: <http://csm.cit.ie>

CIT CRAWFORD COLLEGE OF ART & DESIGN

Address

Sharman Crawford Street, Cork

Telephone

+353 21 433 5200

Fax

+ 353 21 433 5201

Web: <http://ccad.cit.ie>

NATIONAL MARITIME COLLEGE OF IRELAND

Address

Ringaskiddy, Co Cork

Telephone

+353 21 497 0600

Fax

+353 21 497 0601

Web: www.nmci.ie



Published by Cork Institute of Technology,
Bishopstown, Cork, Ireland.

© Cork Institute of Technology July 2019

Produced by the Staff of the President's Office

Note:

Every effort has been made to ensure that the information herein is accurate. The Institute does not accept any liability for any error contained herein.

E&OE

Translator

Niall Ó Murchadha

