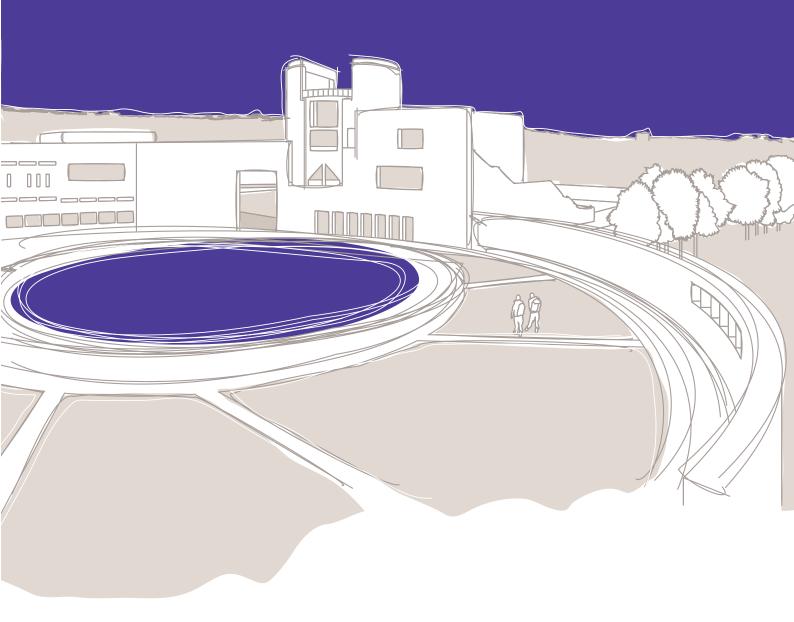
annual report 12/13 cork institute of technology

www.cit.ie











CIT Bishopstown Campus



CIT Cork School of Music



CIT Crawford College of Art & Design



National Maritime College of Ireland



Cork Institute of Technology

annual report 12/13

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 1960's 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 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 Cork Regional Technical College from 2 - 17 September 1979. The Competitions in thirty four craft skills were held mainly in 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. 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 College 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 Regional Technical College, namely the Cork School of Music and the Crawford College of Art and Design.

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 College was redesignated "Cork Institute of Technology" by Mr Micheál Martin TD, Minister for Education and Science.

In 1998 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 Cork Institute of Technology.

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 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. They added much to 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 a new home 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, and 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 US 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 (PRTLI) in 2007, NIMBUS is the first building nationally to be completed in the 4th cycle of PRTLI 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 Wandesford Quay Art Gallery situated near the CIT Crawford College of Art & Design was opened on 18 June 2010.

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.

7

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.



contents

Cork Institute of Technology

| Introduction Page | | |
|-------------------|--|----------|
| 1.1 | Chairman's Statement | 12 |
| 1.2 | President's Statement | 13 |
| 1.3 | Equality Statement | 18 |
| 1.4 | Irish Language & Culture | 19 |
| 1.5 | About Cork Institute of Technology and its Organisation Chart | 20 |
| 1.6 | Special Units and Centres operating within the Institute and | |
| | their relationship to the Institute's Organisation Chart | 22 |
| 1.7 | Sports Facilities Development | 27 |
| Gove | ernance | |
| 2.1 | Membership of Governing Body | 30 |
| 2.2 | Governing Body Meetings | 31 |
| 2.3 | Institute Executive Board (IEB) | 32 |
| 2.4 | Institute Senior Staff | 33 |
| | | |
| | lemic & Student Affairs | |
| 3.1 3.2 | Academic Council Membership Academic Council Executive Committee Membership | 38 44 |
| 3.2 3.3 | Academic Council Executive Committee Membership Academic Council Committees | 44 45 |
| 3.4 | Academic Development | 46 |
| 3. 4 | Approved Courses – Full-Time | 46 |
| 3.6 | Failte Ireland and Craft Approved Courses | 51 |
| 3.7 | Approved Courses – Part-Time | 52 |
| 3.8 | Validating Authorities | 56 |
| 3.9 | External Examiners | 60 |
| | Student Statistics | 66 |
| | Student Prizes | 70 |
| | Student Ombudsman | 70 |
| | | |
| | arch & Development | |
| 4.1 | Development Activities | 80 |
| 4.2 | Research Activities | 83 |
| 4.3 | Research Publications | 88 |
| 4.4 | External Development Links | 98 |
| 4.5 | International and EU Activities | 100 |
| 4.6 | Campus Development | 102 |
| 4.7 | Safety & Facilities Management | 108 |
| | an Resources | |
| 5.1 | Human Resources Report | 112 |
| 5.2 | Staff Numbers | 113 |
| 5.3 | Staff Achievements | 115 |
| | ncial Report | |
| 6.1 | Financial Report | 122 |
| 6.2 | Audited Accounts | 123 |
| Other Information | | |
| 7.1 | News & Events | 146 |
| 7.2 | Alumni Association | 151 |
| 7.3 | Contact Points | 152 |



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 the Cork Institute of Technology for 2012/2013. CIT continues towards its mission of providing the best student-centred education in the country for the benefit of the student and for the benefit of society as a whole. The Institute continues to work closely with, and listens to, the demands of the community it serves, and continuously evolves its offerings to meet these requirements. This is my second year as Chair and it continues to be the greatest honour and privilege to serve this great Institution and to work closely with my fellow governors. I thank them for their help and support.

It has been great to meet with staff and students during the year and to visit all the campuses. The wonderful refurbishment of the Melbourn Building springs to mind as does the signing of the contract for the CREATE Building. The Examinations Office moving to Melbourn is also noteworthy. The Rubicon and NIMBUS Centres continue to grow and evolve and are both world class. The TEC@NIMBUS Open Day was a great success in June. With the importance of Innovation and Entrepreneurship, the establishment of the Hincks Centre for Entrepreneurship Excellence was a very welcome development. Innovation Week and Scifest showcasing 146 projects by 330 participants from 25 second-level schools in Cork City and County was a great success.

I was delighted to see CoderDojo operating at the Bishopstown Campus and from CIT Blackrock Castle. This is a great programme that is vital to prepare the next generation for the future. My own experience of this initiative has been amazing. It is fun and learning combined in a special way. It was wonderful to see one of the CoderDojo teams win the HP award at the BT Young Scientist Exhibition.

The continued success of students in external competitions is truly reflective of the quality, passion and dedication of students and staff. I had the great honour to open the 27th Cork Mechanical, Manufacturing and Biomedical Exhibition in April at the Bishopstown Campus. The quality of each exhibit and the students was of an extremely high standard. I was delighted and proud to see 89 graduands receive their parchment from Minister Quinn at the Cloud Computing ceremony in May. This included the first graduates of the MSc in Cloud Computing.

Arts, Culture and Sport are a key part of the fabric of CIT and this has always been the case. Significant visits included: Mr Edwin Lee, Mayor of San Francisco, and Mr Luo Linguan, Chinese Ambassador to Ireland. The list of achievements across so many different sports is something we are all very proud of.

In conclusion, I would like to thank the members of Governing Body, the President, Dr Brendan Murphy, Senior Management, and Staff for their dedication and hard work during the year. A special note of thanks to Cllr Jim Corr who was honoured at a Civic Reception in June and has been a valued member of Governing Body for 20 years.

Bob Savage

1.2 President's Statement



This is my ninth year in office and the following is my President's Statement:

A. Buildings and Estates

Phase 2 of the refurbishment of the 4,000m² Melbourn Building was completed in November. The Department of Architecture took up residency in its new facility "the Architecture Factory" in the Melbourn Building in February. The official signing of the contract for the construction of the PRTLI-funded Centre for Research in the Advanced Therapeutic Engineering (CREATE) Research Building took place on 1 March between the Institute and BAM Construction. Construction on the building has commenced with a completion date of approximately 12 months. The relocation of the Examinations Office to the Melbourn Building took place in April.

B. Academic Matters

A successful RIAI Accreditation visit in relation to the Master of Architecture programme took place on 11 September, full accreditation was recommended.

The IrelandSkills Competitions 2012 took place at the Institute week commencing 10 September with the awards ceremony taking place on 14 September. The second cohort of students commenced in September on the Institute's first structured PhD Programme, "Ed4Life" funded under the HEA PRTLI 5 Programme. The Professional Diploma in Mathematics for Teaching commenced at the Institute on 24 September. The Faculty of Business & Humanities Annual Awards Ceremony took place on 18 October. The Conferring of Degrees and Other Awards for the Faculty of Business & Humanities took place on 19 October, and 1,192 graduands obtained their parchments. The Faculty of Engineering & Science and the CIT Crawford College of Art & Design Conferring of Degrees and Other Awards took place on 22 October and 1,142 graduands obtained their parchments. The Institute's first stand-alone postgraduate conferring ceremony took place on 23 October and 12 doctorates and 15 Masters were awarded. A very successful NMCI Open Day took place on 23 October. The Conferring of Degrees and Other Awards Ceremony for the CIT Cork School of Music and the Cork Centre for Architectural Education took place on 25 October and 91 graduands received their parchments. The Institute hosted a visit from Dean H F Walker, College of Applied Science & Technology, Rochester Institute of Technology, New York State in November. The Faculty of Engineering & Science Annual Awards Ceremony took place on 29 November. The Ireland Skills Competitions 2013 took place at the Institute week commencing 10 December and concluded with the award ceremony on 14 December. The Institute hosted a visit from our German partners, Hochschule Darmstadt - University of Applied Sciences on 23 January. Their two day visit culminated in the signing of the Memorandum of Agreement Joint Research Collaboration between both institutions. The Spring Conferring Ceremony took place at the NMCI on 14 February. Amongst the 78 graduands who obtained their parchments were the first cohort of students from the Master of Arts in Art & Process, CIT CCAD. The Risam Scholarship programme for 2013 was launched at the Institute on 22 March. The Institute signed an Articulation Agreement in Architectural Technology and Business with Fanshawe College, Colleges Ontario, Canada on 9 April. The Institute became the first in Ireland to sign a University Partnership with the Royal Institution of Chartered Surveyors/ Society of Chartered Surveyors Ireland in respect of the BSc (Honours) in Quantity Surveying on 24 April. CIT CSM hosted an Erasmus Intensive Programme entitled "Interdisciplinary Involvement and Community Spaces" from 24 April to 3 May. The 27th Cork Mechanical, Manufacturing & Biomedical Engineering Exhibition took place on 25 April at the Bishopstown Campus. The opening was performed by the Vice President & Managing Director of EMC and Chairman of the Governing Body, Mr Bob Savage. The exhibition has become one of the largest in Europe with over 240 stands. The theme for the exhibition was "CIT Engineering" - First in Europe - First in Ireland - First in Innovation". The Minister for Education and Skills, Mr Ruairí Quinn TD, attended the Cloud Computing Conferring Ceremony on 9 May. Eighty-nine graduands obtained their parchments. These included the first graduates of the Masters programme in Cloud Computing, the first cohort of MSc in Computational Biology and the Level 8 ICT Skills conversion courses in Cloud Computing. The Institute welcomed a delegation from Tong-Ji University, China to the Institute on 22 May. The President attended the signing of a Consortium Agreement between the Institute and our German partners, Hochschule Darmstadt – University Applied Sciences on 24 May. The Institute hosted a visit from a group of senior US academics

from distinguished Universities on 26 May. The Institute hosted a visit from a delegation of 15 Malaysian Chinese High Schools on 30 May. The Cork Centre for Architectural Education (CCAE) end of year exhibition took place on 31 May. The Department of Architecture 2013 Graduate Exhibition entitled "In & Out" was held on 6 June at the Department's new facility, the Architecture Factory. The opening of the 2013 CIT CCAD Degree Show "Liminal" Exhibition took place on 7 June. The official opening was performed by the Lord Mayor of Cork, Cllr John Buttimer. The Institute hosted its inaugural Erasmus Staff Training Week from 18 to 22 June with twenty-five international visitors from the Institute's European partner institutions attending the event. The Summer Conferring of Degrees and Higher Certificates took place at the NMCI on 20 June and 72 graduands received their parchments. Mr Ernest Cantillon, President, Cork Business Association launched the Continuing Education Handbook 2013/14 on 27 June. Congratulations to the Irish Team who competed in the World**Skills** Competition in Leipzig in July. The Team finished in 11th place and won 2 Gold Medals, 1 Bronze Medal and 7 Medallions for Excellence. The Institute launched its 2013 Springboard Initiative on 8 July, offering two hundred and forty-two places on thirteen programmes. A Memorandum of Agreement was signed with our German partners, Hochschule Darmstadt – University Applied Sciences and the Quality and Qualifications Ireland (QQI) on 13 August.

C. Student Achievements and Awards

Applied Physics & Instrumentation graduate, Mark Casey, received the International Society of Automation Ireland 2012 Award for the best final honours degree student studying applied physics and instrumentation. The National Institute of Designers in Ireland Graduate Design Awards announced Ms Sinéad Crowley, a CIT graduate, as the winner of the National Interior Award on 9 November. CIT Graduates, Alan Bateman, Danny Johnston and Eoin O'Donovan were to the forefront of the accolades presented at the Engineers Ireland Excellence Awards 2012 on 9 November. CIT student, Claire O'Connor was awarded a silver medal at the European Association of Hotel & Tourism Schools Annual Conference and Competitions in Macedonia in November. On 26 February, Mechanical Engineering student, John Roberts was awarded first place and outright winner of the 2013 Finals of the Speak Out for Engineering Competition for his project "Design and Development of a Wheelchair Enablement Device". CIT student, Jack O'Keeffe won the prestigious Knorr Young Chef of the Year title on 27 February. CIT CSM student, Alex Petcu-Colan was awarded the 2013 Yamaha Music Foundation of Europe prize from the Royal Irish Academy of Music. The Institute's annual presentation of prizes ceremony honouring outstanding graduates of 2012 took place at the Bishopstown Campus on 12 March. At the Boston Metro Opera's Contempo Festival & International Composer's Competition 2013, CIT CSM graduate, David Wallace, received two major international awards, the BMO Merit Award and the Director's Choice Award. CIT CSM Masters student, Kelley Lonergan was awarded the €10,000 RDS Music Bursary following her successes in Electric Ireland Feis Cheoil 2013. The CIT CSM Senior and Youth Choirs were awarded 1st prize in the National Competition for Youth Choirs at the 2013 Cork International Choral Festival. CIT student, Patrick Byrnes was announced as the winner of the Level 8 Engineers Ireland Innovative Student Engineer Awards 2013 on 10 June with his project entitled "Automation of Femoral Implant Ultrasonic Cleaning and Blast Processes at Zimmer Orthopaedics". The Irish Concrete Society Prize, which is awarded annually for the best final year project on an accredited civil engineering programme, was won by Brian O'Riordan, graduate of the BEng (Honours) in Structural Engineering. The Institute had the following great successes at the Enterprise Ireland/Invest Northern Ireland Think Outside the Box on 13 June:

- (i) First Place and Enterprise Ireland/Invest Northern Ireland Think Outside the Box Student Entrepreneur of the Year 2013 CIT AH Technology (Nicola O'Mahony, Donal Carey, Kenneth Barry, Damien McAuliffe, Ciaran Malone, Owen McDonagh, and James Cahill)
- (ii) Second Place and Cruickshank Intellectual Property Attorneys Most Technologically Innovative Product
 CIT Sweet Soundings Electrics (John Kelleher, Mariah Reidy, Marco Quatrana, Kieran Minehane, Colm Kearney, Shane
 O'Driscoll, and Niamh Ryan)
- (iii) Enterprise Ireland/Invest Northern Ireland Award of Merit
 CIT 123 Fitness (Eoghan McEnery, Brian Hand, Aidan O'Sullivan, David Linehan, James Fogarty, David Waterman, and Donagh Good)

PhD student, Ruth Keary was awarded the Teagasc Prize for the Best Oral Presentation at the 42nd Annual Food Research Conference on 27 and 28 June.

D. Strategic Matters

Following the launch of the CIT Strategic Plan 2012 to 2016 in October 2012, the Institute Executive Board (IEB) and the executive units across the Institute have been working on developing the detailed plans aimed at implementing the objectives outlined in the plan.

An integrated strategic management framework is being developed. This framework will combine strategic actions, risk management and performance measurement in relation to the Institute's strategic goals and objectives. This framework will be utilised by the various units across the Institute as they create their own plans, thus ensuring consistency of form and practice throughout the organisation.

It is intended that the strategic management framework will be fully operational for the beginning of the 2013/14 academic year.

E. Staff

A retirement function in honour of staff who retired between 1 January 2011 to 31 January 2012 took place on 23 November. Dr Gerard Kelly was appointed to the position of Acting Head of Department of Mechanical, Biomedical & Manufacturing Engineering on 2 January. Mr John P. Murphy was appointed to the role of Institute Student Ombudsman commencing on 1 February. Mr Jonathan McCarthy took up duty as the Institute's IT Manager on 11 February. A retirement function in honour of staff who retired between 1 February 2012 and 31 January 2013 took place on 1 March. Mr Tim Horgan took up duty as the Head of Online Delivery on 11 March. Ms Niamh Lynes took up duty as International Office Coordinator on 22 April. Dr Breda Kenny took up duty as Head of the Hincks Centre for Entrepreneurship Excellence on 8 May. Ms Deirdre Goggin, CIT Extended Campus, was appointed as the Irish representative on the European Recognition of Prior Learning Network. Mr Don Crowley was appointed Head of Department of Organisation & Professional Development on 5 July. Dr Pio Fenton was appointed Head of Department of Marketing & International Business on 19 August.

F. Arts and Culture

The Institute hosted the 2012 National IDI Graduate Design Exhibition and Gala Awards from 5 to 9 November. Celebrations to mark the 5th anniversary of the establishment of the CIT Blackrock Castle Observatory took place on 29 November. A major exhibition of the work of the legendary photographer, Terry O'Neill, took place at the Wandesford Quay Gallery and City Hall from 25 January to 22 February. Safety Week took place at the Institute from 11 to 14 February. The Business & Accounting and Tourism & Hospitality Ball took place on 20 February and over 1,500 students and staff attended. The prestigious Gala celebrating the 2013 Chinese New Year took place at the CIT CSM on 23 February. The celebrations were attended by Mr Luo Linguan, Chinese Ambassador to Ireland, and the Lord Mayor of Cork, Cllr John Buttimer. The Students' Union Safety Week 2012 was chosen as the third-level Education Category Award Recipient at the Road Safety Authority Leading Lights in Road Safety Awards for their excellent work in helping to save lives and preventing serious injuries on our roads. For the fourth year in a row, the Department of Tourism & Hospitality Studies was presented with the prestigious GOLD Green Hospitality Award for best practice. The Institute supported the 10th year of the Cork Life Long Learning Festival, which ran from 18 to 24 March. The Student Societies and Activities Awards took place on 20 March and six individual and six society groups were presented with awards. Almost €6,500 was raised for a number of worthwhile charities during CIT RAG Week 2013. The Mayor of San Francisco, Mr Edwin Lee, visited the CIT BCO as part of the St Patrick's Day celebrations. During his visit, Mayor Lee announced a project to establish a robotic telescope at Ormondale Elementary School in Portola Valley. This will allow Irish schools to use telescopes in real-time from their classrooms. The staff and students of the Department of Tourism & Hospitality Studies held a coffee morning in aid of Daffodil Day on 21 March and raised over €1,100. The "Symphony of Colour Exhibition" took place at the CIT CSM from 16 April to 17 May. The Photographic Society Exhibition "Uisce" took place at the Institute from 17 April to 1 May. The launch of the Institute's Arts and Culture Website http://arts.cit.ie took place on 29 April at CIT CSM. In association with The Gathering, the Institute held a family fun day "Spraoi@CIT" on 22 June at the Bishopstown Campus. Events continued in the afternoon at CIT CCAD and in the evening at CIT CSM.



G. Sport

The final of the postprimary schools Cork County Senior Hurling Championship took place at the Institute on 21 November. The Institute's annual Sport Bursaries took place on 5 December with a total of 107 bursaries being presented to the Institute's top athletes from a broad spectrum of sports. The Institute's Athletics Club had much to celebrate in February with the following great performances:

- (i) Sinéad O'Connor, Department of Social & General Studies, taking the title of Female Intervarsity Champion for the Triple Jump
- (ii) Rachel O'Shea, Department of Social & General Studies, won third place in the 800m
- (iii) Cathal Owens, Department of Biomedical & Manufacturing Engineering, won third place in the 400m
- (iv) Thomas Houlihan, Department of Civil, Structural & Environmental Engineering was victorious in the Pole Vault
- (v) Cullen Lynch, Department of Accounting & Information Systems won second place in the 1,500m
- (vi) The Men's Cross Country Team took the title of Munster Colleges Cross Country Champions for the first time.

The Institute was well represented by 25 of our top student athletes at the Intervarsity Track & Field Champions from 12 to 14 April. The CIT Men's Soccer Club were crowned Colleges and Universities Futsal All-Ireland Champions on 23 April and travelled to Spain to represent Ireland in the Colleges/Universities European Futsal Championships competition from 21 to 29 July, where they were placed 15th overall. The Institute's Sports Awards 2012/13 took place on 29 April at the Bishopstown Campus. Eleven individual awards were presented on the evening and a Graduate Achievement Award was presented to Rachael Vanderwal who has played international basketball with Great Britain and was a member of their 2012 Olympic squad. The Institute's Soccer Club hosted a Soccer Camp at the Bishopstown Campus from 1 to 5 July. The 62nd Cork City Sports took place at the Institute's Athletics Stadium on 2 July. The Institute hosted the FAI Summer Soccer Camp at the Bishopstown Campus from 8 to 12 July. Congratulations to CIT students, Lorcán McLoughlin (Man of the Match) and Jamie Coughlan on their victory in the All Ireland Senior Hurling semi-final on 11 August.

H. Innovation and Research

In early September, MEDIC Applied Research Centre secured Enterprise Ireland funding of €1.1m to develop medical devices for clinical applications in critical care. The Institute hosted workshops on entrepreneurship training and idea generation for 450 second-level students from Cork City and County schools on 6 and 7 September. A CoderDojo Centre began operation at the Bishopstown Campus in September with over 50 school children attending the session on a weekly basis. A second CoderDojo operates weekly from the CIT BCO. The Institute's Zero2020 test-bed was announced as the winner of the Institute of Designers in Ireland Sustainability Award for 2012. A team from the Institute's CoderDojo was awarded the HP "Innovation4Good" award at the BT Young Scientist Exhibition for developing the App "Revision Precision" to promote productive revision techniques. The Institute hosted the 2012 New Frontiers Entrepreneur Development Programme Showcase and Awards Ceremony on 28 January. Mr Seán Sherlock TD, Minister for Research & Innovation, announced the establishment of the HINCKS Centre for Entrepreneurship Excellence on 28 January. Innovation Week took place at the Institute from 4 to 8 March. The week culminated with €10,000 of prizes being presented at the 2013 Cork County and City Enterprise CIT Prize for Innovation Awards Ceremony on 8 March. MSc in Cloud Computing student, Robert Nolan was awarded the runner-up prize in the "Best Technology Enabled Solution" category at the Accenture Leaders of Tomorrow Awards on 11 April. SciFest 2013 took place at the Institute on 19 April. It was opened by Mr Seán Sherlock TD, Minister for Research & Innovation and showcased 146 projects exhibited by 330 participants from 25 second-level schools in Cork City and County. Mr Seán Sherlock TD, Minister for Research & Innovation, officiated at the Launch of the Supports and Services on offer to companies in Ireland by the TESLA Project (transnational EU funded project aimed at supporting the growth and development of early-stage high potential start-ups) on 10 May. The United Technologies Research Centre Technical Council (UTRC) had a successful visit to the Institute on 14 May. The Institute hosted the inaugural week "Engineering Your Future" for transition year students from twenty-six second-level schools in Cork on 20 May. Mr Sean Sherlock TD, Minister for Research & Innovation, officiated at the opening of the Halpin Centre for Research and Innovation at the NMCI on 27 May. The Institute hosted a visit from the British Ambassador to Ireland, Mr Dominick Chilcott and Mr Paul Caplis, Head of UK Investment, on 31 May. The TEC@NIMBUS Industry Open Day took place at the NIMBUS Centre on 14 June. The Institute hosted a CIT Enterprise Camp at the Rubicon Centre from 19 to 23 August for 25 young entrepreneurs from second-level schools in Cork City and County. Mr Seán Kelly MEP attended the prize giving ceremony on 23 August.

I. National Strategy for Higher Education

In February 2012, the Higher Education Authority (HEA) published the Process and Criteria for Technological University Designation in conjunction with a policy paper on the Future Landscape for Higher Education. Following this publication, the HEA asked for submissions from institutions in respect of the proposed landscape. In July, the Institute made a submission outlining its intention to seek designation as the Munster Technological University (MTU) in co-operation with IT Tralee and LIT. The CIT submission was mirrored by similar submissions from IT Tralee and LIT.

In December 2012, LIT decided to pursue an alternative strategic direction and withdrew from the MTU consortium. Following the withdrawal of LIT, CIT and IT Tralee developed a supplementary submission for the HEA confirming our intention to proceed with the plan to seek designation as a technological university.

On 30 May 2013, the Minister for Education and Skills, Mr Ruairí Quinn TD, announced a number of reforms to the configuration and governance of the Irish higher education system. As part of this announcement, he addressed the proposal submitted jointly by CIT and IT Tralee, to establish the Munster Technological University (MTU). The Minister instructed that the MTU proposal should progress to the next stage of the process towards technological university designation.

J. Civic Reception

A Civic Reception was held at City Hall on 4 June to honour a member of the Institute's Governing Body, Cllr James A. Corr. Cllr Corr has served for 40 years as a member of Cork City Council and has been a valued member of the Institute's Governing Body for the past 20 years.

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.

19

1.4 Irish Language & 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 About 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 Development, and the Vice President for Finance & Administration.

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

CIT Crawford College of Art & Design (CIT CCAD)

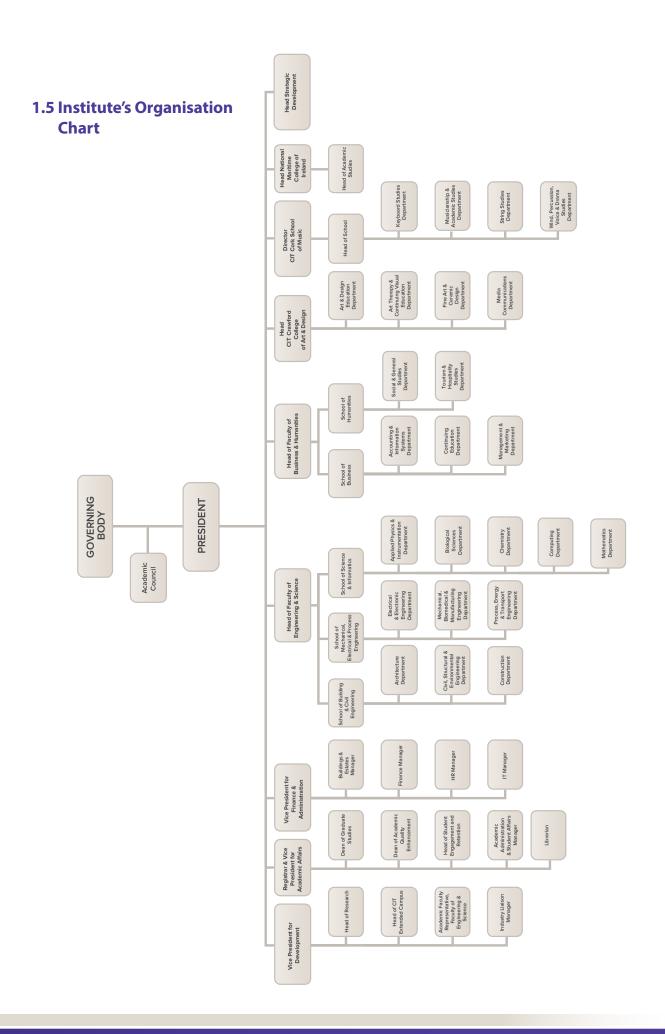
CIT CCAD is a listed building dating from the early 1900s located in Sharman Crawford Street and includes the departments of Fine Art & Ceramic Design, Art & Design Education, and Art Therapy & Continuing Visual Education. The Department of Media Communications situated at the Bishopstown Campus is also 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, String Studies, Wind, Percussion, Voice & Drama Studies and Musicianship & Academic Studies.

National Maritime College of Ireland (NMCI)

This state-of-the-art College operating from 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.



1.6 Special Units and Centres operating within the Institute

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

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 25,000 visitors.

2. 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. NIMBUS 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 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 multi-national Corporation.

NIMBUS 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.

3. 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, 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.

4. 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 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 researchers will relocate to a new building in 2013. The Centre for Research in Advanced Therapeutic Engineering (CREATE) will provide a multidisciplinary environment with ready access to industry and visiting researchers.

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: SMART surgical devices (integration of micro electronics into medical devices such as orthopaedic implants); 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); and 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 foodborne 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 (CCAE)

Established in 2006, CCAE is a joint venture between CIT and UCC. Supported by Cork City Council and the architectural profession within the region, CCAE 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. 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.

5. 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. The CAPPA Centre includes over 20 researchers and postgraduate students, and is housed in laboratories both at 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 €300m over 6 years. CIT was the only Institute of Technology to be funded in the call. Within the €23m I-PIC centre, CAPPA will work on projects with 5 regional companies, both Multi-National 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 of 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.

The following Unit and Centre operates under the auspices of the National Maritime College of Ireland

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)

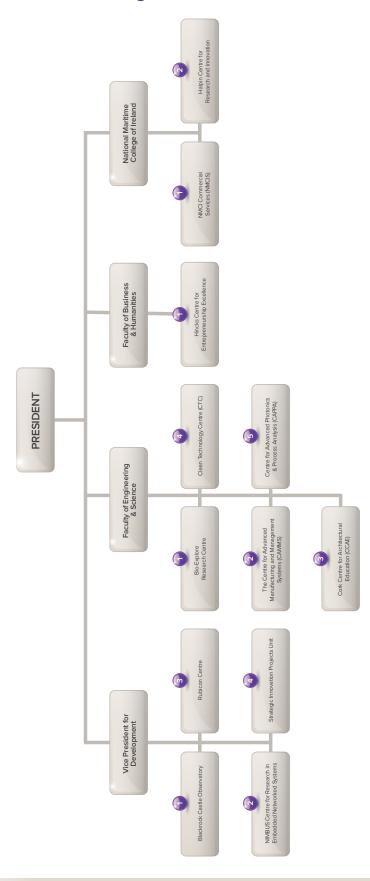
SNO is a joint venture company between the NMCI and SEFtec Global Training Ireland Limited (SGT). Its primary role is as a vehicle to combine the offshore training expertise of SGT with the world class maritime training facilities at the NMCI in pursuit of OPITO (Offshore Petroleum Industry Training 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 now, Research and Innovation activity through the Halpin Centre for Research and Innovation.

The Centre will be 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 SME's 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 and the use of simulation technology in that sector.

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 mid1990's.

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 at 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.

In the 2012/13 academic year, to underline its commitment to sport, CIT continued to award its annual Sports Scholarships to a wide range of sports for Seniors and Freshers. 107 Sports Scholarships were presented to both male and female athletes from 20 different sports. These Scholarships are awarded to students who display high achievement levels, commitment and dedication to their chosen sport and very importantly, loyalty to that sport within the Institute. The breakdown of the Scholarships awarded were as follows:

- 84 CIT Sports Scholarships (42 Freshers/Development and 42 Senior) for Athletics, Basketball, Camogie, Cycling, Dual GAA, Football, Golf, Hockey, Horseracing, Hurling, Motocross, Powerlifting, Racquetball, Rowing, Rugby, Sailing, Soccer, Table Tennis, Tae Kwon Do, and Tennis;
- 13 Munster Council GAA Scholarships:
- 7 CIT/Munster Rugby Scholarships;
- 2 Munster Council/Cadburys U21 Scholarships;
- 1 Johnathan Herlihy Foundation Soccer Scholarship.

The service benefits to the recipients included access to CIT Sports Facilities including the Elite Gym & Weights Room, Sports Education Talks & Workshops, and a Mentoring Support Network.





2. Governance

Cork Institute of Technology

- 2.1 Membership of Governing Body
- 2.2 Governing Body Meetings
- 2.3 Institute Executive Board (IEB)
- 2.4 Institute Senior Staff



2.1 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 30 September.

The membership of the Governing Body from 1 September 2012 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)

Cllr Catherine Clancy (Nominee of City of Cork VEC)
Cllr James A. Corr (Nominee of City of Cork VEC)
Mr Ted Owens (Nominee of City of Cork VEC)
Mr Barra Ó Briain (Nominee of County Cork VEC)
Cllr Mary Hegarty (Nominee of County Cork VEC)
Canon G.A. Salter (Nominee of County Cork VEC)

Two appointed under Section 4(1)(c)

Dr Áine Ní Shé (Academic Staff Nominee) Mr John O'Sullivan (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 Chris Scanlon (Nominee of Students' Union) up to 30 September 2012 Ms Niamh Hayes (Nominee of Students' Union) up to 30 September 2012 Mr Danny O'Donovan (Nominee of Students' Union) up to 30 September 2013 Ms Niamh Hayes (Nominee of Students' Union) up to 30 September 2013

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)

Ms Valerie Gleeson (Nominee of the Arts Council)
Ms Mary Keane (Nominee of the Association of Principals and Vice Principals of Post Primary Schools)
Mr Billy O'Neill (Nominee of Institution of Engineers of Ireland)
Mr Mark Whitaker (Nominee of Cork Chamber of Commerce)
Mr Jim Woulfe (Nominee of Irish Co-Operative Organisation Society Ltd.)

31

2.2 Governing Body Meetings

During the period from 1 September 2012 to 31 August 2013, the Governing Body met on nine separate occasions. They met on the following dates:

Thursday 4 October 2012

Thursday 1 November 2012

Thursday 6 December 2012

Thursday 7 February 2013

Friday 8 March 2013

Thursday 4 April 2013

Friday 3 May 2013

Thursday 31 May 2013

Thursday 4 July 2013



2.3 Institute Executive Board (IEB)

The Institute Executive Board was set up and held its first meeting in March 2004. Its role and functions are:

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 to formulate Institute policy for approval by the Governing Body, including academic matters, operational issues, the annual returns, and the programmes and budgets for the Institute. The Institute Executive Board is thus a standing instrument of internal consultation between the President's Office and senior management across all academic and administrative functions of the Institute.

The composition of the Institute Executive Board is as follows:

Dr Brendan J. Murphy, President
Dr Barry O'Connor, Registrar & Vice President for Academic Affairs
Mr Paul Gallagher, Vice President for Finance & Administration
Mr Michael Delaney, Vice President for Development and Acting Head
of the National Maritime College of Ireland
Mr Michael Loftus, Head of Faculty of Engineering & Science
Mr Damien Courtney, Head of Faculty of Business & Humanities
Dr Geoffrey Spratt, Director, CIT Cork School of Music
Ms Orla Flynn, Head, CIT Crawford College of Art & Design
Mr Tadhg Leane, Head of Strategic Development

The Institute Executive Board meets on a monthly basis and at such other times deemed to be 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 details of the meetings. Reports from their meetings are circulated to the Governing Body and are available to staff via Gateway (staff intranet).

33

2.4 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

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

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

Vice President for Development Mr Michael Delaney, MSc, MEd, MIBioll, HDipEd, MICI,

MESAI, ATCL

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

Head of Faculty of Business & Humanities Mr Damien Courtney, BA, MA(Louv), MPhil(Louv), MIUSSP

Head of National Maritime College of Ireland (Acting) Mr Michael Delaney, MSc, MEd, MIBioll, HDipEd, MICI,

MESAI, ATCL

Director, CIT Cork School of Music Dr Geoffrey Spratt, BA, PhD

Head, CIT Crawford College of Art & Design Ms Orla Flynn, MSc, MA, MICS, MIDI

Head of Strategic Development Mr Tadhg Leane, BA, MSc

Other Senior Positions

Head of Research Dr Niall Smith, BSc, PhD

Dean of Academic Quality Enhancement Dr Stephen Cassidy, BE, MEngSc, PhD, CEng, Eur Ing, MIEl
Head of Student Engagement and Retention Ms Marese Bermingham, BComm, HDipEd, HDipGC, MIGC

Head of CIT Extended Campus

Dr Irene Sheridan, BE, MEngSc, PhD

Head of NIMBUS Centre

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

Academic Faculty Representative, Faculty of

Engineering & Science, CIT Extended Campus Mr Daithí Fallon, BE, MEngSc, CEng, MIEI, CQE

Head of Online Delivery Mr Tim Horgan, BTech, MSc

Central Services Managers

Academic Administration & Student Affairs Manager Dr Dan Collins, MEd, BA, BD, PhD
Buildings & Estates Manager Mr Kevin McCarthy, MSc, CEng, MIEI

Finance Manager Mr John Cogan

Human Resources Manager Mr Anthony Collins, BA

Industry Liaison Manager Ms Josette O'Mullane, BComm, ACMA

IT Manager Mr Jonathan McCarthy, BSc, MA, PostgradDip

Librarian Mr Derry Delaney, BA, DLIS

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, Eurlng, 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 Mr Matt Cotterell, BE, MED, CMfgE, MIEI, AMIMechE



Head of Department of Electrical & Electronic Engineering

Head of Department of Mechanical, Biomedical

& Manufacturing Engineering (Acting)

Head of Department of Process, Energy & Transport Engineering

Dr Joe Connell, BSc (Eng), MSc (Eng), PhD, CEng, FIEI, MIEEE

Dr Gerard Kelly, BE, MEngSc, PhD

Dr Michael J. O'Mahony, BE, MEngSc, PhD, MIEI

School of Science & Informatics:

Head of School (Acting)

Head of Department of Applied Physics & Instrumentation

Head of Department of Biological Sciences (Acting)

Head of Department of Chemistry

Head of Department of Computing

Head of Department of Mathematics

Dr Hugh McGlynn, BSc, PhD, FHEA

Dr Liam McDonnell, BSc, PhD, CPhys, FInstP Dr Brendan O'Connell, BSc (Hons), PhD

Dr John Wood, BSc, PhD, CChem, MRSC, FIC

Mr Jim O'Dwyer, BA(Mod), HDipEd, CEng, FICS, MBCS

Dr Áine Ní Shé, BEd, MA, PhD, LRSM, LTCL

FACULTY OF BUSINESS & HUMANITIES

Head of Faculty

Mr Damien Courtney, BA, MA(Louv), MPhil(Louv), MIUSSP

School of Business:

Head of School

Head of Department of Accounting & Information Systems

Head of Department of Continuing Education

Head of Department of Management & Marketing

Mr Gerard O'Donovan, BComm, MBA, MMII, MICS

Ms Caroline O'Reilly, BComm, MBus

Mr Don Crowley, BBus, GDE(B), Grad. Dip IT

Mr Brian McGrath, BComm, FCA, MMII

School of Humanities:

Head of School (Acting)

Head of Department of Social & General Studies

 $Head\ of\ Department\ of\ Tourism\ \&\ Hospitality\ Studies$

School of Graduate Studies

Dean of Graduate Studies

Dr Margaret Linehan, BBus, MBus, PhD

Mr Jim Walsh, BA, HDipEd, BCL, LLB, MEMI

 $Mr\ Adrian\ Gregan,\ BA,\ MBus,\ Dip\ H\&C\ Mgmt,\ FIHI,\ Post$

Grad Dip Hosp Ed

Dr Eamonn Cashell, BA(Mod), BSc, PhD, CPhys, MInstP

CIT Cork School of Music

Director

Head of School

Head of Department of Keyboard Studies

Head of Department of Musicianship & Academic Studies

Head of Department of String Studies

Head of Department of Wind, Percussion, Voice

& Drama Studies

Dr Geoffrey Spratt, BA, PhD

Ms Aiveen Kearney, MA, BMus, HDE, ATCL Dr Gabriela Mayer, DMA, MMus, BMus, Dip

Berlin Hochschule

Ms Maria Judge, BMus, Dip Kodály Intézet Hungary

Ms Joan Scannell, MA, BMus, DipCSM, LTCL

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

CIT Crawford College Of Art & Design

Head

Head of Department of Art & Design Education

Head of Department of Art Therapy & Continuing Visual Education

Head of Department of Fine Art & Ceramic Design (Acting)

Head of Department of Media Communications

Ms Orla Flynn, MSc, MA, MICS, MIDI

Mr Albert Walsh, MEd, Dip ADT, ND Design Mr Edward Kuczaj, MA, Dip Art Th, RNMS

Ms Trish Brennan, MA, BA

Ms Rose McGrath, MA, Dip Ed, BDes

National Maritime College of Ireland

Head (Acting)

Mr Michael Delaney, MSc, MEd, MIBioll, HDipEd, MICI,

MESAI, ATCL

Dr Noel Barry, BE, ME, PhD, CEng, MIEI, MPES, MIAS

Cork Institute of Technology

Head of Academic Studies





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 Prizes
- 3.12 Student Ombudsman



3.1 Academic Council Membership

The current members of the Academic Council were appointed in June 2010 and will continue in office for a period of three years. The Academic Council met on eight occasions during the period 1 September 2012 to 31 August 2013 as follows:

Wednesday, 10 October 2012 Wednesday, 14 November 2012 Friday, 14 December 2012 Wednesday, 13 February 2013 Wednesday, 13 March 2013 Wednesday, 17 April 2013 Wednesday, 15 May 2013 Friday, 14 June 2013

PRESIDENT

Brendan J. Murphy

SENIOR ACADEMIC STAFF

Adrian Gregan Head of Department of Tourism & Hospitality Studies

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 (Acting)

Brian McGrath Head of Department of Management & Marketing

Caroline O'Reilly Head of Department of Accounting & Information Systems

Daithí Fallon Head of Department of Mechanical, Biomedical & Manufacturing Engineering

Damien Courtney Head of Faculty of Business & Humanities

Daniel Cahill Head of Department of Construction

Desmond Walsh Head of Department of Civil, Structural & Environmental Engineering

Don Crowley Head of Department of Continuing Education (Acting)

Eamonn Cashell Dean of Graduate Studies

Edward Kuczaj Head of Department of Art Therapy & Continuing Visual Education, CIT CCAD

Gabriela Mayer Head of Department of Keyboard Studies, CIT CSM

Geoffrey Spratt Director, CIT CSM

Gerard O'Donovan Head of School of Business

Hugh McGlynn Head of School of Science & Informatics (Acting)

Irene SheridanHead of CIT Extended CampusJim O'DwyerHead of Department of Computing

Jim WalshHead of Department of Social & General StudiesJoan ScannellHead of Department of String Studies (Acting), CIT CSMJoe ConnellHead 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

John Wood Head of Department of Chemistry
Katherine Keane Head of Department of Architecture

Liam McDonnell Head of Department of Applied Physics & Instrumentation

Margaret Linehan Head of School of Humanities (Acting)

Maria Judge Head of Department of Musicianship & Academic Studies

Matt Cotterell Head of School of Mechanical, Electrical & Process Engineering

Michael Delaney Head, NMCI (Acting)

Michael Loftus Head of Faculty of Engineering & Science

Michael J. O'Mahony Head of Department of Process, Energy & Transport Engineering

Niall Smith Head of Research

Noel Barry Head of Academic Studies, NMCI



Orla Flynn Head, CIT CCAD

Rose McGrath Head of Department of Media Communications, CIT CCAD

Stephen Cassidy Dean of Academic Quality Enhancement

Tadhg Leane Head of Strategic Development

Trish Brennan Head of Department of Fine Art & Ceramic Design (Acting), CIT CCAD

SENIOR EXECUTIVE

Barry O'Connor Registrar & Vice President for Academic Affairs

Michael Delaney Vice President for Development

Paul Gallagher Vice President for Finance & Administration

EX-OFFICIO STAFF

Catherine Frehill Module Moderator

Derry Delaney Librarian

Dan Collins Academic Administration & Student Affairs Manager

Associate Head of NMCI

Eva Juhl Institutional Review Facilitator
John Twohig Head of Centre for Craft Studies

STUDENT REPRESENTATIVES

Commander David Barry

Chris Scanlon President of Students' Union, CIT

Killian Hughes Education Vice President of Students' Union, CIT

ELECTED ACADEMIC STAFF

Faculty of Engineering & Science

Brian O'Rourke Civil, Structural & Environmental Engineering

Chris Gibbons Mechanical Engineering

David Cadogan Civil, Structural & Environmental Engineering

Garrett O'Sullivan Architecture

Gerard Kelly Mechanical, Biomedical & Manufacturing Engineering

Guillaume Huyet Applied Physics & Instrumentation
Harvey Makin Applied Physics & Instrumentation
Ian O'Sullivan Chemical & Process Engineering

John Barrett Electronic Engineering

John Justin Murphy Civil, Structural & Environmental Engineering

Marc Ó Riain Architecture
Michael Brennan Mathematics

Michael J. O'Mahony Mechanical Engineering

Niamh Power Civil, Structural & Environmental Engineering

Ray Looney Electrical Engineering

Seamus Farrell Construction
Siobhán O'Sullivan Biological Sciences

Tim Horgan Computing

Tom O'Mahony Electronic Engineering

Colin Manning Mathematics
Paul Walsh Computing

Faculty of Business & Humanities

Áine de RóisteSocial & General StudiesBreda FogartyManagement & MarketingCarmel ButtimerAccounting & InformationCatherine MurphyAccounting & Information

Gearóid Ó Súilleabháin DEIS

Mary Cooney Social & General Studies
Maurice Murphy Management & Marketing
Ruth Vance Accounting & Information
Tom O'Connor Social & General Studies

CIT CCAD

Ann Wilson Media Communications

Catherine Hehir CIT CCAD

Paul Green Media Communications

Susanna Broderick CIT CCAD

CIT CSM

Aileen Donnelly
Carbry O'Sullivan
CIT CSM
David Whitla
CIT CSM
Dermot Walsh
CIT CSM
Hugh McCarthy
Nicholas O'Halloran
CIT CSM
Regina Crowley
CIT CSM

NMCI

William Kavanagh NMCI

The new Academic Council was appointed in May 2013 and will continue in office for a period of three years.

PRESIDENT

Brendan J. Murphy

SENIOR ACADEMIC STAFF

Adrian Gregan Head of Department of Tourism & Hospitality Studies

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 (Acting)

Brian McGrath Head of Department of Management & Marketing

Caroline O'Reilly Head of Department of Accounting & Information Systems

Daithí Fallon Academic Faculty Representative, Faculty of Engineering and Science,

CIT Extended Campus

Damien Courtney Head of Faculty of Business & Humanities
Daniel Cahill Head of Department of Construction



Desmond Walsh Head of Department of Civil, Structural & Environmental Engineering

Dirk Pesch Head of NIMBUS Centre

Don Crowley Head of Department of Continuing Education

Eamonn Cashell Dean of Graduate Studies

Ed Kuczaj Head of Department of Art Therapy & Continuing Visual Education, CIT CCAD

Gabriela Mayer Head of Department of Keyboard Studies, CIT CSM

Geoffrey Spratt Director, CIT CSM

Gerard Kelly Head of Department of Mechanical, Biomedical & Manufacturing Engineering (Acting)

Gerard O'Donovan Head of School of Business

Hugh McGlynn Head of School of Science & Informatics (Acting)

Irene Sheridan Head of CIT Extended Campus
Jim O'Dwyer Head of Department of Computing

Jim WalshHead of Department of Social & General StudiesJoan ScannellHead of Department of String Studies, CIT CSM

John O'Connor Head of Department of Wind, Percussion, Voice & Drama Studies, CIT CSM

John Twohig Head of Centre of Craft Studies

John Wood Head of Department of Chemistry

Joe Connell Head of Department of Electrical & Electronic Engineering

Joe Harrington Head of School of Building & Civil Engineering

Katherine Keane Head of Department of Architecture

Liam McDonnell Head of Department of Applied Physics & Instrumentation

Marèse Bermingham Head of Student Engagement & Retention Initiative

Margaret Linehan Head of School of Humanities (Acting)

Maria JudgeHead of Department of Musicianship & Academic Studies, CIT CSMMatt CotterellHead of School of Mechanical, Electrical & Process EngineeringMichael J. O'MahonyHead 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 Studies, NMCI

Orla Flynn Head, CIT CCAD

Rose McGrath Head of Department of Media Communications, CIT CCAD

Tim Horgan Head of Online Delivery

Trish Brennan Head of Department of Fine Art & Ceramic Design (Acting), CIT CCAD

SENIOR EXECUTIVE

Barry O'Connor Registrar & Vice President for Academic Affairs

Michael Delaney Vice President for Development and Acting Head of NMCI

Paul Gallagher Vice President for Finance & Administration

EX-OFFICIO STAFF

Catherine Frehill Module Moderator

Dan Collins Academic Administration and Student Affairs Manager

Commander David Barry Associate Head of NMCI

Derry Delaney Librarian

Eva Juhl Institutional Review Facilitator

Stephen Cassidy Dean of Academic Quality Enhancement

Tadhg Leane Head of Strategic Development



STUDENT REPRESENTATIVES

Avril Constant Class Representative

Danny O'Donovan President of CIT Students' Union

Eamon Shanahan Representative of CIT CCAD, CIT CSM, and NMCI Richard McCarthy Education Vice-President of CIT Students' Union

ELECTED ACADEMIC STAFF

Faculty of Engineering & Science

Ambrose Furey Chemistry

Anna-Maria Keaveney Biological Sciences

Anthony Grant Applied Physics & Instrumentation

David Cadogan Civil, Structural & Environmental Engineering

Deborah Ní Riain Architecture

Eamonn Butler Applied Physics & Instrumentation

Garrett O'Sullivan Architecture
Gerard MacSweeney Computing

lan O'Sullivan Process, Energy & Transport Engineering

Maretta Brennan Mathematics

Michael Murray Electrical & Electronic Engineering

Niamh Power Civil, Structural & Environmental Engineering

Oliver Gough Electrical & Electronic Engineering

Seán Lacey Mathematics
Vincent Ryan Computing
William Doherty Chemistry

Faculty of Business & Humanities

Áine de RóisteSocial & General StudiesChristopher MamoSocial & General StudiesCon BurnsSocial & General StudiesConor KelleherManagement & MarketingFelix RaeksonContinuing Education

Gearóid Ó Súilleabháin DEIS

Maurice MurphyManagement & MarketingMuireann O'NeillContinuing EducationRoisín LaneSocial & General Studies

CIT CCAD

Ann Wilson Media Communications
Pádraig Trehy Fine Art & Ceramic Design

NMCI

Dermot O'Reilly NMCI lan Black NMCI

Following the recent election for membership of Academic Council, from the elected Constituencies a full complement of members was unsuccessful in May 2013. Thirty-one vacancies exist and it is proposed to seek further nominations for membership of Council in September 2013.





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 to be 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;
- Recording to be 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.

45

3.3 Academic Council Committees

The Academic Council approved the formation of the following committees:

Academic Planning & Review Committee

Tadhg Leane (Chairperson)

Admissions Committee

Matt Cotterell (Chairperson)

Learning Resources Committee

Dr Siobhán O'Sullivan (Chairperson)

Regulations Committee

Dr Ann Wilson (Chairperson)

Research & Development Committee

Dr Niall Smith (Chairperson)

Standing Orders Committee

Jim Walsh (Chairperson)

3.4 Academic Development

CIT Quality Statement

In December 2012, the Academic Council reviewed and recommended to Governing Body an overall quality statement for the Institute. It stated that:

Cork Institute of Technology is committed to a culture of quality enhancement through a process of continuous quality improvement:

in academic provision, research and campus extension, by

- being an international exemplar in professional education through the use of best practice in teaching, learning and research
- providing a relevant and flexible career-focused curriculum developed in partnership with enterprise and the extension of the campus into the workplace and the wider community
- developing a student-centred institution which develops and fosters the talents of its students and prepares them to make a positive contribution to society

as an institute by

- aligning departments and support units with the Institute's strategic plan and goals
- establishing and monitoring key performance indicators
- benchmarking with other higher education institutions where appropriate
- building and enhancing systems to support the efficiency and effectiveness of operations and management reporting

and by

 ensuring staff, students and graduates are aware of the importance of ethical behaviour and social responsibility across all economic, social and cultural domains.

External Reviews

During the 2012/2013 academic year, the programmatic review for the National Maritime College of Ireland was completed with Dr Joseph Ryan, Registrar, Athlone Institute of Technology as Chair. The review panel consisted of a number of national and international experts drawn from a variety of maritime-related disciplines. The review consisted of a two-stage process: Stage 1 – a strategic review of the College and its range of activities and Stage 2 – a review of academic programmes offered by the College in the general areas of nautical studies, marine engineering, naval leadership and logistics.

In September, a peer review of the Cork Centre for Architectural Education organised jointly by Cork Institute of Technology and University College Cork was conducted, chaired by Professor James Horan. This review was both a programmatic review of the Bachelor of Science (Hons) in Architecture and Master of Architecture degrees in support of RIAI accreditation and as the Self-Assessment Review of the Centre's quality assurance.

In late May, an international panel of experts was convened to

undertake an evaluation of research degree programmes at Level 10 in Computing, with the aim of making a recommendation to Quality and Qualifications Ireland (QQI) on continuing approval of these programmes. The panel found that the conditions for reapproval of the research programmes have been fully met, and therefore recommended to QQI to renew approval for research programmes at Level 10 in the area of computing. In addition, the panel expressed its opinion that the areas identified for improvement in the 2004 Research Accreditation Review have been substantially met, and that further progress should be possible in the near future for computing to demonstrate a greater level of intrinsic research capacity which would enable an application for research accreditation.

New Programme Development

The Institute continued to develop and diversify its programme portfolio. It is notable the number of new programmes that were developed and approved during the academic year across a broad range of disciplines.

Undergraduate

Bachelor of Engineering in Environmental Engineering; Bachelor of Science in Craft Technology - Mechanical Services; Bachelor of Business (Hons) in Sport and Exercise; Higher Diploma in Science in Data Science & Analytics.

Postgraduate

Master of Arts in E-learning Design & Development; Postgraduate Diploma in Play Therapy; Master of Arts in Play Therapy; Master of Arts in Human Resource Management; Master of Science in Interior Architecture; Master of Science in Architectural Technical Design; Master of Architecture (jointly with UCC).

Special Purpose Awards

Certificate in Cloud Infrastructure Technologies; Certificate in Enterprise Potential; Certificate in Radio Broadcast Media; Certificate in Chemical and Biopharmaceutical Process Operations; Certificate in Mechanical Science; Certificate in Biopharmaceutical Processing; Diploma in Biopharmaceutical Manufacturing Operations; Certificate in Process Plant Systems; Certificate in Manufacturing Systems Design; Certificate in Chemical Process Safety; Diploma in Clinical Laboratory Practice; Certificate in Process Industries Advancements and Innovation.

Academic Policies

As part of its ongoing enhancement policy, academic policies such as Academic Honesty, Plagiarism and Infringements relating to Examinations and Assessments; and Recognition of Prior Learning were reviewed, amended and approved by Academic Council.

3.5 Approved Courses – Full-Time

SCHOOL OF BUILDING & CIVIL ENGINEERING

Department of Civil, Structural & Environmental Engineering

Bachelor of Engineering in Civil Engineering – Years 1, 2 & 3
Bachelor of Engineering (Hons) in Structural Engineering – Years 2, 3 & 4
Bachelor of Engineering (Hons) Common Entry – Year 1
Master of Engineering in Civil Engineering (Environment and Energy) (Taught)
Master of Engineering (Structural Engineering) (Taught)
Master of Engineering (Research)
Doctor of Philosophy

Department of Architecture

Bachelor of Science in Architectural Technology – Years 1, 2 & 3
Bachelor of Science in Interior Architecture – Years 1, 2 & 3
Bachelor of Science (Hons) in Architectural Technology – Years 1, 2, 3 & 4
Bachelor of Science (Hons) in Architecture – Years 1, 2, 3 & 4
Bachelor of Science (Hons) in Interior Architecture – Years 1, 2, 3 & 4
Master of Architecture (Taught) (Joint with UCC)
Master of Science (Research)

Department of Construction

Bachelor of Science in Quantity Surveying – Year 3
Bachelor of Science in Construction – Years 1 & 2
Bachelor of Science in Construction Management – Year 3
Bachelor of Science (Hons) in Construction Management – Years 1, 2, 3 & 4
Bachelor of Science (Hons) in Quantity Surveying – Years 1, 2, 3 & 4
Bachelor of Science (Hons) in Construction Management – Year 4
Master of Science in Construction Project Management (Taught)

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

Department of Mechanical, Biomedical & Manufacturing Engineering

Single Subject Certificate (SPA) SCADA and Automation Systems

Certificate (SPA) Lean Six Sigma Green Belt

Bachelor of Engineering in Mechanical Engineering – Years 1, 2 & 3

Bachelor of Engineering in Biomedical Engineering – Years 1, 2 & 3

Bachelor of Engineering (Hons) in Mechanical Engineering – Years 1, 2, 3 & 4

Bachelor of Engineering (Hons) in Biomedical Engineering – Years 1, 2, 3 & 4

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

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

Diploma (SPA) Mechanical Engineering Systems – Year 1

Certificate (SPA) Lean Six Sigma Black Belt

Master of Engineering (Research)

Department of Process, Energy and Transport Engineering

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

Bachelor of Engineering in Building Services Engineering – Years 1, 2, & 3

Bachelor of Science in Transport Management & Technology - Years 1, 2 & 3

Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering – Years 1, 2, 3 & 4

Bachelor of Engineering (Hons) in Sustainable Energy – Years 1, 2, 3 & 4

Bachelor of Engineering (Hons) in Building Energy Systems – Years 1 & 4

Bachelor of Science (Hons) in Transport Management & Technology – Year 4

Department of Electrical & Electronic Engineering

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

Bachelor of Engineering in Electrical Engineering – Years 1, 2 & 3

Bachelor of Engineering (Hons) in Electrical Power Systems – Years 1, 2 & 4

Bachelor of Engineering (Hons) in Electronic Systems Engineering – Years 1, 2, 3 & 4

Master of Engineering (Research)

Doctor of Philosophy

Centre of Craft Studies

Bachelor of Science in Craft Technology (Wood) with Business – Years 1 & 2

SCHOOL OF SCIENCE & INFORMATICS

Department of Applied Physics & Instrumentation

Bachelor of Science in Applied Physics & Instrumentation – Years 1, 2 & 3

Bachelor of Science (Hons) in Applied Physics & Instrumentation - Year 4

Bachelor of Science (Hons) in Environmental Science & Sustainable Technology – Years 1, 2 & 3

Bachelor of Science (Hons) in Instrument Engineering – Years 1, 2, 3 $\&\,4$

Master of Science (Research)

Doctor of Philosophy

Department of Biological Sciences

Bachelor of Science in Applied Biosciences with Biotechnology – Year 3

Bachelor of Science in Applied Biosciences - Years 1 & 2

Bachelor of Science in Biomedical Science - Year 3

Bachelor of Science in Food and Health Science – Year 3

Bachelor of Science (Hons) in Biomedical Science – Years 1, 2, 3 $\&\,4$

Bachelor of Science (Hons) in Herbal Science – Years 1, 2, 3 $\&\,4$

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

Bachelor of Science (Hons) in Pharmaceutical Biotechnology – Years 1, 2, 3 & 4

Master of Science (Research)

Master of Science in Computational Biology

Doctor of Philosophy

Department of Chemistry

Bachelor of Science in Analytical and Pharmaceutical Chemistry – Years 1, 2 & 3 Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance – Years 1, 2, 3 & 4 Doctor of Philosophy

Department of Computing

Higher Certificate in Science in Information Technology Support – Year 2

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

Bachelor of Science in Information Technology Support – Years 1 & 3

Higher Diploma in Science (Cloud Computing) - Year 5

Higher Diploma in Science (Cloud and Mobile Software Development) - Year 5

Bachelor of Science (Hons) in IT Management - Years 1, 2, 3 & 4

Bachelor of Science (Hons) in Software Development – Years 1, 2, 3 & 4

Bachelor of Science (Hons) in Software Development & Computer Networking – Years 1, 2, 3 & 4

Bachelor of Science (Hons) in Web Development - Years 1, 2 & 3

Master of Science (Research)

Master of Science in Networking and Security

Doctor of Philosophy

SCHOOL OF BUSINESS

Department of Accounting & Information Systems

Bachelor of Business in Accounting - Years 1, 2 & 3

Bachelor of Business in Business Administration – Years 1, 2 & 3

Bachelor of Science in Agriculture – Years 1, 2 & 3

Bachelor of Science in Horticulture - Years 1, 2 & 3

Bachelor of Business (Hons) in Accounting – Years 1, 2, 3 & 4

Bachelor of Business (Hons) in Information Systems – Years 1, 2, 3 & 4

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

Bachelor of Science (Hons) in Agriculture - Year 4

Bachelor of Science (Hons) in Horticulture - Year 4

Master of Business (Taught)

Master of Business in Accounting (Taught)

Department of Continuing Education

Bachelor of Arts in Human Resource Management

Bachelor of Business (Honours) Accounting – Year 4

ACCA Qualification

Department of Management & Marketing

Higher Certificate in Business (Business Studies) – Years 1 $\&\,2$

Bachelor of Business (Business & Management) – Year 3

Bachelor of Business in Marketing - Year 3

Bachelor of Business (Business Studies) - Years 1 & 2

Bachelor of Business (Hons) in Business Studies – Year 4

Bachelor of Business (Hons) in Marketing – Years 1, 2, 3 $\&\,4$

Master of Science Marketing Practice (Taught)

Master of Business (Research)

Doctor of Philosophy

SCHOOL OF HUMANITIES

Department of Social & General Studies

Bachelor of Business in Recreation & Leisure Management – Years 1, 2 & 3

Bachelor of Arts in Community Development – Years 1 & 3

Bachelor of Arts in Early Years Education – Years 1, 2 & 3

Bachelor of Arts in Social Care - Years 1, 2 & 3

Bachelor of Arts (Hons) in Early Years Education – Year 4

Bachelor of Arts (Hons) Montessori – Year 3

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

Master of Arts (Research)

Doctor of Philosophy

Department of Tourism & Hospitality Studies

Higher Certificate in Arts Culinary Studies – Years 1 & 2
Higher Certificate in Arts Hospitality Studies – Years 1 & 2
Bachelor of Business in Bar Management – Years 1, 2 & 3
Bachelor of Business in Culinary Arts – Years 1, 2 & 3
Bachelor of Business in Hospitality Management – Years 1, 2 & 3
Bachelor of Business in Tourism - Years 1, 2 & 3
Bachelor of Business (Hons) in Hospitality Management – Year 4
Bachelor of Business (Hons) in Business Studies (Tourism) – Year 4
Bachelor of Business (Hons) in Tourism – Years 1, 2, 3 & 4
Master of Business (Research)
Doctor of Philosophy

NATIONAL MARITIME COLLEGE OF IRELAND

Higher Certificate in Science (Nautical Science) – Years 1, 2 & 3
Bachelor of Engineering in Marine and Plant Engineering – Years 1, 2 & 3
Bachelor of Engineering in Marine Electrotechnology – Years 1 & 2
Bachelor of Science in Nautical Science – Years 1, 2 & 3
Bachelor of Science (Hons) in Nautical Science – Year 4
Certificate of Competency Deck – Chief Mate/Master

CIT CORK SCHOOL OF MUSIC

Bachelor of Music (Hons) – Years 1, 2, 3 & 4
Bachelor of Arts (Hons) in Popular Music – Year 1
Bachelor of Arts (Hons) in Theatre and Drama Studies – Year 1
Master of Arts in Music – Year 5
Master of Arts in Music and Technology – Year 5
Doctor of Philosophy

CIT CRAWFORD COLLEGE OF ART & DESIGN

Bachelor of Arts in Ceramic Design – Year 3
Bachelor of Arts in Fine Art – Year 3
Bachelor of Arts (Hons) in Ceramic Design – Year 4
Bachelor of Arts (Hons) in Applied Arts Ceramics – Years 1 & 2
Bachelor of Arts (Hons) in Fine Art – Years 1, 2, 3 & 4
Bachelor of Arts (Hons) in Fine Art and Ceramic Design – Years 3 & 4
Higher Diploma in Arts for Art & Design Teachers – Year 5
Master of Arts (Art and Process) (Taught)
Master of Arts (Research)
Master of Arts (Art Therapy) (Taught)

Department of Media Communications

Bachelor of Arts in Design Communications – Years 2 & 3
Bachelor of Arts (Hons) in Multimedia – Years 1, 2, 3 & 4
Bachelor of Arts (Hons) in Visual Communications – Years 1, 2, 3 & 4
Master of Arts (Public Relations with New Media) – Year 5
Master of Arts in Journalism with New Media – Year 5
Master of Arts (Taught)

3.6 Fáilte Ireland and Craft Approved Courses

FACULTY OF BUSINESS & HUMANITIES

Department of Tourism & Hospitality Studies

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

FACULTY OF ENGINEERING & SCIENCE

Centre of Craft Studies

Coded Welding Course ASME EN287

Coded Welding Course European Standard EN287

Welding Institute Certificate Welding and Fabrication Practice

National Craft Certificate – Carpentry and Joinery

National Craft Certificate – Construction Plant Fitting

National Craft Certificate – Electrical

National Craft Certificate – Fitting

National Craft Certificate – Metal Fabrication

National Craft Certificate – Motor Mechanics

National Craft Certificate – Painting and Decorating

National Craft Certificate – Plastering

National Craft Certificate – Plumbing

National Craft Certificate - Refrigeration and Air Conditioning



3.7 Approved Courses – Part-Time

The following part-time courses operated in the academic year 2012/13.

SCHOOL OF SCIENCE & INFORMATICS

Department of Applied Physics & Instrumentation

Higher Certificate in Science in Industrial Measurement and Control - Years 1 & 2 Bachelor of Science in Applied Physics and Instrumentation – Year 3 Single Subject Certificate (SPA) Astronomy Single Subject Certificate (SPA)
Bachelor of Science (Hons) in Applied Physics and Instrumentation – Year 4 Bachelor of Science (Hons) in Instrument Engineering – Year 4

Department of Chemistry

Certificate (SPA) Quality Assurance – Year 1 Excellence Ireland Diploma Quality Management – Years 1 & 2

Department of Biological Sciences

Doctor of Philosophy

Department of Computing

VMware Certificate VMware Technologies – Year 1
Certificate (SPA) Cloud Infrastructure Technologies – Year 1
CCNA Certificate CISCO Certified Network Associate (CCNA)
Higher Certificate in Science Computing – Years 1 & 2
CISCO IT Essentials 1 Certificate (CompTIA A+) Computer Hardware & Operating Systems – Year 1
CCNP Certificate CISCO Certified Network Professional (CCNP)
Bachelor of Science in Information Technology Support – Year 3
Higher Diploma in Science in Cloud Computing – Year 5
Higher Diploma in Science in Cloud and Mobile Software Development – Year 5
Higher Diploma in Science (Hons) in Cloud Computing – Year 4
Bachelor of Science (Hons) in IT Management – Year 4
Master of Science in Cloud Computing – Year 5

Master of Science in Networking and Security (Taught) – Year 5 Master of Science in Software Development (Taught) – Year 5

SCHOOL OF BUSINESS

Department of Accounting and Information Systems

Bachelor of Business Accounting - Year 3

Department of Continuing Education

Diploma Accounting and Business – Year 1
Certificate (SPA) Introductory Book-Keeping and Accounting
Higher Certificate in Business (Business Studies) – Years 1 & 2
Accounting Technician Accounting & Information Skills – Years 1 & 2
Bachelor of Business in Accounting – Year 3
Bachelor of Arts in Human Resource Management – Years 1, 2 & 3
Bachelor of Business in Management – Years 2 & 3
Bachelor of Business (Hons) in Business Studies – Year 4
Bachelor of Business (Hons) in Accounting – Year 4
Bachelor of Arts (Hons) in Human Resource Management – Year 4
Certified Public Accountants – Formation 2
Certified Public Accountants – Professional 1 and 2
Master of Business (Business Studies) (Taught) – Year 5

Department of Management & Marketing

Bachelor of Business in (Business Studies) - Year 2

SCHOOL OF HUMANITIES

Department of Social & General Studies

Certificate (SPA) Counselling Skills – Year 1 Higher Certificate in Arts in Counselling Skills – Year 2 Bachelor of Arts (Hons) in Counselling and Psychotherapy – Years 3 & 4 Master of Arts in Integrative Psychotherapy – Year 5 Doctor of Philosophy

Department of Tourism & Hospitality Studies

Certificate (SPA) Practical Bakery Techniques Certificate (SPA) Professional Bar Operations Bachelor of Arts in Culinary Arts – Year 3

SCHOOL OF BUILDING & CIVIL ENGINEERING

Department of Civil, Structural & Environmental Engineering

Higher Certificate in Engineering Civil Engineering – Year 2
Certificate (SPA) Environment and Energy Engineering – Year 1
Single Subject Certification (SPA) Level 7 Civil Engineering Modules
Bachelor of Engineering in Civil Engineering – Year 3
Master of Engineering in Structural Engineering (Taught) – Year 5
Master of Engineering in Civil Engineering (Environment and Energy) (Taught) – Year 5
Postgraduate Diploma in Engineering Civil Engineering (Environment and Energy) – Year 5
Single Subject Certification (SPA) Level 9 Civil Engineering Modules

Department of Construction

No Award (Bridging Studies) for Quantity Surveying

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

Department of Electrical & Electronic Engineering

City & Guilds Certificate Electro-Technical Technology 2330

Certificate (SPA) Application of Programmable Logic Controllers

Single Subject Certification (SPA) Level 8 Electronic and Electrical Modules

Master of Engineering (Research) – Year 5

Master of Engineering in Embedded Systems Engineering (Taught) – Year 5

Master of Engineering in Communications Systems (Taught) – Year 5

Department of Mechanical, Biomedical & Manufacturing Engineering

Certificate (SPA) Introduction to Sustainable Energy

Certificate (SPA) 3D CAD and Solid Modelling - Year 1

Society of Manufacturing Engineers Certificate Certified Manufacturing Engineer - Year 1

American Society for Quality Certificate Certified Quality Engineer - Year 1

American Society for Quality Certificate Certified Quality Technician

Certificate (SPA) Automation and Control Systems – Year 1

Certificate (SPA) Biomedical Device Manufacture – Year 1

Single Subject Certificate (SPA) Energy and The Environment

Single Subject Certificate (SPA) Mechatronics – Year 1

Single Subject Certificate (SPA) SCADA & Automation Systems – Year 1

Single Subject Certificate (SPA) Sustainable Energy in Buildings

Certificate (SPA) Lean Six Sigma Green Belt

Certificate (SPA) Sustainable Energy

Bachelor of Engineering in Mechanical Engineering – Year 3

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

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

Diploma (SPA) Project Management – Year 1

Certificate (SPA) Lean Six Sigma Black Belt

Single Subject Certificate (SPA) Wave Energy

Certificate (SPA) Project Management

Single Subject Certificate (SPA) Robotics

Single Subject Certificate (SPA) Project Management Techniques

Department of Process, Energy & Transport Engineering

Certificate (SPA) Chemical and Biopharmaceutical Process Operations – Year 1

Higher Certificate in Science Good Manufacturing Practice and Technology – Years 1 $\&\,2$

Certificate (SPA) Biopharmaceutical Processing - Year 1

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

No Award (Bridging Studies) Chemical and Biopharmaceutical Engineering – Year 1

Certificate (SPA) Chemical & Biopharmaceutical Engineering – Year 1

Bachelor of Engineering (Hons) in Chemical and Biopharmaceutical Engineering – Years 1 $\&\,3$

Single Subject Certificate (SPA) Chemical Process Safety – Year 1

NATIONAL MARITIME COLLEGE OF IRELAND

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

Bachelor of Engineering in Marine and Plant Engineering – Year 3

Certificate (SPA) Senior Command Operations

Single Subject Certificate (SPA) Chemical Process Safety – Year 1

Certificate of Competency Chief Mate for Vessels of less than 3000 tonnage

Master Deck Refresher Course (SPA) Deck Refresher Course

Certificate of Competency Marine Engineering – Second Engineer Officer/Chief Engineer

 $\label{lem:continuous} \textbf{Certificate of Competency Deck-Officer of the Watch Navigation}$

Certificate of Competency Marine Engineering – Officer of the Watch

TEACHING & LEARNING UNIT

Master of Arts in Teaching and Learning in Higher Education (Taught) – Year 5

CIT CRAWFORD COLLEGE OF ART & DESIGN

Certificate (SPA) in Arts Participation and Development – Year 1 Certificate (SPA) in Principles and Theory of Art Therapy – Year 1

Certificate (SPA) in Group Arts Facilitation – Year 1 Certificate (SPA) in Fine Art Textiles – Year 1

Master in Arts and Design Education (Taught) - Year 1

Master in Arts Teaching Visual Arts for Primary & Early Years Education – Year 5

Master in Arts Art Therapy (Taught) – Year 5

Single Subject Certification (SPA) in Arts Modules – Year 1

Drawing from Life Drawing Painting Folder Preparation Life Drawing Photography Pottery 1 & 2

Stained Glass & Stained Glass 2

Textiles

Department of Media Communications

Certificate (SPA) Media Production – Year 1 Higher Diploma in Arts Public Relations – Year 4 Master of Arts Public Relations with New Media – Year 5

CIT CORK SCHOOL OF MUSIC

Piano Trombone
Organ Euphonium/Tuba
Harpsichord Percussion

Piano Ensemble Flute Band/Ensemble
Jazz Piano Youth Music Project

Organ Keyboard Skills
Violin
Suzuki Violin
Viola
Speech (Class)
Speech (Individual)

Cello Drama

Suzuki Cello Recorder Ensemble
Double Bass Wind Ensemble
Chamber Music Concert Band
Orchestra Jazz Big Band
Guitar Junior Bands

Junior Guitar Ensemble Percussion Ensemble Brass Ensemble Harp Recorder **Woodwind Ensemble** Flute Horn Ensemble Oboe **Vocal Support Studies** Clarinet Irish Trad Group Bassoon Musicianship Saxaphone Theory (Individual)

Horn Choir

Trumpet

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.

Department of Education & Skills

Technological Certificates

The Institute offers technological certificate courses for part-time students through evening courses. These certificates are validated by the Department of Education & Skills.

These courses are provided in the following areas, Building, Automobile Engineering, Mechanical Engineering, and Electrical Engineering.

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 FETAC.

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 Studies 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.

Additional Recognition of CIT Courses

City & Guilds of London Institute (CGLI)

A number of part-time courses conducted by the Institute in Engineering are also accredited by the City & Guilds of London Institute as the courses are designed to meet the required content and standards.

The Institute has obtained additional recognition for its courses by professional bodies, in order to enhance the professional standing of graduates and to provide them with the fullest possible advantages for employment and career development. The main recognitions obtained are:

Bachelor of Science (Hons) in Applied Physics & Instrumentation

- Institute of Physics
- The Teaching Council

Bachelor of Science (Hons) in Biomedical Science

- Institute of Biomedical Sciences
- Academy of Medical Laboratory Science

Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance

- Institute of Chemistry of Ireland
- Royal Society of Chemistry
- The Teaching Council

57

Bachelor of Science (Hons) in Applied Biosciences

• The Teaching Council

Bachelor of Business (Hons)/Bachelor of Business in Accounting/Higher Certificate in Business/ Higher Certificate in Accounting

- · Chartered Accountants Ireland
- Chartered Institute of Management Accountants (CIMA)
- Institute of Certified Public Accountants in Ireland (ICPAI)
- Association of Chartered Certified Accountants (ACCA)

(Exemptions from a variety of requirements of these professional bodies)

Bachelor of Business (Hons)/Bachelor of Business in Marketing/Higher Certificate in Business

Marketing Institute

(Exemptions are granted depending on specialism and level)

Bachelor of Arts in Human Resource Management

• Chartered Institute of Personnel & Development (CIPD)

Master of Arts in Human Resource Management

• Chartered Institute of Personnel & Development (CIPD)

Bachelor of Business in Hospitality Management

• Irish Hospitality Institute

Bachelor of Arts (Hons) in Visual Communication

• The Teaching Council

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

- Institute of Designers of Ireland
- Crafts Council of Ireland
- The Teaching Council

Bachelor of Arts (Hons) Fine Art

- Visual Artists Ireland
- The Teaching Council

Higher Diploma in Arts for Art and Design Teachers

• Recognised and Accredited by the Teaching Council of Ireland

Master of Arts in Art Therapy

- Irish Association of Creative Art Therapists
- European Association of Art Therapists

Bachelor of Science (Hons)/Bachelor of Science in Nautical Science

• Department of Transport

 $(A\ number\ of\ short\ courses\ embedded\ in\ these\ programmes\ are\ accredited\ for\ Certificate\ of\ Competency\ purposes)$

Bachelor of Science in Quantity Surveying

- Chartered Institute of Building
- Society of Chartered Surveyors

Bachelor of Science in Construction Management

· Chartered Institute of Building

Bachelor of Science in Architectural Technology

• Chartered Institute of Building

Bachelor of Science (Hons) in Architectural Technology

• Chartered Institute of Building

Bachelor of Science in Interior Architecture

· Chartered Institute of Building

Bachelor of Science (Hons) in Architecture (jointly with UCC)

- The Royal Institute of the Architects of Ireland
- · Chartered Institute of Building

Master of Architecture (jointly with UCC)

• The Royal Institute of the Architects of Ireland

Higher Certificates/Bachelor Degrees in Electrical Engineering, Building Services Engineering

- Engineers Ireland (Associate+)
- Chartered Institution of Building Services Engineers

Higher Certicates/Bachelor Degrees in Biomedical/Civil/Electronic/Mechanical/ Manufacturing Engineering

• Engineers Ireland (Associate+)

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

• Engineers Ireland (Associate+)

Bachelor of Engineering (Hons) in Sustainable Energy Engineering

• Energy Institute (Chartered*)

Bachelor of Engineering (Hons) in Chemical and Biopharmaceutical Engineering

• Institution of Chemical Engineers (IChemE)

Bachelor of Engineering (Hons) in Structural Engineering

- Institution of Structural Engineers
- · Chartered institute of Building

Master of Engineering in Structural Engineering

• Engineers Ireland (Chartered*)

Master of Engineering in Civil Engineering (Environment & Energy)

• Engineers Ireland (Provisional Accreditation)

Bachelor of Engineering in Marine & Plant Engineering

- Engineers Ireland (Associate+)
- Department of Transport

(A number of short courses embedded in the programme are accredited for Certicate of Competency purposes)

Bachelor of Engineering in Civil Engineering

- Engineers Ireland (Associate+)
- · Chartered Institute of Building
- * Eligible following appropriate experience
- + Accredited by Engineers Ireland and covered by the Sydney Accord which is an international agreement among bodies responsible for accrediting Engineering Technologists or Incorporated Engineers. It recognises the substantial equivalency of programs accredited by those bodies and recommends that graduates of programs accredited by any of the signatory bodies be

59

recognised by the other bodies as having met the academic requirements for entry to the practice of engineering technology. Signatories to this agreement are Australia, Canada, Hong Kong China, Ireland, Korea, New Zealand, South Africa, United Kingdom, and United States of America.

Accreditation of CIT Engineering Honours Degrees

- Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering
- Bachelor of Engineering (Hons) in Structural Engineering
- Bachelor of Engineering (Hons) in Mechanical Engineering
- Bachelor of Engineering (Hons) in Biomedical Engineering

These honours degrees are fully accredited by Engineers Ireland and graduates are eligible for corporate membership with Chartered Engineer (CEng) status following appropriate experience.

International Recognition

European Engineer: These honours degrees fulfil the Fédération Européenne d'Associations Nationales d'Ingenieurs (FEANI) Group One registration requirements and thus meet the academic requirements for the award of the title European Engineer (Eurlng). Such engineers may practice in most European countries.

Washington Accord: As these degrees are accredited by Engineers Ireland (the Irish accreditation body) they also fulfil the requirements for mutual recognition by the national accreditation bodies that have signed the Washington Accord, i.e. USA, United Kingdom, Canada, Chinese Taipei, Australia, New Zealand, Japan, Korea, Malaysia, Singapore, Russia, South Africa, Hong Kong China, Turkey, and Ireland.

3.9 External Examiners

FACULTY OF BUSINESS & HUMANITIES

SCHOOL OF BUSINESS

Department of Accounting & Information Systems

Ms Joanne Blennerhassett

- · Bachelor of Business in Accounting
- Bachelor of Business (Hons) in Accounting
- Bachelor of Business (Hons) in Information Systems
- Bachelor of Business (Hons)
- Bachelor of Business in Business Administration
- Bachelor of Science in Agriculture
- · Bachelor of Science in Horticulture

Dr Peter Carew

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

Ms Patricia Doherty

• Bachelor of Business in Business Administration

Mr Desmond Gibney

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

Prof. Jimmy Hill

• Modules in Entrepreneurship & Innovation

Prof. Peter Jones

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

Ms Linda McWeeney

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

Ms Fiona Malone

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

Mr John Mulhern

- Bachelor of Science in Agriculture
- Bachelor of Science in Horticulture

Dr Larry Stapleton

- · Master of Business in Accounting
- · Master of Business in Information Systems

Mr Mike Wilman

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

Department of Continuing Education

Prof. Aidan Daly

• Master of Business (Taught)

Dr Pio Fenton

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

Mr Conor Folev

· Bachelor of Business in Management

Ms Deirdre O'Riordan

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

Or Eileen Reedy

- · Bachelor of Arts in Human Resource Management
- Bachelor of Science in Agriculture
- · Bachelor of Science in Horticulture
- Bachelor of Business in Business Administration
- · Bachelor of Business (Hons) In Accounting
- Bachelor of Business (Hons) in Information Systems

Ms Hazel Shanahan

• Bachelor of Arts in Human Resource Management

Department of Management & Marketing

Ms Sharon Cavanagh

 Spanish Module - (Bachelor of Business & Marine Courses)

Mr Conor Foley

• Bachelor of Business in Business & Management

Mr Cyril Gavaghan

- · Bachelor of Business
- Bachelor of Business (Hons)
- · Bachelor of Business in Marketing
- · Bachelor of Business (Hons) in Marketing

Dr Mary Ann Kenny

· German Module in all programmes

Dr Eamon Maher

· French Module in all programmes

Mr Donald O'Driscoll

· Bachelor of Business

Mr Finian O'Driscoll

- · Bachelor of Business
- Bachelor of Business (Hons)
- · Bachelor of Business in Marketing
- Higher Certificate in Business

Mr Mike Wilman

- Higher Certificate in Business
- · Bachelor of Business
- · Bachelor of Business (Hons) in Marketing
- Bachelor of Business (Hons)
- Master of Science in Marketing Practice

SCHOOL OF HUMANITIES

Department of Social & General Studies

Ms Teresa Browne

· Bachelor of Arts in Social Care

Dr Fiona Chambers

· Bachelor of Business in Recreation and Leisure

Dr John Considine

• Bachelor of Arts (Hons) in Social Care

Ms Margaret Creed

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

Dr Denice Cunningham

• Bachelor of Arts in Early Years Education

Dr Maurice Devlin

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

Ms Eilis Duggan

- · One Year Certificate in Counselling Skills
- Higher Certificate in Counselling Skills
- Bachelor of Arts in Counselling & Psychotherapy
- Bachelor of Arts (Hons) in Counselling & Psychotherapy
- Master of Arts in Integrative Psychotherapy

Dr Eilionoir Flynn

- · Bachelor of Arts in Social Care
- Bachelor of Arts (Hons) In Social Care
- · Bachelor of Arts in Early Years Education

Dr Ann Marie Halpenny

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

Dr Clodagh Harris

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

Mr John McHugh

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

Ms Marie O'Dwyer

 Bachelor of Business in Recreation & Leisure Management

Dr Sharon Phelan

- Bachelor of Arts in Social Care
- Bachelor of Arts in Early Years Education

Ms Cynthia Ransley

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

Dr Anna Ridgway

• Bachelor of Arts (Hons) in Montessori Education

Ms Annie Sampson

• Bachelor of Arts in Social Care

Ms Karen Sugrue

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

Department of Tourism & Hospitality Studies

Mr Michael Conway

- Higher Certificate in Culinary Studies
- Advanced Certificate in Professional Cookery Accelerated and Day Release

Mr Garrett Edwards

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

Ms Maria Roddy Freyne

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

Mr Colin Gilligan

• Higher Certificate in Arts in Hospitality Studies

Mr Raymond Keaney

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

Mr Mark Murphy

• Bachelor of Business in Culinary Arts

Mr Dan Murphy

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

Mr Frank O'Connor

• Bachelor of Business in Culinary Arts

Mr Stephen Ryan

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

FACULTY OF ENGINEERING & SCIENCE

SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

Department of Electrical & Electronic Engineering

Mrs Mary Desmond

- · Bachelor of Engineering in Electrical Engineering
- Bachelor of Engineering (Hons) in Electrical Power Systems

Mr Mark Kelleher

- Master of Engineering in Embedded Systems Engineering
- Master of Engineering in Telecommunications Engineering

Mr Ian Kennedy

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

Mr Colm Murray

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

Mr Traoloch O'Brien

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

Mr Daniel O'Connell

- Master of Engineering in Embedded Systems Engineering
- Master of Engineering in Telecommunications Engineering

Department of Mechanical, Biomedical & Manufacturing Engineering

Mr Ruairí Cullinane

- Bachelor of Engineering in Biomedical Engineering
- Bachelor of Engineering (Hons) in Biomedical Engineering
- · Certificate in Engineering in Biomedical Manufacturing

Dr Brian Lee

· Certificate in Lean Six Sigma Green Belt

Prof. Seán Leen

 Bachelor of Engineering (Hons) in Mechanical Engineering

Mr Kevin McCarthy

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

Mr Michael McKeon

- Bachelor of Engineering in Mechanical Engineering
- Certificate in Automation & Control Systems (Level 7)

Dr Laoise McNamara

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

Mr Tom O'Connoi

 Bachelor of Engineering (Hons) in Mechanical Engineering

Mr Ger Reilly

- Bachelor of Science (Hons) in Advanced Manufacturing Technology
- Certificate in Automation & Control Systems (Special Purpose Award)
- Bachelor of Science (Hons) in Process Plant Technology

Dr Gerry Woods

- Bachelor of Engineering in Mechanical Engineering
- Certificate in Automation and Control Systems (Special Purpose Award)

Department of Process, Energy & Transport Engineering

Mr Declan Allen

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

Mr Gordon Bryan

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

Mr Conor Buckley

• Bachelor of Engineering (Hons) in Sustainable Energy

Mr Richard Cadbury

 Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering

Dr Ben Costelloe

 Bachelor of Engineering (Hons) in Building Energy Systems

Dr Stephen Fitzpatrick

- Higher Certificate in Good Manufacturing Practice and Technology
- Bachelor of Science in Good Manufacturing Practice and Technology

Prof. Neil J. Hewitt

- Bachelor of Engineering in Building Services Engineering
- Bachelor of Engineering (Hons) in Building Energy Systems
- · Higher Certificate in Building Services Engineering

Mr Paul Kenny

- Bachelor of Engineering (Hons) in Sustainable Energy
- Certificate in Sustainable Energy (Level 6)
- Certificate in Sustainable Energy (Level 7)

Mr Con Leddy

- Higher Certificate in Building Services Engineering
- Bachelor of Engineering in Building Services Engineering
- Bachelor of Engineering (Hons) in Building Energy Systems

Dr Gervase McAleavey

 Bachelor of Engineering (Hons) in Chemical & Biopharmaceutical Engineering

Ms Bernadette Whelan

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

SCHOOL OF BUILDING & CIVIL ENGINEERING

Department of Architecture

Ms Denise Dillon

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

Prof. Mark Dorrian

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

Prof. Lorraine Farrelly

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

Prof. Murray Fraser

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

Ms Louisa Hutton

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

Ms Sam Mayes

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

Ms Valerie Mulvin

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

Mr Cathal O'Boyle

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

Department of Construction

Mr Paul Greaney

• Master of Science in Construction Project Management

Mr David Higgins

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

Dr Mike Murray

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

Mr Declan O'Brien

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

Mr Mark Poland

• Master of Science in Construction Project Management

Ms Rita Scully

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

Department of Civil, Structural & Environmental Engineering

Mr Brian Byrne

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

Dr Michael Creed

· Master of Engineering in Structural Engineering

Mr Adrian Cunningham

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

Prof. Padraic O'Donoghue

- Master of Engineering in Civil Engineering (Environment and Energy)
- PGDip in Civil Engineering in Environment and Energy

Mr Jack O'Leary

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

Mr PJ Rudden

- Master of Engineering in Civil Engineering (Environment and Energy)
- PGDip in Civil Engineering in Environment and Energy

Mr Pearse Sutton

• Master of Engineering in Structural Engineering

Dr Roger West

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

SCHOOL OF SCIENCE & INFORMATICS

Department of Biological Sciences

Dr Jeremy Bird

• Bachelor of Science (Hons) in Pharmaceutical Biotechnology

Dr Jakki Cooney

· Master of Science in Computational Biology

Dr Gillian Gardiner

- · Bachelor of Science in Food and Health Science
- Bachelor of Science in Applied Biosciences & Biotechnology

Dr Julia Green

Bachelor of Science (Hons) in Herbal Science

Dr Anne Nelson

• Bachelor of Science in Food and Health Science

Mr Pádraig O'Sullivan

· Bachelor of Science in Biomedical Science

Prof. Richard O'Kennedy

• Bachelor of Science (Hons) in Biomedical Science

Prof. Torres Sweeney

 Bachelor of Science (Hons) in Nutrition and Health Science

Department of Mathematics

Prof. Eamonn Murphy

· Modules in Statistics

Dr Jeremiah Gerard Murphy

· Modules in Mathematics

Mr Ciaran O'Sullivan

Modules in Mathematics

Department of Computing

Dr Joan Condell

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

Dr Thomas Dowling

• Master of Science in Software Development

Ms Erica Gill

 Bachelor of Science (Hons) in Software Development and Computer Networking

Dr Anthony Keane

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

Mr Joseph Lynam

Bachelor of Science in Computing

Prof. Paul McKevitt

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

Mr Aidan F. Quilligan

- Higher Diploma in Science in Software Development
- Bachelor of Science (Hons) in Software Development

Dr David Sinclair

· Master of Science in Networking & Security

Dr David White

- Higher Diploma in Science in Cloud & Mobile Software Development
- Higher Diploma in Science in Cloud Computing
- Bachelor of Science (Hons) in Cloud Computing
- · Master of Science in Cloud Computing



Department of Chemistry

Ms Jill Ahern

- Bachelor of Science in Analytical and Pharmaceutical Chemistry
- Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance

Dr Claire Lennon

- Bachelor of Science in Analytical & Pharmaceutical Chemistry
- Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance

Dr Carmel Roche

- Bachelor of Science in Analytical and Pharmaceutical Chemistry
- Bachelor of Science (Hons) in Analytical Chemistry with Quality Assurance

Department of Applied Physics & Instrumentation

Dr Siobhán Daly

- Bachelor of Science in Applied Physics & Instrumentation
- Bachelor of Science (Hons) in Applied Physics & Instrumentation
- Bachelor of Science (Hons) in Instrument Engineering
- Bachelor of Science (Hons) in Environmental Science & Sustainable Technology

Mr William Power

- Higher Certificate in Science in Industrial Measurements & Control
- Bachelor of Science in Applied Physics & Instrumentation
- Bachelor of Science (Hons) in Applied Physics & Instrumentation
- Bachelor of Science (Hons) in Instrument Engineering
- Bachelor of Science (Hons) in Computerised Instrument Systems

NATIONAL MARITIME COLLEGE OF IRELAND

Mr Ciaran Callan

• Bachelor of Engineering in Marine & Plant Engineering

Capt. Aedan Jameson

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

Mr Colm McGinley

• Higher Certificate in Naval Leadership & Management

Mr Aidan MacSweeny

- Bachelor of Engineering in Marine & Plant Engineering
- Bachelor of Engineering in Marine Electrotechnology

Comdt. Pádraig Macklin

 Higher Certificate in Leadership, Management, & Naval Studies

Capt. Thomas O'Callaghan

- Bachelor of Science in Nautical Studies
- Bachelor of Science (Hons) in Nautical Studies
- · Higher Certificate in Nautical Studies

Mr Gerard F. O'Donnell

Bachelor of Engineering in Marine Electrotechnology

Comdt. Ray O'Lehan

 Bachelor of Arts in Leadership, Management, & Naval Studies

Capt. Paul Roche

· Higher Certificate in Nautical Studies

Mr Edward Sweeney

 Bachelor of Business in Supply Chain & Transport Management

CENTRE OF CRAFT STUDIES

Mr Simon Dennehy

 Bachelor of Science in Craft Technology (Wood) with Business

Mr Michael McKeon

Certificate in Craft Transferable Studies

Mr Kevin Ryan

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

TEACHING & LEARNING UNIT

Dr John Dallat

• Certificate in Teaching & Learning in Higher Education

Mr Neil Ouinlan

• Certificate in Teaching & Learning in Higher Education

CIT CORK SCHOOL OF MUSIC

Prof Michael Peter Alcorn

• Master of Arts in Music & Technology (Taught)

Ms Mia Cooper

• Bachelor of Music (Hons)

Dr Gareth Cox

Bachelor of Music (Academic Studies)

Dr Derek Cremin

• Bachelor of Arts (Hons) in Popular Music

Mr Michael D'Arcy

• Master of Arts in Music (Taught)

Ms Bríd Grant

• Master of Arts in Music (Taught)

Mr Paul Meade

• Bachelor of Arts (Hons) in Theatre & Drama Studies

CIT CRAWFORD COLLEGE OF ART & DESIGN

Ms Patsey Bodkin

- Master of Arts in Art and Design Education
- Master of Arts in Teaching Visual Arts for Primary and Early Years Education
- · Higher Diploma in Arts for Art and Design Teachers

Mr Brian Connolly

Master of Arts in Art & Process

Ms Breda Lynch

- · Bachelor of Art in Fine Art
- Bachelor of Arts (Hons) in Fine Art

Mr Declan Long

· Master of Arts in Art & Process

Mr John Meaney

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

Ms Amanda Mullins

· Higher Diploma in Arts for Art and Design Teachers

Ms Eileen McCourt

- Master of Arts in Art Therapy
- · Certificate in Principles and Theory of Art Therapy

Mr Ronan McCrea

· Bachelor of Arts (Hons) in Fine Art

Ms Denise MacGiollari

• Master of Arts in Art Therapy

Ms Anna Moran

• Bachelor of Arts in Ceramic Design

Mr Mark O'Kelly

· Bachelor of Arts (Hons) in Fine Art

Mr Neil Read

- Bachelor of Arts (Hons) in Ceramic Design
- Bachelor of Arts in (Hons) Applied Art Ceramic

Mr Terry Shave

- Bachelor of Arts in Fine Art
- · Bachelor of Arts (Hons) in Fine Art

Dr Tim Stott

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

Department of Media Communications

Ms Clare Bell

• Bachelor of Arts (Hons) in Visual Communications (Ab Intio)

Ms Mary Dundon

• Master of Arts in Journalism with New Media

Mr Michael Connerty

• Bachelor of Arts (Hons) in Visual Communications

Ms Anita Heavey

• Bachelor of Arts in (Hons) Visual Communications

Mr David Joyce

- Bachelor of Arts in Design Communications
- Bachelor of Arts (Hons) in Visual Communications

Ms Denise McEvoy

• Bachelor of Arts in Multimedia

Ms Pauline Madigan

• Higher Diploma in Public Relations

Mr Kieran Nolan

· Bachelor of Arts (Hons) in Multimedia

Mr Darragh O'Toole

• Bachelor of Arts (Hons) in Visual Communications

Ms Niamh Ward

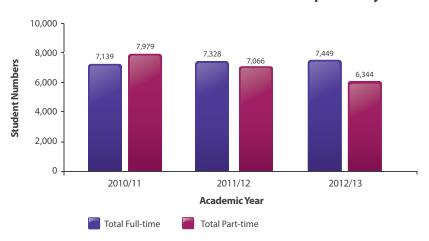
· Master of Arts in Public Relations with New Media

3.10 Student Statistics

Enrolment Statistics for 2012/13 and the two previous years

| | 2010/11 | 2011/12 | 2012/13 |
|-----------------|---------------|--------------|--------------|
| Total Full-time | 7,139 | 7,328 | 7,449 |
| Total Part-time | <u>7,979</u> | <u>7,066</u> | <u>6,344</u> |
| OVERALL TOTAL | <u>15,118</u> | 14,394 | 13,793 |

Enrolment Statistics for 2012/13 and the two previous years



Enrolments by Gender & Attendance Mode for 2012/13

| | Male | Female | Total |
|-------------------|--------------|--------------|--------------|
| FULL-TIME | | | |
| Non-Mature | 3,845 | 2,427 | 6,272 |
| Mature | 754 | 423 | 1,177 |
| TOTAL | <u>4,599</u> | 2,850 | 7,449 |
| PART-TIME | | | |
| Fáilte Ireland | 39 | 15 | 54 |
| Craft Apprentices | 616 | 0 | 616 |
| Evening Courses | 2,515 | 3,159 | 5,674 |
| TOTAL | <u>3,170</u> | <u>3,174</u> | <u>6,344</u> |
| OVERALL TOTAL | <u>7,769</u> | 6,024 | 13,793 |

Enrolment Statistics by Gender for three academic years

| | 2010/11 | 2011/12 | 2012/13 | |
|--------|--------------|--------------|---------|--|
| Male | 8,818 | 7,675 | 7,769 | |
| Female | <u>6,300</u> | <u>6,719</u> | 6,024 | |
| Total | 15,118 | 14,394 | 13,793 | |

Enrolment Statistics by Gender for three academic years

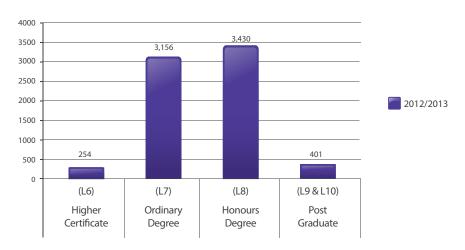


Breakdown of Whole-Time Equivalent Student Numbers – Higher Certificate, Ordinary Degree, Honours Degree, and Postgraduate by Discipline for 2012/13

| | Higher Certificate (L6) | Ordinary Degree (L7) | Honours Degree (L8) | Post Graduate (L9 & L10) | Totals |
|---|----------------------------|-------------------------|------------------------|-----------------------------|--------|
| Agriculture and Veterinary | 0 | 154 | 32 | 0 | 186 |
| Education | 0 | 26 | 10 | 0 | 36 |
| Engineering, Manufacturing and Construction | 21 | 746 | 756 | 75 | 1,598 |
| Health and Welfare | 0 | 416 | 312 | 6 | 734 |
| Humanities and Arts | 0 | 45 | 709 | 165 | 919 |
| Science, Mathematics and Computing | 49 | 468 | 892 | 73 | 1,482 |
| Services | 136 | 627 | 94 | 4 | 861 |
| Social Sciences, Business and Law | <u>48</u> | 674 | 625 | 78 | 1,425 |
| TOTAL | 254 | 3,156 | 3,430 | <u>401</u> | 7,241 |

| | Higher | Ordinary | Honours | Post Graduate |
|-------|------------------|-------------|-------------|---------------|
| | Certificate (L6) | Degree (L7) | Degree (L8) | (L9 & L10) |
| TOTAL | 254 | 3,156 | 3,430 | 401 |

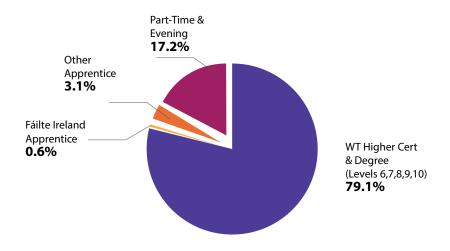
Breakdown of Levels of Whole-Time Equivalent Higher Certificate, Ordinary Degree, Honours Degree and Postgraduate Total Student Numbers for 2012/13



Student WTE Percentage Distribution – Cork Institute of Technology for 2012/13

| | Actual | WTE |
|---|--------------|--------------|
| WT Higher Cert & Degree (Levels 6,7,8,9,10) | 7,449 | 7,242 |
| Fáilte Ireland Apprentice | 54 | 54 |
| Other Apprentice | 616 | 280 |
| Part-Time & Evening | <u>5,674</u> | <u>1,575</u> |
| Total | 13,793 | <u>9,151</u> |

Student WTE Percentage Distribution - Cork Institute of Technology for 2012/13





3.11 Student Prizes

- 1. The Ireland**Skills** Competitions 2012 took place at the Institute week commencing 10 September 2012. The Awards Ceremony took place on 14 September 2012 and was attended by:
 - (i) Lord Mayor of Cork, Cllr John Buttimer
 - (ii) Minister Kathleen Lynch TD, Minister for Disability, Older People, Equality & Mental Health
 - (iii) Mayor of the County of Cork, Cllr Barbara Murray

The competitors are master craft persons and the country's best in 11 skills areas:- Automobile Technology, Carpentry, Construction Plant Fitting, Electrical Installations, Industrial Control, Joinery, Mechatronics, Metal Fabrication, Plastering, Refrigeration, and Welding. All finalists had already won preliminary competitions in the various Institutes of Technology around the country.

- 2. CIT graduate, **William Holland**, was selected as the first stage finalist in the first short-list of 150 international finalists from over 500 international entries for the Dyson International Design Award. His project entitled "Design and Development of an Innovative Outsole for the Enhancement of Support and Performance in Sports Footwear" is available for viewing on www. youtube.com/watch?v=EDaQdyjQjj4
- 3. On 15 October 2012, the Institute received notice of CIT graduate, **Eoin O'Donovan**, of Bord Gáis Energy being one of six short-listed for Engineers Ireland Chartered Engineer of the Year 2012. Eoin is a Technical Operations and Maintenance Manager for Renewables at Bord Gáis Energy. Eoin's project concerns the Delivery of a Sustainable Operations and Maintenance Management Model in the Wind Industry. Eoin graduated in 2003 from CIT with a First Class Honours Bachelor of Engineering in Mechanical Engineering Degree. The six short-listed finalists presented to a distinguished judging panel in Dublin on 1 November 2012.
- 4. The annual Faculty of Business & Humanities Awards took place on 18 October 2012 in the CITTourism & Hospitality building, Bishopstown Campus. 32 awards were presented on the night.
- 5. Conferring of Degrees and Other Awards for the Faculty of Business & Humanities took place in CIT Bishopstown Campus on 19 October 2012. There were four conferring sessions and 1,192 graduands obtained their parchments.
- 6. Conferring of Degrees and Other Awards for the Faculty of Engineering & Science and CIT Crawford College of Art & Design took place in CIT Bishopstown Campus on 22 October 2012. There were four conferring sessions. 931 graduands from the Faculty of Engineering and Science as well as 211 graduands from CIT CCAD obtained their parchments. Also there were two joint awards conferred:
 - BA in Multimedia Hochschule Darmstadt/CIT
 - MSc in Biomedical Sciences CIT/UCC
- 7. The Institute's first stand-alone Postgraduate Conferring Ceremony took place in CIT Bishopstown Campus on 23 October 2012. Twenty-seven graduands (12 Doctorates and 15 Masters) obtained their parchments.
- 8. Conferring of Degrees on students of CIT CSM and CIT/UCC Cork Centre for Architectural Education (CCAE) took place in CIT CSM on 25 October 2012. Forty-three graduands from CIT CSM as well as 48 students from CCAE obtained their parchments for the CIT/UCC joint awards in:
 - Bachelor of Science (Honours) in Architecture
 - Master of Architecture
- 9. The National Institute of Designers in Ireland Graduate Design Awards announced **Sinéad Crowley**, a CIT graduate from the BSc (Hons) in Interior Architecture as winner of the National Interior Award. Sinéad's final year project transformed the Shannonvale Flour Mill, West Cork into "The Re-Discovery Centre", an environmental awareness and education centre.

10. The Engineers Ireland Excellence Awards 2012 were presented at a ceremony held on 9 November 2012 at the Four Seasons Hotel, Ballsbridge, Dublin. The following CIT graduates were very much to the forefront of the accolades presented at the awards ceremony.

| Graduate Name | Company | Award Presented |
|---|---|---|
| Alan Bateman , CIT Mechanical Engineering Graduate | Automation and Control Engineering Manager at Janssen Pharmaceuticals | Was presented on behalf of Janssen Supply Chain (Ireland) with the Engineers Ireland Continuing Professional Development (CPD) Company of the Year Award |
| Danny Johnston , CIT Mechanical Engineering Graduate | Engineering Manager, OpenHydro Technology | Was part of a four man team from OpenHydro presented with the Engineers Ireland Technology of the Year Award |
| Eoin O'Donovan , CIT Mechanical Engineering Graduate | Technical Operations and Maintenance Manager for Renewables at Bord Gáis Energy | Was short-listed to just six very impressive finalists for Engineers Ireland Chartered Engineer of the Year 2012 from over 450 nominated engineers nationwide and internationally |

11. Congratulations to cello student in CIT CSM, **Sinéad O'Halloran** on her success at the final of the Father Frank Maher Scholarship Competition held in Castleknock College in Dublin on 9 November 2012.

Sinead is a Leaving Certificate student at Regina Mundi College, Cork and is a cello student in CIT CSM studying with Christopher Marwood of the Vanbrugh Quartet. Her prize was a bursary of €2,000 to be used to help finance her further music education.

12. "Of Light and Structure", the debut solo exhibition by CIT CCAD graduate, **Cassandra Eustace**, was officially launched on 12 November 2012 in the James Barry Exhibition Centre in CIT. Winner of the 2012 CIT ArtsFest Prize, Cassandra made this body of work specifically for the James Barry Exhibition Centre, responding to the space and context.

The exhibition, which was presented as part of Science Week 2012, was open to the public from 12 – 17 November 2012.

- 13. **Mark Casey** has received ISA Ireland's 2012 award for the best final Honours Degree student studying applied physics or instrumentation in Ireland. Open to all third-level Institutions on the island of Ireland, Mark was selected for his academic excellence and the quality of his final year project. ISA Ireland is the Irish section of the International Society of Automation (originally the Instrument Society of America). Mark graduated in October 2012 with a first class honours degree in Applied Physics & Instrumentation and is employed by multinational PACIV's Irish operation.
- 14. On 12 December 2012, at an event in Farmleigh House, Dublin, Mr Gay Byrne presented **CIT Students' Union Safety Week 2012** with a "Road Safety Authority (RSA) Leading Lights in Road Safety Award in Education (Third-Level) Category." Beating off stiff competition from other third-level institutes across Ireland, CIT Students' Union Safety Week 2012 was chosen as the award recipient because of the excellent work done to help save lives and prevent serious injuries on our roads.
- 15. The 2013 Ireland **Skills** National Competitions took place on 14 December 2012. The event was attended by:
 - i. The Deputy Lord Mayor, Cllr Joe Kavanagh
 - ii. Ms Kathleen Lynch TD, Minister for Disability, Older People, Equality & Mental Health
 - iii. Mayor of the County of Cork, Cllr Barbara Murray

The following skills groups were presented with awards:

Automobile Engineering, Carpentry, Construction Plant Fitting, Electrical Installation, Industrial Control, Joinery, Metal Fabrication, Plastering, Refrigeration and Welding.



- 16. The **CIT CoderDojo** chapter had its first national success at the recent BT Young Scientist Exhibition. At the awards ceremony three of the students from Coláiste Choilm won the HP "Innovation4Good" award. These students only started coding a number of months ago through CIT CoderDojo. For their project "Revision Precision" they developed an APP to promote productive revision techniques.
- 17. The CIT Athletics Club had much to celebrate in February with the following great performances by students:
 - (i) **Sinéad O'Connor** (Department of Social & General Studies), taking the title of female intervarsity champion for the triple iump.
 - (ii) Rachel O'Shea (Department of Social & General Studies), taking third place in the 800m.
 - (iii) Cathal Owens (Department of Mechanical, Biomedical & Manufacturing Engineering) won third place in the 400m.
 - (iv) **Thomas Houlihan** (Department of Civil, Structural & Environmental Engineering) was victorious in the Pole Vault with a height of 4.6m.
 - (v) Cullen Lynch (Department of Accounting & Information Systems) won second place in the 1500m.
 - (vi) the **Men's Cross Country Team** took the title of Munster College Cross Country Champions for the first time against Teams from UCC, WIT, and UL.
- 18. CIT CSM graduate, **David Wallace**, received two major international awards recently. David who graduated from the CIT CSM with first class honours in the BMus Degree in 2005, received the BMO Merit Award and the Director's Choice Award at Boston Metro Opera's Contempo Festival & International Composer's Competition 2013.
- 19. The Spring Conferring Ceremony took place at the NMCI on 14 February 2013. Seventy-eight graduands obtained their parchments and included in these were the first cohort of students from the Masters of Arts in Art & Process, CIT CCAD.
- 20. CIT's final year in Mechanical Engineering student, **John Roberts** was awarded first place and outright winner of the 2013 Finals of the Speak Out for Engineering competition. This prestigious presentation competition was open to all undergraduate and postgraduate students who are members of IMechE or Engineers Ireland. After adjudications by a distinguished panel drawn from both academia and industry on 26 February, John's project "Design and Development of a Wheelchair Enablement Device" received the top accolade.
- 21. Innovation Week took place at the Institute from 4 to 8 March 2013. The week culminated with €10,000 of prizes being presented at the 2013 Cork County and City Enterprise Boards CIT Prize for Innovation Awards Ceremony on 8 March. This competition is a two-day event featuring an exhibition of innovation and enterprise at third-level and awards cash prizes to those whose inventions and business ideas are judged most creative, novel, innovative, and likely to succeed in the marketplace. The competition is open to all departments within the Institute and students can use a project that forms part of their coursework for the year as their entry to the competition. Olympic athlete, Ms Olive Loughnane was the keynote speaker at this year's competition and the following were the winners of the prizes:
 - (i) First Prize, and title of CIT Entrepreneur of the Year with a prize fund of €4,000, went to 'Mapr', a software innovation created by CIT multimedia students **Paul Shannon**, **Mark Fitzsimons**, and **Ronan De Lacy**. The games developed will enable stroke patients to perform exercises prescribed by their physiotherapists. This is the first time that students from the Department of Media Communications have won the title of CIT Entrepreneurs of the Year.
 - (ii) The Most Technically Innovative Award of €2,000 went to Project Bird, an award-winning software studio focusing on windows and web 2.0 developments. The Team is made up **Robert Gabriel** and **Tadhg Foley**, both students in Computing (IT Management), at CIT.
 - (iii) Best Business Plan and a prize of €1,000 was awarded to "The No Nonsense Food Company" consisting of **Matthew Brownie**, **Robert Farrow**, and **Hazel Burke** all students from Culinary Arts in the Department of Tourism and Hospitality Studies for their development of "Scratch my Pork", a quality, Irish, hand cooked, natural snack that is unique to the Irish market, and produced in a dedicated nut and gluten free facility.
 - (iv) Best Concept and a prize of €1,000 went to Cryostenz (Haemogenics) with students from Mechanical Engineering, Biomedical Engineering and Accounting and Information Systems, James King, Jeremiah Brennan, Damien Ahern, Tim Murphy, Aoife O'Donovan, and Michael Aherne.
 - (v) The €1,000 prize for Best Presentation Pitch went to 123 Fitness, a Team of Mechanical Engineering and Biomedical Engineering students, **Eoghan McEnery**, **Brian Hand**, **Aidan O'Sullivan**, **David Waterman**, **David Linehan**, **James Fogarty**, and **Donagh Good**.
 - (vi) The final award of €1,000 for Best Exhibition Stand at CIT Innovation Day went to Breathe Easy, made up of CIT Accounting and Information Systems students **Paul McCarthy**, **Eoghan Carroll**, **Jerry Hoare** and **Darragh Toomey**.

- 22. CIT CSM, MA in Performance student, **Alex Petcu-Colan**, was awarded the Yamaha Music Foundation of Europe Prize, €2,000, at a competition held in the Royal Irish Academy of Music in Dublin. Alex was awarded an Arts Council grant of €10,000 to assist in his purchase of a concert marimba.
- 23. The Institute's Annual Presentation of Institute Prizes Ceremony honouring its outstanding graduates of 2012 took place on 12 March 2013. The following students were presented with prizes:

| No. | Name | Title of Award | School/College |
|-----|-------------------------|---|--|
| 1 | Mark William John Casey | Best Honours Degree Student | School of Science & Informatics |
| 2 | Pádraig Micheál Condon | Best Honours Degree Student | National Maritime College of Ireland |
| 3 | Francis Cooley | Best Bachelor Degree Student | School of Humanities |
| 4 | Cassandra Mary Eustace | Best Honours Degree Student | CIT Crawford College of Art & Design |
| 5 | Eoin Liam Paul French | Best Taught Masters Degree Student | School of Building & Civil Engineering |
| 6 | Emma Jane Grice | Marshall Hutson Award – Best Art Education Student | CIT Crawford College of Art & Design |
| 7 | David Patrick Higgins | Best Bachelor Degree Student | National Maritime College of Ireland |
| 8 | Brendan Thomas Kelleher | Best Bachelor Degree Student | School of Mechanical, Electrical & Process Engineering |
| 9 | Shane Kiely | Best Honours Degree Student | School of Mechanical, Electrical & Process Engineering |
| 10 | Norma Madden | Best Honours Degree Student | School of Business |
| 11 | Anthony Francis Mannix | Best Bachelor Degree Student | School of Science & Informatics |
| 12 | Brian Murphy | Best Taught Masters Degree Student | School of Business |
| 13 | Gary Jack Murphy | Best Bachelor Degree Student | CIT Crawford College of Art & Design |
| 14 | Hugh Murray | Best Honours Degree Student | CIT Cork School of Music |
| 15 | Aoife Ní Labhradha | Best Taught Masters Degree Student | CIT Crawford College of Art & Design |
| 16 | Sam Perkin | Best Taught Masters Degree Student | CIT Cork School of Music |
| 17 | Gerard Rainsford | Best Taught Masters Degree Student | School of Science & Informatics |
| 18 | Gerard Rainsford | Best Overall Student | Cork Institute of Technology |



24. The Student Societies & Activities Awards took place at the Institute on 20 March 2013. Six Individual and six Society groups were presented with awards by Dr Barry O'Connor, Registrar & Vice President for Academic Affairs, as follows:

Society of the Year
 Best Course-Based Society
 Best New Society
 Most Improved Society
 Open Mic Society
 Crawford Society
 Slow Food Society
 Di Society

Best Event Drama Society – "Stags & Hens"

• Supreme Achievement in Society & College-wide Activities

Vitaliy Makhnanov, 3rd year Multimedia, Video Production & Photographic Society

Individual Awards

- Danielle Hughes, 3rd year Fine Art, Crawford Society
- Benjamin Henry, 3rd year Structural Engineering, International Students Society
- Pádraig Mullaly, 3rd year Pharmaceutical Biotechnology, Drama Society
- Miriam O'Regan, Masters in PR with New Media, Business & Accounting Society
- Laura Flynn, 4th year Accounting, Dance Society

Best Fresher

- Nana Oki, 1st year Pharmaceutical Biotechnology, Fashion & Beauty Society
- 25. CIT CSM part-time student, **James Keaveney Jimenez**, has won first prize in his category at the recent BT Young Scientist Competition. His project entitled "How Music affects Student Concentration" won the individual intermediate category for Social and Behavioural Science. James was runner-up in the Individual Life Sciences category with the same project at the Institute's SciFest 2012 in April last year.
- 26. **Robert Nolan** (MSc in Cloud Computing 2011) won the runner up prize in the Accenture Leaders of Tomorrow award in Dublin on 11 April 2013. He was awarded the second place prize "Best Technology Enabled Solution" and beat off stiff competition from TCD, DCU and other universities in the final round of this multi-stage challenging competition.
- 27. The Irish Concrete Society Students Prize (Seán deCourcy Award), which is awarded annually for the best final year project on an accredited civil engineering programme on the island of Ireland, has once again been won by a graduate of the BEng (Hons) in Structural Engineering course.

Detailing to Eurocode2 was the successful project of graduate **Brian O'Riordan**. This achievement is also remarkable in that this is now the third year in succession in which a graduate of BEng (Hons) in Structural Engineering programme has won the award (**Michael Minehane** 2009/10 and **Daniel Coleman** 2010/11); such success at this level, in competition with projects from DIT and from the traditional civil engineering university sector courses, is testament to the quality of the BEng (Hons) in Structural Engineering programme and the quality of the project work undertaken in final year projects.

- 28. On 18 April 2013, the Students' Union held the Annual Union Council Awards at which Class Representatives were presented with Certificates of Merit for 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. The SU Officers presented five Class Representatives, who had been nominated by their class members, with awards in recognition of their "Outstanding Voluntary Contribution" throughout the academic year. The award recipients were:
 - 1. Aaron Dennehy
 - 2. Shane Falvey
 - 3. Chris Howard
 - 4. Ciara O'Connor
 - 5. Marco Quatrana

Class Representatives have been at the core of the Union's growth and development. They form a pivotal role in the two-way communication process between students and the Students' Union and they act on a *voluntary basis*, freely giving of their time to enhance their fellow students' college experience and campus life.

29. CIT CSM graduate, soprano **Kelley Lonergan**, was awarded the €10,000 RDS Music Bursary following her successes in Electric Ireland Feis Cheoil 2013. (During Feis Ceoil 2013, Kelley won the Mrs P.J. Geoghegan Memorial Cup & Gus Smith €1,000 Award, Cuisine de France Count John McCormack €5,000 Vocal Bursary, and the Gervase Elwes Memorial Cup & Business Plus €2,500 Bursary).

The RDS Music Bursary is one of the largest single bursaries on offer to a young musician in Ireland and is open to both vocalists and instrumentalists. The opportunity to apply for this bursary is offered to winners of selected senior competitions in the ESB Electric Ireland Feis Ceoil. This year, in addition to the €10,000 RDS Music Bursary, Kelley was also offered a solo engagement with the RTÉ National Symphony Orchestra during its 2013-2014 season.

Kelley is currently a Masters student in Performance at the CIT CSM and graduated from the BMus course in 2010 with First Class Honours.

30. Current and former students of CIT CSM gained a place in the European Union Youth Orchestra auditions for the 2013/14 tours. The students are

Current students

- David Kenny, current viola student with Simon Aspell, won a place for the fourth year in succession
- Sinéad O'Halloran, cello student with Chris Marwood, made the reserve list
- Martha Campbell, viola student with Constantin Zanidache, and Louise Sullivan, French horn student with Seán Clinch, have both been included on the list of Final Round candidates to be encouraged

Former students

- Cillian Ó Ceallacháin, trombone, now studying in Glasgow, again won a place in the orchestra
- Aoife Burke, now studying in Manchester, won a place in the cello section
- 31. The **Annual CIT Sports Awards** presentation function took place in association with Bank of Ireland on 29 April 2013 in the Nexus, Student Centre. The Awards are a celebration of a successful sporting year and the award winners are those who capture the very essence and display the true value of sporting involvement. The recipients are a reflection of the various different levels of activity from participation to organisation and administrative skills right up to and including unique and elite sporting achievement. The following awards were presented:

Eleven Individual Awards

| 1. | Craig Robinson | Soccer |
|----|----------------|--------------|
| 2. | Dwayne Crowley | Tae Kwon Do |
| 3. | Maria McShane | Equestrian |
| 4. | Barry Pigott | Powerlifting |
| 5. | Niall Marshall | Pool |
| _ | | 6 11 5 11 |

Mark Griffin Gaelic Football
 Lorcán McLoughlin Hurling
 Ciarán Sheehan Gaelic Football
 Diane Galvin Powerlifting
 Maurice Malone Karting
 Eugene Higgins Golf

Fresher of the Year Award

Cullen Lynch, member of the Athletics Club

Graduate Achievement Award

Rachael Vanderwal, graduated from CIT in 2007 with a diploma in Recreation and Leisure. She has played international Basketball with Great Britain and was a member of their 2012 Olympic Squad.

Most Improved Club

This year's winner, **Equestrian Club**, has undergone a serious transformation – competing in one competition, the annual Intervarsities, to flourishing to compete in a wide variety of competitions.

Club of the Year

Powerlifting Club. This Club's membership has grown over the year, with a core committed group of 50 active members. The Club has had an excellent year so far both nationally and internationally with even more competitions to come.

Five Achievement Awards

1. **Jane Mangan** Cheltenham 2013

Pat O'Connor
 Stephen O'Halloran
 U21 All-Ireland Hurling 2012
 U21 All-Ireland 2012

4. David O'Halloran U21 All-Ireland 2012

5. **Emma Farmer** Senior Ladies Football All-Ireland 2012



- 32. CIT CSM and **Youth Choirs** (conductors James Taylor and Maria Judge) were awarded 1st prize in the National Competition for Youth Choirs at the 2013 Cork International Choral Festival, and to **Capella Lyrica**, BMus programme (conductor Maria Judge), who achieved 2nd prize in Ireland's Choir of the Year competition and was also the recipient of the Trófaí Cuimhneacháin Philib Ui Laoghaire, a Special Award for the most outstanding performance of a piece in Irish in the National Youth and Adult Choir Competitions.
- 33. The Minister for Education and Skills, Mr Ruairí Quinn TD attended the Conferring Ceremony which took place on 9 May 2013. The following awards were conferred:
 - Higher Diploma in Science in Software Development
 - Higher Diploma in Science in Cloud Computing
 - Higher Diploma in Science in Cloud & Mobile Software Development
 - Bachelor of Science (Honours) in Cloud Computing
 - Master of Science in Cloud Computing
 - · Master of Science in Computational Biology

The first graduates of the Master of Science in Cloud Computing, first cohort of Master of Science in Computational Biology, and the Level 8 ICT Skills conversion courses in Cloud Computing were conferred.

34. The finals of the Engineers Ireland Innovative Student Engineer Awards 2013 Level 8 took place on 10 June 2013 at Engineers Ireland Headquarters, Ballsbridge, Dublin.

CIT student, **Patrick Byrnes** was announced the winner. His project title was "Automation of Femoral Implant Ultrasonic Cleaning and Blast Processes at Zimmer Orthopaedics." **John Roberts**, CIT student was also short-listed from a large number of extremely high quality submissions from over 16 eligible colleges islandwide. Both students were two of five short-listed. The other three came from the National University of Ireland Galway (NUIG), National University of Ireland (Maynooth) and DIT.

35. CIT was successful in three out of ten finalists from over 400 entries Islandwide for the **Enterprise Ireland/Invest Northern Ireland Think Outside the Box** Finals in Galway on 12 and 13 June 2013. The CIT success represented a hugely positive achievement and validation for the AH Technology, Sweet Sounding Electrics and 123 Fitness third year/fourth year multidisciplinary teams, who have now been adjudged to be in the top 2.5% of undergraduate, masters and doctorate competing students islandwide.

On 13 June 2013 the results of the Think Outside the Box Competition were announced by Minister John Perry.

Ireland/Invest Northern Ireland Think Outside the Box Student Entrepreneur of the Year 2013 - €10,000 Company: AH Technology Product: Mastech CIT Animal Healthcare Device Design and Development Multi-Discipline Start-Up Innovation Team

Nicola O'Mahony, Donal Carey, Kenneth Barry, Damien McAuliffe, Ciaran Malone, Owen McDonagh, and James Cahill.

Second Place and Cruickshank Intellectual Property Attorneys Most Technologically Innovative Product - €5,000 Company: Sweet Sounding Electrics Product: HushHush Hairdryers CIT Electronic Device Development Multi-Discipline Start-Up Innovation Team

John Kelleher, Mariah Reidy, Marco Quatrana, Kieran Minehane, Colm Kearney, Shane O'Driscoll, and Niamh Ryan

Enterprise Ireland/Invest Northern Ireland Award of Merit - €1,500

Company: 123 Fitness Product: Robobox CIT Sports Training Device Development Multi-Discipline Start-Up Innovation Team

Eoghan McEnery, Brian Hand, Aidan O'Sullivan, David Linehan, James Fogarty, David Waterman, and Donagh Good

As a result of this extraordinary success, CIT will host the Enterprise Ireland/Invest Northern Ireland Think Outside the Box finals in 2014.

- 36. The Conferring of Degrees and Higher Certificates took place on 20 June 2013 in the NMCI and 72 graduands received their parchments.
- 37. CIT student, **Ruth Keary**, PhD student in Applied Biosciences won the Teagasc prize for the Best Oral Presentation at the 42nd Annual Food Research Conference hosted by the Teagasc Food Research Centre from 27 to 28 June 2013. Her presentation was titled "Use of a bacteriophage-derived enzyme for staphylococcal biofilm control".
- 38. Congratulations to Team Ireland on their success at the 42nd WorldSkills Competition which came to a thrilling end at the Leipziger Messe Arena in Leipzig, Germany on 21 July 2013.

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 on 1/2/2012 to 31/1/2013.
- Mr John P. Murphy, retired member of the academic staff appointed on 1/2/2013.



4. Research & Development

Cork Institute of Technology

- 4.1 Development Activities
- 4.2 Research Activities
- 4.3 Research Publications
- 4.4 External Development Links
- 4.5 International and EU Activities
- 4.6 Campus Development
- 4.7 Safety & Facilities Management

4.1 Development Activities

CIT Support for Companies

The Institute is committed to assisting entrepreneurs and new business start-ups in the region. Supports and opportunities are provided to existing companies at different stages of company development to progress to the next level. This is done mainly through the Rubicon Centre, and the Programmes run from the Centre, as well as through the Technology Gateways Programme (previously the Applied Research Centre (ARE) Programme).

Rubicon Centre

The Rubicon Centre accommodates 220 people, working in 60 start-up companies. This is the largest concentration of start-up companies on the island of Ireland. Over 50% of the companies based in the Rubicon have links with CIT. These links are in the form of student placements, student projects, or joint research and development.

The Rubicon Centre continued to run its development programmes throughout the year.

New Frontiers (Phase 1)/Enterprise Start

CIT continued to run the Enterprise Start programme throughout the year under its new branding of New Frontiers (Phase 1). Enterprise Start helps potential entrepreneurs to make decisions regarding the feasibility of their idea and gives insights into the essential elements involved in creating a new enterprise. At the end of the programme, each participant is given the opportunity to present their business plan to a panel of experts and support agencies. Participants also obtain advice and support on where to look for further assistance in developing their business idea. On completion of the programme, approximately 80% continue developing their business concept either on a part-time or full-time basis. This Programme is also used in company closure situations and a number of programmes have been completed where multi-national companies are faced with reducing their headcount.

New Frontiers (Phase 2) Programme (formerly Genesis Enterprise Programme)

The New Frontiers Programme has a significant impact in the Cork area in terms of business start-ups. In turn, many of New Frontiers "graduate" companies will continue to hire CIT graduates, be a regular source of placements for CIT students, and will have collaborative and contract research projects with CIT.

In January, Mr Seán Sherlock TD, Minister for Research & Innovation, officiated at the Annual Awards and Showcase. The awards ceremony marks the end of the participants' year on the programme. The 12 participants came from a range of sectors including, gaming, micro-electronics, new forms of media, food, medical devices, and internationally traded services.

Over 200 people attended the 2013 New Frontiers Showcase & Awards drawn from the regional development bodies, current and past Genesis participants, venture capitalists, private investors, the higher education community, and the wider business community in the South West region. AspiraCon (2007/2008 Genesis Programme) was awarded the 2013 Genesis Alumni Award. The Award is presented annually to an alumnus of the Genesis Programme who has made substantial achievements in their commercial field or has contributed in a significant way to the economic development of knowledge based businesses in the region. AspiraCon employ over 30 people and its products can be found in four continents.

PINC

CIT continued to run PINC, a dedicated programme for female entrepreneurs. PINC is an intensive programme for female entrepreneurs who want to take their business ideas to the next stage. The programme is run part-time over 10 weeks, allowing participants to balance their family commitments while at the same time plan and develop their business ventures. The idea behind PINC is to allow participants the opportunity to focus on their business idea in a structured group environment, whilst at the same time offering one to one mentoring on all aspects of their business. Currently the percentage of companies led by females in the Rubicon is 25% which is a very high percentage. PINC is one of the main contributors to this high percentage.

Lunchtime Links

A number of "Lunchtime Links" were held during the year whereby staff from various academic departments were invited to a lunchtime event hosted by the Rubicon Centre. The networking event was an opportunity to highlight the supports available within the Rubicon as well as a snapshot of the companies based there. The academic departments summarised the type of programmes delivered in their areas and staff skills available. The "links" events gave both academic staff and Rubicon staff the opportunity to explore mutually beneficial areas for cooperation.

EU Projects for Start-Ups

The Institute is involved in an EU project TESLA. TESLA is a European cooperation project which focuses on innovation supports for early stage technology companies. With partners in the Border, Midland and Western Regional Assembly based in Roscommon, Belgium, France, Wales, Germany, and Holland, CIT is responsible for actions related to internationalisation, new product development and entrepreneurship in large companies.

Beacon Initiative

The Beacon Initiative is funded by Cork County Council and aims to foster stronger links between the Institute's research and enterprise support activities and companies in the wider Cork region. Almost 100 companies have had the opportunity to interact with the Beacon Initiative and a number of growth opportunities for existing companies have been identified. These include job growth, building international sales, and potential research & development projects.

Innovation and Technology Transfer

The dedicated Technology Transfer resource continues to play an integral role in supporting the increased interaction with industry in all departments across the Institute.

Funding of €150,000 was secured from Enterprise Ireland to continue this activity. In 2012, there were over 135 interactions with industry which required agreements such as non-disclosure agreements to be drawn up. The majority of this activity was generated through the Applied Research Enhancement Centres (TEC & CAPPA) as they continue to increase the level of activity with industry in the region.

During the 2012/2013 academic year, the following technology transfer activity was achieved:

Licences, Options 3Invention Disclosures 19Patents 3

The Intellectual Property (IP) Policy was rolled out and implemented during the year. A number of specialised training courses were held for the research community to increase their awareness of IP. They were shown how to protect IP and the options for exploiting and commercialising IP.

Student Entrepreneurship

Undergraduate Entrepreneurship Activities

CIT is increasing its undergraduate activity in the area of entrepreneurship year on year. The Industry Liaison Office has played a leading role in this area along with a growing number of academic departments. The Rubicon Centre is a huge asset in pushing this agenda forward as well as the establishment of the HINCKS Centre for Entrepreneurship Excellence in 2013.

Cork County and City Enterprise Boards CIT Prize for Innovation 2013

The 11th CIT Prize for Innovation took place in the Nexus Student Centre on 8 March 2013 with a keynote address from Ms Olive Loughnane, an Irish athlete who has represented Ireland in four Olympic Games and 5 World Championships.

Student "Entrepreneurs" (30 teams with almost 140 students involved) showcased their businesses during the exhibition and a total prize fund of €10,000 was awarded to the winning entries. Over 300 students from the Institute and the Cork Schools Programme attended on Innovation Day. The Cork County and City Enterprise Boards sponsored the competition and in addition to the cash prizes, a perpetual cup is on display in the Department of Mechanical, Biomedical & Manufacturing Engineering.

The Institute also hosted the Cork Schools Enterprise Programme to coincide with its "Prize for Innovation". The Cork Schools Enterprise Programme aims to educate second-level students about the realities of setting up and running a business.

Think Outside the Box Awards (formerly known as the Student Awards)

A number of CIT projects were entered into the "All Ireland Think Outside the Box Awards", offering third-level students across Ireland the chance to compete for the coveted title of "College Entrepreneurs of the Year" and win a share in the prize fund of €65,000. CIT has an excellent track record in this competition taking the overall prize in 2004, winning the Cruickshank & Co Technology Innovation Award in 2005, taking a College Award in 2006, winning the overall prize in 2007, winning the Cruickshank Technology Innovation Award in 2008, and taking 2nd place in 2010.

In 2013, from 400 entries island-wide, a multi-disciplinary CIT student team won the overall title of Student Entrepreneurs of the Year and €10,000. Two other CIT groups won second place and an award of merit.



Enterprise Interns

CIT has two Enterprise Interns promoting entrepreneurship amongst the student population. One Intern is based in the Development Office and the second is based in the Rubicon Centre. Both interns have access to the academic staff and to the staff of the Rubicon Centre and the 60 start-up companies based there. The Interns spend 20 hours a week on promoting entrepreneurship on campus while pursuing a Masters in CIT. The Interns ran a number of competitions during the year, including a competition for the second-level students which was held on Open Day in November 2012.

Hatchery Programme

Over the summer months five student projects, consisting of six students, attended the Rubicon full-time developing their business ideas. During this time they attended weekly workshops, covering many topics that enabled them to produce a completed business plan by 1 September. The students received mentoring from industry and financial assistance from the School of Business and the Faculty of Engineering & Science, and office accommodation from the Rubicon. The internship programme was completed in September 2013 when the student businesses that were created over the summer months were presented and launched to the Senior Staff. One of the participants from the previous year (not yet graduated) signed a lease for a 4-person unit in the Rubicon during the summer.

Entrepreneur in Residence

The appointment of Kieran Moynihan as CIT Entrepreneur in Residence in September 2010 has had a very positive impact on students, staff and the companies based in the Rubicon Centre. As well as providing guidance and support to the companies in the Rubicon pitching for investment, Kieran has met with CIT staff and students across the campus promoting innovation and entrepreneurship. Kieran has also represented the Institute at regional and national events, e.g. National Guidelines on Entrepreneurship Education.

Cork Innovates

Cork Chamber established a forum, Cork Innovates, to examine how to drive entrepreneurship in the region. The Institute has representatives on each of the three sub-committees of this organisation. Given the current economic climate, it is vital that Cork creates a favourable environment for the growth of entrepreneurship and the development of indigenous businesses that can potentially create employment and increase Ireland's exports. The objective of the Committee is to develop a cohesive and clear message from all stakeholders to promote a culture of entrepreneurship and support for the region's entrepreneurs.

Innovation Week

Innovation week at CIT was held from 4 - 8 March 2013 and in total 18 events were held during the week. Activities were held at the Bishopstown Campus, CIT Crawford College of Art & Design and CIT Blackrock Castle Observatory. Approximately 1,200 people attended events or entered one of the many competitions during Innovation Week.

CIT CoderDojo Initiative

CoderDojo (www.CoderDojo.com) is a worldwide movement provided on a voluntary basis delivering a technical grounding and education to young children in writing programme code. CoderDojo groups are already established in over 200 locations across five continents. CoderDojo also emphasises the need for young people to progress to become mentors themselves - based on their technical competence irrespective of their age.

CIT initiated a CoderDojo chapter in March 2012. It is run by a group of volunteers from CIT staff and students from across the Institute. The Rubicon Centre and the NIMBUS Centre provide the venue for the club on a weekly basis and the Faculty of Engineering and Science provides financial assistance for consumables.

Since opening its doors, over 140 children have taken part in the CIT CoderDojo programme with 50 taking part in the programme on a weekly basis. There is a waiting list of 70 children to join with many of these on the list for a year or longer.

In its first year, the CIT CoderDojo initiative had success in a number of regional and national competitions:

- Three second-level students won the HP Innovation Prize at the BT Young Scientist competition, for their Study Revision App that they developed in CoderDojo
- A ten year old coder came second in the LERO National Scratch competition for her Jolly Phonics animation
- The CIT CoderDojo team came second in the regional Lego Robot competition which is run by the Cork Electronic Industry Association

4.2 Research Activities

4.2.1 Research and Development Activity - Institutional Highlights

The total research income for 2012/13 was \in 17.9m, of which \in 7.6m was non-exchequer (composed of industry (\in 4.4m), EU (\in 2m) and contract (\in 1.2m).

The following Table summarises the non-academic staff and research postgraduates involved in research and innovation activities.

| Classification | Number |
|--------------------------|--------|
| PhD Students | 99 |
| Research Masters | 44 |
| Postdoctoral Researchers | 39 |
| Contract Researchers | 23 |
| Research Assistants | 6 |
| Research Technicians | 2 |
| Programme Managers | 13 |
| | |
| TOTAL | 226 |

The PRTLI 5 funded research building, the Centre for Research in Advanced Therapeutic Engineering (CREATE), is expected to be completed by the end of October 2013, with an occupancy date expected for November.

A re-organisation of the Research Structure was completed. The new organisational structure recognises three main research entities – Centres, Groups and Units.

Significant progress was made on the Researcher Career Framework. The re-organisation of the research structure was the first element to be adopted by the Institute, with two other elements (roles and responsibilities of researchers, and researcher performance evaluation) to be presented for adoption early in the academic year 2013/14.

The CAPPA Research Centre is a partner in the SFI-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 €300m over 6 years. The Bio-Explore and Halpin Research Centres were also successful in this programme, as partners in the Alimentary Pharmabiotic Centre (APC) and the Marine Renewable Energy Ireland (MaREI) Centre, respectively. CIT was the only Institute of Technology to receive funding through this prestigious scheme.

Institute researchers published approximately 150 peer-review journal publications and conference proceedings were cited 530 times and contributed to an Institutional h-index of 28. They continued their strong engagement with industry, being involved with over 130 companies in R&D projects; and completed over 410 undergraduate projects with industrial partners.

CIT is a partner in two of the three SFI-funded programmes which are targeted at increasing the research collaboration with partners in India, China and Brazil. CIT is a member of the India and China consortia.



4.2.2 Research Centre Highlights

As shown in the table below, CIT has four recognised Thematic Research areas, each with an associated Research and Innovation Centre, and two with an associated Research and Innovation Group.

| Thematic Research Area (TRA) | Associated R&I Centre | Associated R&I Group | |
|--|---|-------------------------------------|--|
| Information and Communication Technologies (ICT) | NIMBUS Centre for Research in Embedded Networked Systems | | |
| Life Sciences & Wellbeing | Bio-Explore Research Centre | | |
| Photonics | CAPPA – Centre for Advanced Photonics and Process Analysis | Astronomy and Instrumentation Group | |
| Maritime, Energy and Sustainable Environment (MSE) | HALPIN Research Centre | Energy Group | |
| Exercise and Health* | | Spraoi | |

^{*}Exercise and Health is anchored in the School of Humanities and is undergoing a process of formal recognition as a TRA. There is no R&I Centre yet associated with it, however, the plan is to develop one in time as the Spraoi Group grows.

The following is a summary of the highlights from the R&I Centres.

(i) Bio-Explore Research & Innovation Centre

A total of 12 new PhD students joined the centre in 2012/13. The centre now has over 20 PhD students. Diverse projects covering areas such as molecular diagnostics, agricultural science, bio-informatics and chemical sensing have all been awarded substantial funding following a highly competitive series of funding calls during the last 6 months. This highlights the high profile and recognised track record of the Bio-Explore research team who are currently finalising plans to move to the new state of the art CREATE building.

Bio-Explore researchers, Dr Ambrose Furey and Dr Brigid Lucey installed the substantial equipment they received under the SFI Research Infrastructure scheme at a cost of €800,000. Dr Furey will carry out work on heavy metal analysis in blood and serum in conjunction with Cork University Hospital (CUH). Dr Lucey will work with CUH on the rapid analysis of biological tissues. Also, two researchers, Dr Jim O'Mahony and Dr Helen O'Shea, received separate awards in excess of €100,000 each from the Department of Agriculture to fund research into animal health related projects. These grants were successfully attained under the highly competitive Food Institutional Research Measure Programme.

Researchers from the biomedical engineering group (MEDIC) within Bio-Explore licensed a device to BCO Pharma Ltd which is designed to deliver a drug for the treatment of Otitis Media (middle ear infection). This is a major milestone for MEDIC as it is the first Innovation Partnership licensed by MEDIC to a collaborating partner company.

(ii) CAPPA Research & Innovation Centre

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 €300m over 6 years. CIT was the only Institute of Technology to be funded in the call. Within the €23m I-PIC centre, CAPPA will work on projects with 5 regional companies, both MNCs and SMEs, as well as on core research relevant to all members of the centre.

The EI-funded CAPPA Technology Gateway, which officially began in January 2013, continues to build on the success of the previous Applied Research Enhancement centre in engaging with industry partners on collaborative applied research. The Gateway brings photonics technology and techniques to areas such as medical devices, pharmaceutical and food processing and analysis. The CAPPA Technology Gateway has a 2012/13 portfolio which is €4.5m with €1.7m (38%) coming from industry. This €4.5m comprises completed industrial projects, ongoing industrial projects, projects funded and awaiting start and pipeline activities. An interesting performance metric is to compare this with the ARE Programme. The ARE programme across all 13 Institutes of Technology delivered €9.9m of industrial projects (with 40% industry contribution) over the 5 years of the programme. CAPPA on its own is currently delivering almost half of that ARE total within the first year of the Gateway.

CAPPA research was highlighted with a programme on Euronews on 2 April 2013. The research is part of a €1.2m European FP7 project called Aqua-Pulse (www.aqua-pulse.org) which centres around the purification of water using UV light emitting diodes and photocatalysis. The CIT team use its expertise in the generation of UV light as the key novelty in the research.

Dr Andrei Vladimirov from the Weierstrass Institute in Berlin, Germany, was awarded a prestigious SFI E.T.S. Walton Fellowship to join CAPPA for a year as a visiting researcher. During his time in the Centre from September 2012, he worked on the theoretical modelling of quantum dot and frequency-swept Fourier domain mode-locked lasers.

June 2013 also saw the start of the SFI US-Ireland R&D Partnership project, involving CAPPA and researchers in the University of California Los Angeles and Queens University Belfast. The project is jointly funded by SFI and the US NSF and Northern Ireland InvestNI funding agencies, and will investigate novel nanopillar lasers grown on silicon for energy-efficient femtojoule-per-bit communications technologies.

The EU Marie Curie Initial Training Network, PROPHET, which CAPPA is coordinating, held its Summer School in Cargèse, Corsica in August 2013. PROPHET (Postgraduate Research on Photonics as an Enabling Technology), is a €4.8m project involving 13 European partners, which focuses on training postgraduate researchers in photonics. The two-week Summer School was organised in collaboration with the International Nano-Optoelectronics Workshop, and was attended by 70 young researchers and 44 invited speakers. The School was particularly honoured by the participation of Nobel Laureate Prof. Zhores I. Alferov, winner of the 2000 Nobel Prize in Physics for the development of semiconductor heterostructures.

(iii) NIMBUS Research & Innovation Centre

NIMBUS is Ireland's only research centre devoted to the field of networked embedded electronic systems. The Centre consists of a range of complementary research and development expertise.

Adopting a multi-disciplinary approach, the NIMBUS Centre focuses the research expertise on the following industrial application areas:

- Energy Management building energy management, demand side management, intermittency analysis and control, smart micro-grids;
- Water Systems Management remote sensing and monitoring, water network management systems, waste water management;
- **Smart Systems** embedding of electronics in everyday objects, materials and structures to create aware environments that their occupants can interact with intuitively the Internet of Things;
- Applications in Tourism, Agriculture and Health.

NIMBUS currently hosts 62 researchers, including 10 PhD students.

Research income in NIMBUS exceeded €3m for 2012/13. Some of the major research projects included EU-funded projects on energy (TRIBUTE and Energy in Time). The overall success rate for NIMBUS applications to national and EU programmes is 90%.

The El-funded Technology Gateway, Technologies for Embedded Computing (TEC), which is a group with NIMBUS, works extensively with small to medium size Irish based companies who have requirements for ICT innovation, particularly in embedded systems. Many of the clients, both multinationals and start-ups, use TEC to develop their product prototype to facilitate the next level of funding for their business, support large scale research projects and to demonstrate to potential clients their concepts in a form that is tangible and real. TEC currently has 49 projects underway, with 37 projects won in 2012/13.

NIMBUS 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 MNC. The testbed project establishes a critical mass of building energy, energy systems, and power systems researchers in CIT, allowing the Institute to sustain cutting edge research in the energy space. As part of a research programme, NIMBUS has plans to expand the testbed from the building level to campus level in conjunction with two partner companies. This programme expands the existing resource to include 5-6 units of self-contained student accommodation, and a large health and leisure facility where there is a CHP plant in operation currently, and adding a further 300kW CHP within the Institute.

NIMBUS 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.

Since its inception in 2006, NIMBUS research has been granted funding of approximately €24m through a wide range of funding programmes including HEA's Programme for Research in Third-Level Institutions, Enterprise Ireland, Science Foundation Ireland, FP7, and direct industry funding. Collective outputs from the NIMBUS Centre include over 150 projects in conjunction with 75 Irish companies and 40 disclosures/licences/patents in the last four years.

(iv) Halpin Centre for Research and Innovation

The Halpin Centre for Research and Innovation was launched in August 2013 at the NMCI. The Centre undertakes research, development and innovation activity in the Maritime Safety and Security, Maritime Education and Training, and Shipping



Transport and Logistics areas. It has close partnerships with the Irish Naval Service and will form a pillar activity for the rapidly developing IMERC initiative.

Halpin researchers have been involved in research programmes including Framework 7, Interreg, Leonardo, and other EU-funded research activities, and are currently involved in 10 such projects, having already completed a further three. They were awarded 4 PhDs under the SFI Research Centres programme as part of the successful MaREI Centre, and also funding to part-support two researchers.

(v) Research and Innovation Groups

- The **Energy Group** appointed a Head of Group, Rene Peeren, in August 2013. Mr Peeren will work to develop a strategy for the group. However, they are currently concentrating on ways to integrate the engineering expertise into the National Sustainable Building Energy Testbed, IMERC and the ongoing activities in building retrofitting for energy efficiency.
- The **Astronomy and Instrumentation Group (AIG)** at CIT BCO has 3 PhD students, including a RISAM student from the University of Pune in India. The AIG installed a robotic telescope in California and signed an MOU with the University of California at Berkeley. The AIG is closely associated with the outreach programme at CIT BCO.
- The **Spraoi Group** has 1 PhD and 2 research Master students and they are researching how effective interventions amongst younger children are at improving nutrition and physical health. The research will provide information on the long term health needs of the participating pupils, leading to the development of long term health plans.
- Departments in the **Crawford College of Art and Design** are involved in a number of research projects, with a strong collaboration in the area of media communications with our German partners Hochschule Darmstadt University of Applied Sciences. Projects include archiving of digital items including old games and their associated platforms, and more generally digital representation of culture. In the Medi@tic Interreg project researchers are examining how best to transfer digital media development best practice between regions and sectors to help create new businesses and jobs.

4.2.3 CREATE Research Building

The concept of the Centre for Advanced Therapeutic Engineering (CREATE) is to assemble a multidisciplinary collaborative research team in the same state-of-the-art building, combining the three areas of biosciences, biomedical technologies and advanced bio-imaging to drive research in Advanced Therapeutic Engineering. The building is being constructed at the end of C-block, is two-storeys in height, with an expected gross floor area of 1,533 m². Work is expected to complete ahead of schedule in November 2013.

CREATE's three complementary research strands come from two of the Institute's Strategic Research Clusters (SRC's) and provide convergence on translational health research across the spectrum from patient care to product development. **Bio-molecule discovery** involves peptide analysis & engineering including bio-informatics & molecular diagnostics, focusing on therapeutic applications in infectious disease, gut health and cancer. **Biomedical engineering** concentrates on implant technology platforms, including SMART surgical devices, post-operative rehabilitation and biomaterials for *in-vivo* therapy and regeneration, partnering with clinicians and industry. **Advanced imaging** focuses on developing new devices for optical imaging applications in biomedical and process analysis in partnership with industry and academia.

4.2.4 Ed4Life and INSPIRE Structured PhD Programmes

Ed4Life (Education for LifeSciences) is a structured PhD programme in the lifesciences led by CIT, with collaborators in UCC and Teagasc, Moorepark. The third cohort of students are due to be enrolled in September 2013. Modules in generic skills are being refined and will be accredited by the Institute's Academic Council along with a number of subject-specific modules for the lifesciences.

The National Graduate Education Programme in Nanoscience and Nanotechnology (**INSPIRE**) involves CIT and University College Cork/Tyndall National Institute, Dublin City University, Dublin Institute of Technology, National University of Ireland Galway, and University of Limerick. INSPIRE is also developing modules (generic and subject specific) and the optimal use of these along with the modules being developed for Ed4life continue to be assessed.

4.2.5 Strategic Research with Indian, Chinese and Brazilian Universities

CIT is a partner in two SFI-funded programmes (ISCA – International Strategic Cooperation Awards) aimed at developing closer links with Indian and Chinese universities. India has been CIT's preferred country of choice for research collaboration and the ISCA funding will see the strengthening of ongoing collaborations and the establishment of new collaborations, notably in Pune, Delhi and Bangalore. Similarly, CIT researchers will travel to China, principally Shanghai and Beijing, to conduct research in agri-food and virology. Although not part of the Brazil-ISCA programme, CIT researchers are targeting top-quality Brazilian universities for collaboration, taking advantage of the Brazilian Government's *Science Without Borders* programme and other research programmes run by individual institutions.

4.2.6 Research Office

The Research Office purchased the SCOPUS database for use across the Institute by both staff and postgraduates. SCOPUS is the largest abstract and citation database of peer-reviewed literature, with over 50 million records, and is the academic reference standard for generating metrics.

The Research Office continues to test options for a comprehensive Research Management System based on feedback from a pilot study in 2011/12. One of the major findings from the pilot study is the need to have a system which can act as automatically as possible, relying on user-input as little as possible.

4.2.7 Other notable Research and Innovation activity

CIT operates two specialist centres which are national in scale and provide independent expertise, advice and assistance to industry, business, government bodies and the general public. They include:

- The Centre for Advanced Manufacturing and Management Systems (CAMMS) is attached to the Department of Mechanical, Biomedical & Manufacturing Engineering in CIT. The Centre uses the design, build, test and validate expertise of departments in solving problems for industry and in delivering up to date training and education. Certifications available include City and Guilds, American Society for Quality, Society of Manufacturing Engineers. The Centre is an Associate Member of the International Institution for Production Engineering Research (CIRP) and a recognised Training Provider for Continuing Professional Development (CPD) to Engineers Ireland.
- The **Clean Technology Centre (CTC)** was formed in response to the growing need for better environmental performance in industry and society and the need to minimise waste at source as opposed to waste treatment and disposal. The goal of the CTC 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, Agenda 21, local initiatives, socioeconomic factors, etc.

CIT also operates a centre for the communication of science with the public at its CIT BCO facility:

• Blackrock Castle Observatory has been operating for 6 years and the annual footfall to the site now exceeds 100,000 visitors. BCO has been awarded the Trip Advisor Excellence Award in 2013. In 2013, BCO researchers installed a remotely controlled telescope in California which is controllable in realtime during school hours in Ireland and it is the first of its kind in Ireland. Known as Project TARA, the objective is to inspire young pupils to become more engaged in Science, Technology, Engineering and Mathematics (STEM) and to become more aware of the career opportunities afforded by STEM-based knowledge. A new planetarium was also installed at BCO with a grant from Cork City Council. On the educational side, based on the positive feedback from running teacher CPD courses over the past three years, aimed at using the excitement of astronomy to promote STEM, the Department of Education and Skills have asked BCO to develop a more-advanced CPD course for teachers who may have taken the original course.

4.3 Research Publications

The three diagrams below provide a snapshot of the peer-reviewed publication activity for the Institute. Science and Engineering dominate the peer-reviewed publication records for both journal papers and conferences, but Humanities and Business make up a significant contribution of almost 20%. The contribution from Humanities, Business, and Creative Arts is stronger in the publication categories of reports, presentations, book chapters and reviews.

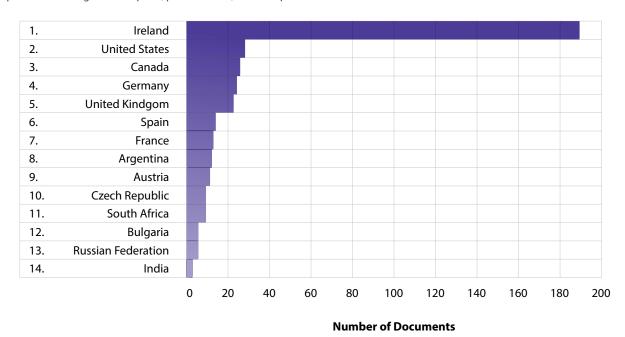


Figure X above shows the distribution of peer-reviewed publication co-authors. While the majority for a single country comes from Ireland, approximately 50% of co-authors have international affiliations. (Source: Scopus)

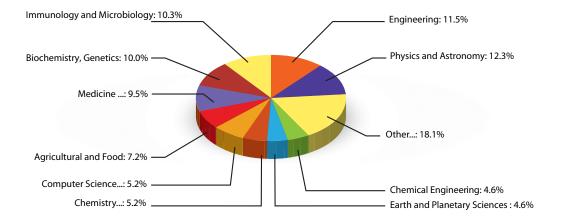


Figure Y above shows the distribution of publication disciplines. Approximately 82% are in science and engineering. (Source: Scopus)



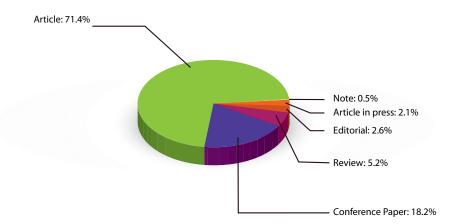


Figure Z above shows the distribution of publication type, with 71.4% being journal papers and 18.2% being conference papers (all peer-reviewed). (Source: Scopus)

The following are the Institute's international peer reviewed publications (articles, conference papers, reviews, editorials) for the academic year 1 September 2012 to 31 August 2013:

- 1. Fajkusova, D., Pesko, M., Keltosova, S., Guo, J., Oktabec, Z., Vejsova, M., Kollar, P., Coffey, A., Csollei, J., Kralova, K., Jampilek, J. (2012), Anti-infective and herbicidal activity of N-substituted 2-aminobenzothiazoles, Bioorganic and Medicinal Chemistry, Volume 20, Issue 24.
- 2. *Kelleher, B., Hegarty, S.P., Huyet, G.* (2012), Optically injected lasers: The transition from class B to class A lasers, Physical Review E Statistical, Nonlinear, and Soft Matter Physics, Volume 86, Issue 6.
- 3. Pavarelli, N., Ochalski, T.J., Liu, H.Y., Gradkowski, K., Schmidt, M., Williams, D.P., Mowbray, D.J., Huyet, G. (2012), Competitive carrier interactions influencing the emission dynamics of GaAsSb-capped InAs quantum dots, Applied Physics Letters, Volume 101, Issue 23.
- 4. *Neally, T., Boljevic, S., Conlon, M.F.* (2012), Impact of Combined Heat and Power generation on an industrial site distribution network, Proceedings of the Universities Power Engineering Conference.
- 5. *Murphy, P., Bello, F.D., O'Doherty, J.V., Arendt, E.K., Sweeney, T., Coffey, A.* (2012), Effects of cereal β-glucans and enzyme inclusion on the porcine gastrointestinal tract microbiota, Anaerobe, Volume 18, Issue 6.
- 6. Srirangarajan, S., Pesch, D. (2012), Sensor selection using heuristic-based sequential hypothesis testing, IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, (PIMRC) Conference.
- 7. *McGibney, A., Pusceddu, D., Rea, S., Pesch, D., Geron, M., Keane, M.* (2012), A methodology for sensor modelling and placement optimisation to support temperature monitoring, BuildSys 2012 Proceedings of the 4th ACM Workshop on Embedded Systems for Energy Efficiency in Buildings Conference.
- 8. *Pivec, M., Hable, B., Coakley, D.* (2012), Serious sports: Game-based learning in sports, 15th International Conference on Interactive Collaborative Learning, ICL 2012.
- 9. *Villaverde, B.C., Oury, J., Pesch, D., De Paz Alberola, R., Fedor, S.* (2012), Commissioning of low power embedded devices with IPv6/CoAP, SenSys 2012 Proceedings of the 10th ACM Conference on Embedded Networked Sensor Systems.
- 10. *Gunn, L., Feeney, S.A., Cashman, O., Collins, P.J., Coyle, P.V., O'Shea, H.* (2012), Molecular characterisation of group A rotavirus found in elderly patients in Ireland; Predominance of G1P[8], continued presence of G9P[8], and emergence of G2P[4], Journal of Medical Virology, Volume 84, Issue 12.
- 11. *Murphy, M.D., O'Mahony, M.J., Upton, J.* (2012), A load shifting controller for Cold Thermal Energy Storage systems, 2012 International Conference on Green Technologies.
- 12. Healy, D.A., O'Connor, D.J., Burke, A.M., Sodeau, J.R. (2012), A laboratory assessment of the Waveband Integrated Bioaerosol Sensor (WIBS-4) using individual samples of pollen and fungal spore material, Atmospheric Environment, Volume 60.
- 13. *Guinee, R.A.* (2012), A novel pseudonoise tester for transmission line fault location and identification using pseudorandom binary sequences, Proceedings IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems (Conference Paper).



- 14. Tawfik, M., Sancristobal, E., Martin, S., Gil, R., Pesquera, A., Albert, M.J., Diaz, G., Peire, J., Milev, M., Mileva, N., OSuilleabhain, G., Tzanova, S., Kreiner, C., Hörmann, L.B., Castro, M. (2012), European online master degree program for addressing labour market demands, International Journal of Online Engineering, Volume 8, Special Issue 1.
- 15. Aliu, E., Archambault, S., Arlen, T., Aune, T., Beilicke, M., Benbow, W., Bouvier, A., Buckley, J.H., Bugaev, V., Byrum, K., Cesarini, A., Ciupik, L., Collins-Hughes, E., Connolly, M.P., Cui, W., Dickherber, R., Duke, C., Dumm, J., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Gillanders, G.H., Godambe, S., Griffin, S., Grube, J., Gyuk, G., Hanna, D., Holder, J., Huan, H., Hughes, G., Humensky, T.B., Kaaret, P., Karlsson, N., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Lang, M.J., Lebohec, S., Lee, K., Lyutikov, M., Madhavan, A.S., Maier, G., Majumdar, P., McArthur, S., McCann, A., Moriarty, P., Mukherjee, R., Nelson, T., De Bhróithe, A.O., Ong, R.A., Orr, M., Otte, A.N., Park, N., Perkins, J.S., Pohl, M., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Saxon, D.B., Schroedter, M., Sembroski, G.H., Şentürk, G.D., Smith, A.W., Staszak, D., Telezhinsky, I., Tešić, G., Theiling, M., Thibadeau, S., Tsurusaki, K., Varlotta, A., Vincent, S., Vivier, M., Wagner, R.G., Wakely, S.P., Weekes, T.C., Weinstein, A., Welsing, R., Williams, D.A., Zitzer, B., Kondratiev, V. (2012), Search for a correlation between very-high-energy gamma rays and giant radio pulses in the Crab pulsar, Astrophysical Journal, Volume 760, Issue 2.
- 16. O'Donnell, N., Corcoran, D., Lucey, B., Barrett, A. (2012), Molecular-based mycobacterial identification in a clinical laboratory setting: A comparison of two methods, British Journal of Biomedical Science, Volume 69, Issue 4.
- 17. O'Mahony, K., Liang, J., Delaney, K. (2012), User-centric personalization and autonomous reconfiguration across Ubiquitous Computing environments, UBICOMM 2012 6th International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies.
- 18. Beder, C., Klepal, M. (2012), Fingerprinting based localisation revisited: A rigorous approach for comparing RSSI measurements coping with missed access points and differing antenna attenuations, 2012 International Conference on Indoor Positioning and Indoor Navigation, IPIN 2012 Conference Proceedings.
- 19. Koziel, M., Lucey, B., Bullman, S., Corcoran, G.D., Sleator, R.D. (2012), Molecular-based detection of the gastrointestinal pathogen Campylobacter ureolyticus in unpasteurized milk samples from two cattle farms in Ireland, Gut Pathogens, Volume 4, Issue 1.
- Aliu, E., Archambault, S., Arlen, T., Aune, T., Beilicke, M., Benbow, W., Böttcher, M., Bouvier, A., Buckley, J.H., Bugaev, V., Cesarini, A., Ciupik, L., Collins-Hughes, E., Connolly, M.P., Cui, W., Dickherber, R., Duke, C., Dumm, J., Errando, M., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Godambe, S., Griffin, S., Grube, J., Gyuk, G., Hanna, D., Holder, J., Huan, H., Kaaret, P., Karlsson, N., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Lee, K., Madhavan, A.S., Maier, G., Majumdar, P., McArthur, S., McCann, A., Moriarty, P., Mukherjee, R., Nelson, T., De Bhróithe, A.O., Ong, R.A., Orr, M., Otte, A.N., Park, N., Perkins, J.S., Pichel, A., Pohl, M., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Saxon, D.B., Sembroski, G.H., Staszak, D., Telezhinsky, I., Tešić, G., Theiling, M., Thibadeau, S., Tsurusaki, K., Varlotta, A., Vassiliev, V.V., Vincent, S., Vivier, M., Wakely, S.P., Weekes, T.C., Weinstein, A., Welsing, R., Williams, D.A., Zitzer, B., Fortin, P., Horan, D., Fumagalli, M., Kaplan, K., Prochaska, J.X. (2012), Veritas observations of six bright, hard-spectrum Fermi-lat blazars, Astrophysical Journal, Volume 759, Issue 2.
- 21. Habruseva, T., Hegarty, S.P., Vladimirov, A.G., Pimenov, A., Rachinskii, D., Rebrova, N., Viktorov, E.A., Huyet, G. (2012), Bistable regimes in an optically injected mode-locked laser, Optics Express, Volume 20, Issue 23.
- 22. Sandra, G., Schwab, C., Bello, F.D., Coffey, A., Gänzle, M., Arendt, E. (2012), Comparison of the impact of dextran and reuteran on the quality of wheat sourdough bread, Journal of Cereal Science, Volume 56, Issue 3.
- 23. *Moriarty, M., Lee, A., O'Connell, B., Lehane, M., Keeley, H., Furey, A.* (2012), The application and validation of HybridSPE-Precipitation cartridge technology for the rapid clean-up of serum matrices (from phospholipids) for the clinical analysis of serotonin, dopamine and melatonin, Chromatographia, Volume 75, Issue 21-22.
- 24. *Galbraith, J.G., O'Leary, D.P., Dailey, H.L., Kennedy, T.E., Mitra, A., Harty, J.A.* (2012), Preoperative estimation of tibial nail length Because size does matter, Injury, Volume 43, Issue 11.
- 25. *Ryan, S., Gleeson, D., Jordan, K., Furey A., O'Brien, B.* (2012), Evaluation of trichloromethane formation from chlorine-based cleaning and disinfection agents in cow's milk, International Journal of Dairy Technology, Volume 65, Issue 4.
- 26. Jones, L., Kinsella, B., Furey, A., Regan, F. (2012), Monitoring the occurrence of PAHs in Irish wastewater effluent, Journal of Environmental Monitoring, Volume 14, Issue 11.
- 27. Power, C., Sayers, R., O'Brien, B., Bloemhoff, Y., Danaher, M., Furey, A., Jordan, K. (2012), Partitioning of nitroxynil, oxyclozanide and levamisole residues from milk to cream, skim milk and skim milk powder, International Journal of Dairy Technology, Volume 65, Issue 4.
- 28. Sleator, R.D. (2012), Digital Biology: A new era has begun, Bioengineered, Volume 3, Issue 6.

- 29. Alsakarneh, A., Bryan, K., Cotterell, M., Barrett, J. (2012), The influence of equipment variations on sliotar-hurley impact in the Irish game of hurling, Sports Engineering, Volume 15, Issue 4.
- 30. Feeney, A., Sleator, R.D. (2012), The human gut microbiome: the ghost in the machine, Future Microbiology, Volume 7, Issue 11
- 31. Dunne, H., Murphy, J., Ruane, K. (2012), Transverse load distribution in masonry arch bridges, Life-Cycle and Sustainability of Civil Infrastructure Systems Proceedings of the 3rd International Symposium on Life-Cycle Civil Engineering, IALCCE Conference 2012.
- 32. *Kehoe, S., Zhang, X.F., Lewis, L., O'Shea, H., Boyd, D.* (2012), Characterisation of PLGA based composite nerve guidance conduits: Effect of F127 content on modulus over time in simulated physiological conditions, Journal of the Mechanical Behaviour of Biomedical Materials, Volume 14.
- 33. Axel, C., Zannini, E., Coffey, A., Guo, J., Waters, D.M., Arendt, E.K. (2012), Eco-friendly control of potato late blight causative agent and the potential role of lactic acid bacteria: A review, Applied Microbiology and Biotechnology, Volume 96, Issue 1.
- 34. Arlen, T., Aune, T., Beilicke, M., Benbow, W., Bouvier, A., Buckley, J.H., Bugaev, V., Byrum, K., Cannon, A., Cesarini, A., Ciupik, L., Collins-Hughes, E., Connolly, M.P., Cui, W., Dickherber, R., Dumm, J., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Godambe, S., Griffin, S., Grube, J., Gyuk, G., Holder, J., Huan, H., Hughes, G., Humensky, T.B., Imran, A., Kaaret, P., Karlsson, N., Kertzman, M., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Lee, K., Madhavan, A.S., Maier, G., Majumdar, P., McArthur, S., McCann, A., Moriarty, P., Mukherjee, R., Nelson, T., O'Faoláin De Bhróithe, A., Ong, R.A., Orr, M., Otte, A.N., Park, N., Perkins, J.S., Pohl, M., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Ruppel, J., Saxon, D.B., Schroedter, M., Sembroski, G.H., Skole, C., Smith, A.W., Telezhinsky, I., Tešić, G., Theiling, M., Thibadeau, S., Tsurusaki, K., Varlotta, A., Vivier, M., Wakely, S.P., Ward, J.E., Weinstein, A., Welsing, R., Williams, D.A., Zitzer, B., Pfrommer, C., Pinzke, A. (2012), Constraints on cosmic rays, magnetic fields, and dark matter from gamma-ray observations of the coma cluster of galaxies with veritas and Fermi, Astrophysical Journal, Volume 757, Issue 2.
- 35. *Do, C., Lishchynska, M., Delaney, K., Hill, M.* (2012), Generalised closed-form models for pull-in analysis of micro cantilever beams subjected to partial electrostatic load, Sensors and Actuators, A: Physical, Volume 185.
- 36. *Culligan, E.P., Sleator, R.D., Marchesi, J.R., Hill, C.* (2012), Functional metagenomics reveals novel salt tolerance loci from the human gut microbiome, ISME Journal, Volume 6, Issue 10.
- 37. Thoma, J., Ochalski, T.J., Hugues, M., Zhang, S., Hegarty, S.P., Huyet, G. (2012), Optical properties of hybrid quantum dot/quantum well active region based on GaAs system, Journal of Applied Physics, Volume 112, Issue 6.
- 38. Raiteri, C.M., Villata, M., Smith, P.S., Larionov, V.M., Acosta-Pulido, J.A., Aller, M.F., D'Ammando, F., Gurwell, M.A., Jorstad, S.G., Joshi, M., Kurtanidze, O.M., Lähteenmäki, A., Mirzaqulov, D.O., Agudo, I., Aller, H.D., Arévalo, M.J., Arkharov, A.A., Bach, U., Benítez, E., Berdyugin, A., Blinov, D.A., Blumenthal, K., Buemi, C.S., Bueno, A., Carleton, T.M., Carnerero, M.I., Carosati, D., Casadio, C., Chen, W.P., Di Paola, A., Dolci, M., Efimova, N.V., Ehgamberdiev, S.A., Gómez, J.L., González, A.I., Hagen-Thorn, V.A., Heidt, J., Hiriart, D., Holikov, S., Konstantinova, T.S., Kopatskaya, E.N., Koptelova, E., Kurtanidze, S.O., Larionova, E.G., Larionova, L.V., León-Tavares, J., Leto, P., Lin, H.C., Lindfors, E., Marscher, A.P., McHardy, I.M., Molina, S.N., Morozova, D.A., Mujica, R., Nikolashvili, M.G., Nilsson, K., Ovcharov, E.P., Panwar, N., Pasanen, M., Puerto-Gimenez, I., Reinthal, R., Richter, G.M., Ros, J.A., Sakamoto, T., Schwartz, R.D., Sillanpää, A., Smith, N., Takalo, L.O., Tammi, J., Taylor, B., Thum, C., Tornikoski, M., Trigilio, C., Troitsky, I.S., Umana, G., Valcheva, A.T., Wehrle, A.E. (2012), Variability of the blazar 4C 38.41 (B3 1633+382) from GHz frequencies to GeV energies, Astronomy and Astrophysics, Volume 545.
- 39. Alsakarneh, A., Quinn, B., Kelly, G., Barrett, J. (2012), Modelling and simulation of the coefficient of restitution of the sliotar in hurling, Sports Biomechanics, Volume 11, Issue 3.
- 40. *Cashman, O., O'Shea, H.* (2012), Detection of human bocaviruses 1, 2 and 3 in Irish children presenting with gastroenteritis, Archives of Virology, Volume 157, Issue 9.
- 41. *Pawlowska, A.M., Zannini, E., Coffey, A., Arendt, E.K.* (2012), "Green Preservatives": Combating Fungi in the Food and Feed Industry by Applying Antifungal Lactic Acid Bacteria, Advances in Food and Nutrition Research, Volume 66.
- 42. *Do, C., Lishchynska, M., Cychowski, M., Delaney, K., Hill, M.* (2012), Energy-based approach to adaptive pulse shaping for control of RF-MEMS DC-contact switches, Journal of Microelectromechanical Systems, Volume 21, Issue 6.
- 43. *Moore, L., Barrett, J.* (2012), Board-folding method for fabrication of 3-D system in package devices, IEEE Transactions on Components, Packaging and Manufacturing Technology, Volume 2, Issue 7.

- 44. Young, P., Byrne, G., Cotterell, M. (2012), Manufacturing and the environment, International Journal of Precision Engineering and Manufacturing, Volume 13, Issue 7.
- 45. *Moore, L., Barrett, J.* (2012), Embedded module for 3-D mechanical strain measurement, IEEE Transactions on Components, Packaging and Manufacturing Technology, Volume 2, Issue 6.
- 46. Wilson, A. (2012), 'Christina Jessop's Picture Postcard Album, 1902 to 1908', paper presented at the Small Histories Conference, National Library of Ireland, Dublin.
- 47. Wilson, A. (2012), The Church of the Annunciation in Blackpool, Cork, documentary made for radio UCC 98.3FM and published on the CD Church Art & Architecture in Cork.
- 48. Wilson, A. (2012) 'The material and visual culture of the construction of Irish Catholic identity, 1879 to 1922', paper presented at Material Religion in Modern Britain and her Worlds, University of Glamorgan, Cardiff.
- 49. Wilson, A. (2012), 'Ireland, Design and visual culture: Negotiating Modernity, 1922 to 1992, edited by Linda King and Elaine Sisson, book review, Artefact 5.
- 50. Ding, B., Cychowski, M.T., Xi, Y., Cai, W., Huang, B. (2012), Model predictive control, Journal of Control Science and Engineering, Editorial.
- 51. *Hogan, T., Hornecker, E.* (2012), How Does Representation Modality Affect User-Experience of Data Artefacts? (pp 141-151), In Proc. of HAID 2012. Lund, Sweden.
- 52. Hogan, T., Hornecker, E. (2012), Beyond Data Visualisations. Beyond Data (pp 131-136). Baltan Laboratories & Kitchen Budapest.
- 53. Hogan, T. (2012) Toward a Phenomenology of Human-Data Relations, Doctoral Consortium DIS 2012.
- 54. *Eguchi, H., O'Donovan, D.* (2012), Evaluation of labour productivity using a corrected production staff number approach in the chemical industry, Journal of Chemical Engineering of Japan, Volume 45, Issue 3.
- 55. Sheridan, I., Murphy, J.P., (Eds) (2012), Customised Learning Development An Exploration of Practice, CIT Press, Cork.
- 56. Barry-Murphy, C., Sheridan, I. (2012), 'CIT Extended Campus an exemplar of supported Engagement in Higher Education in Ireland', paper presented at the EADTU Annual Conference, Cyprus.
- 57. O'Donovan, A., O'Sullivan, S., Sheridan, I. (2012), 'The impact on student learning of Investment in Technical Strategy Embedding Blogs and Wikis into Learning', Paper included on Report on Supported Flexible Learning Project undertaken by the Institutes of Technology Ireland, Enhancing Flexibility in Higher Education.
- 58. Sheridan, I., Barry-Murphy, C., Fallon, D. (2012), 'Internships as a bridge to deeper engagement', EAIE Forum.
- 59. Donnellan, T., Hanrahan, K., Hennessy, T., O'Connor, D., Keane, M., Kelly, E. (2012), Risk Management in the Irish Dairy Sector, TResearch, Volume 7, Issue 4.
- 60. Kelly, E., O'Connor, D., Keane, M. (2012), The effect of policy changes on volatility in dairy markets, AESI Annual Conference.
- 61. *O'Leary P., O'Sullivan, S.* (2012), Exploration of Reflection results in 'Valuing Learning' Site, presentation at LIN Conference Inspiring Creativity, Innovation and Change in Higher Education.
- 62. O'Leary P., O'Sullivan, S. (2012), Action Research Approach to Improving Recognition of Prior Learning (RPL) Website. Poster presented at LIN Conference Inspiring Creativity, Innovation and Change in Higher Education.
- 63. O'Connor, D., Hennessy, D., Shalloo, L., Hurtado-Uria, C. (2012), An examination of the Volatile Nature of Grass Production in Ireland, 123rd Seminar, European Association of Agricultural Economists.
- 64. Sleator, R.D. (2012), Prediction of protein functions, Methods in Molecular Biology, Volume 815
- 65. Clohessy, M., Kenny, B. (2012), Organisational Factors Determining Export Performance and Electronic commerce Adoption: An Empirical Investigation, Irish Business Journal, Volume 7, No. 1.
- 66. *Kenny, B., Dooley, L.* (2012), Entrepreneurial Networks and Commercialisation of Research within the PhD Community, paper presented at the ISBE Conference, DCU, Dublin.

- 67. Dempsey, S., Vance, R., Sheehan, L. (2012), Justification of an upgrade of an Enterprise Resource Planning (ERP) System: the accountants role, paper presented at the Irish Accounting and Finance Association's 25th Annual Conference, NUI Galway.
- 68. *Dempsey, S., Sheehan, L.* (2012), Deciding to upgrade your Enterprise Resource Planning (ERP) system: other than the cost, what other factors should be considered, IATI Newsletter, Technical Matters.
- 69. O'Flynn, R., Linehan, M. (2012), The importance of leadership for implementing change: Lessons from an Irish Higher Education Institution, IAM Conference, NUI Maynooth.
- 70. Courtney, D. (2012), The Development of Social Care Education and Training in Ireland, paper presented at Social Care Ireland Conference for inclusion in the Irish Journal of Applied Social Studies.
- 71. De Roiste, A., Gilmore, M. (2012), Early interventions in early childhood education and care in Early Childhood Education & Care: An introduction for Students in Ireland.
- 72. *Jenkins, M.* (2012), The legal framework for early childhood education and care, in Early Childhood Education & Care: An introduction for Students in Ireland.
- 73. Moynihan, J. (2012), Children's literature and early literacy in Early Childhood Education & Care: An introduction for Students in Ireland.
- 74. O'Donovan, D., Linehan, M. (2012), Implications of cultural diversity on goal setting and feedback: An investigation of performance management in Irish Hotels, paper presented at Irish Academy of Management Conference, NUI Maynooth.
- 75. O'Flynn, R., Linehan, M. (2012), The importance of leadership for implementing change: Lessons from an Irish Higher Education Institution, paper presented at Irish Academy of Management Conference, NUI Maynooth.
- 76. Ó Súilleabháin, G., Coakley, D., Sime, J. (2012), Player Transfer: Key skills transfer in digital sports games, paper presented at the Ed Tech 2012 Conference, NUI Maynooth.
- 77. Ó Súilleabháin, G. (2012), "Foregone Conclusions: How Old Learning Makes New", paper presented at TEDxCIT Conference, CIT Cork School of Music.
- 78. Ward, A., Stessel, A. (2012), "Dark tourism: An assessment of the motivations of visitors to Auschwitz Birkenau, Poland", Irish Business Journal, Volume 7, No. 1.
- 79. O'Donovan, R., O'Rourke, B.D., Ruane, K.D., Murphy, J.J. (2013), Anaerobic corrosion of reinforcement, Key Engineering Materials, Volume 569-570.
- 80. Helmle, S., Dehm, M., Kuhn, M., Lieckfeldt, D., Pesch, D. (2013), Feedback delay and its impact on adaptive modulation and coding in VHF narrowband mobile ad-hoc networks, Wireless Telecommunications Symposium.
- 81. Singh, J., Pesch, D. (2013), Smart error-control strategy for low-power communication in wireless networked control system, Article in Telecommunication Systems.
- 82. Sleator, R.D., O'Driscoll, A. (2013), Digitising humanity, Artificial DNA: PNA and XNA, Volume 4, Issue 2.
- 83. *Bullman, S., Lucid, A., Corcoran, D., Sleator, R.D., Lucey, B.* (2013), Genomic Investigation into Strain Heterogeneity and Pathogenic Potential of the Emerging Gastrointestinal Pathogen Campylobacter ureolyticus, PLoS ONE, Volume 8, Issue 8.
- 84. *Srirangarajan, S., Pesch, D.* (2013), Source localisation using graph-based optimisation technique, IEEE Wireless Communications and Networking Conference.
- 85. *Rea, S., Aslam, M.S., Pesch, D.* (2013), Serviceware-A service based management approach for WSN cloud infrastructures, 2013 IEEE International Conference on Pervasive Computing and Communications Workshops, PerCom Workshops 2013.
- 86. *Kim, D.-G., Rafique, R., Leahy, P., Cochrane, M., Kiely, G.* (2013), Estimating the impact of changing fertilizer application rate, land use, and climate on nitrous oxide emissions in Irish grasslands, Article in Plant and Soil.
- 87. Slepneva, S., Kelleher, B., O'Shaughnessy, B., S.Hegarty, P., Vladimirov, A.G., Huyet, G. (2013), Dynamics of Fourier domain mode-locked lasers, Optics Express, Volume 21, Issue 16.
- 88. O'Mahony, T. (2013), Assessing engineering learning: Formative, summative and dialogical, IEEE Global Engineering Education Conference, EDUCON.

- 89. Wilson, A. (2013), 'Backwards and forwards: Irish Catholic visual culture and modernism', paper delivered at the Conference Modernism, Memory and Media: Ireland 1913 1916, NUI Maynooth.
- 90. Wilson, A. (2013), 'Catholic Ireland, construction and imaging', paper delivered at the European Federation of Associations and Centres of Irish Studies (EFACIS) Conference, Towards 2016: Old and New Irelands, NUI Galway.
- 91. *Hogan, T., Hornecker, E.* (2013), Blending the repertory grid technique with focus groups to reveal rich design relevant insight. Designing Pleasurable Products and Interfaces, ACM 2013, 116-125.
- 92. *Hogan, T., Hornecker, E.* (2013), The Personal Construction of Representation Modality. In Proceedings of the 6th Irish Human-Computer Interaction Conference (iHCl 2013), ACM, 107-111.
- 93. Hogan, T., Hornecker, E. (2013), In Touch with Space: Embodying Live Data for Tangible Interaction. Proc. Of TEI 2013, ACM, 275-278.
- 94. *Dempsey, S., Vance, R., Sheehan, L.* (2012), Justification of an upgrade of an Enterprise Resource Planning (ERP) System: the accountants role, Irish Accounting and Finance, Volume 19 (2).
- 95. *Cronin, S., Garvey, R.* (2013), Remote labs Access in Multimedia for Information and Communication Systems, IEEE Global Engineering Education Conference, EDUCON.
- 96. *Tawfik, M., Sancristobal, E., Diaz, G., Tzanova, S., Cronin, S., Kreiner, C., Milev, M., Mileva, N., Castro, M.* (2013), Special session: Remote-labs access in internet and performance learning environment projects, IEEE Global Engineering Education Conference, EDUCON.
- 97. Helmle, S., Dehm, M., Kuhn, M., Lieckfeldt, D., Pesch, D. (2013), Resource efficient model of spatially correlated shadowing in semi-mobile ad-hoc network simulations, Proceedings UKSim 15th International Conference on Computer Modelling and Simulation.
- 98. *Purcell, P., Tyndyk, M., McEvoy, F., Tiernan, S., Morris, S.* (2013), Stress distribution at the bone-cement interface changes during Kyphoplasty rehabilitation, Proceedings 29th Southern Biomedical Engineering Conference, SBEC 2013.
- 99. Koziel, M., Kiely, R., Blake, L., O'Callaghan, I., Corcoran, G.D., Lucey, B., Sleator, R.D. (2013), Improved detection of bacterial pathogens in patients presenting with gastroenteritis by use of the EntericBio real-time Gastro Panel I assay, Journal of Clinical Microbiology, Volume 51, Issue 8.
- 100. Gonec, T., Kos, J., Zadrazilova, I., Pesko, M., Govender, R., Keltosova, S., Chambel, B., Pereira, D., Kollar, P., Imramovsky, A., O'Mahony, J., Coffey, A., Cizek, A., Kralova, K., Jampilek, J. (2013), Antibacterial and herbicidal activity of ring-substituted 2-hydroxynaphthalene-1-carboxanilides, Molecules, Volume 18, Issue 8.
- 101. Flaherty, C., Begley, M., Hill, C. (2013), Investigation of the use of a cocktail of Lux-tagged Cronobacter strains for monitoring growth in infant milk formulae, Journal of Food Protection, Volume 76, Issue 8.
- 102. *Gabriel, E.M., Coffey, A., O'Mahony, J.M.* (2013), Investigation into the prevalence, persistence and antibiotic resistance profiles of staphylococci isolated from euro currency, Journal of Applied Microbiology, Volume 115, Issue 2.
- 103. Goggin, D. (2013), Two Decades of RPL in Ireland: Practitioner Views, DIT Online Journal, Level 3.
- 104. *Goggin, D.* (2013), 'Empowering students through mentoring, learning and reflective portfolios', International Enhancement Themes Conference on Enhancement and Innovation in Higher Education.
- 105. O'Leary, P., O'Sullivan, S. (2013), 'E-Portfolios can support students with Recognition of Prior Learning case preparation', poster presented at InTed Conference.
- 106. O'Leary, P. (2013), 'Future proof your path through life, capture your lifelong learning as it occurs', presentation at lifelong learning event; 'Your Operation Transformation'.
- 107. O'Leary, P. (2013), 'An Exploration of Student Focused Initiatives to support Recognition of Prior Learning Case Preparation', presentation to 2nd Annual Limerick Postgraduate Research Conference, University of Limerick.
- 108. O'Leary, P. (2013), Two decades of RPL in Ireland; Practitioner Views, DIT Online Journal, Level 3.
- 109. O'Leary, P. (2013), Using e-Portfolios to capture non formal and informal learning, Virtual presentation at the 5th International Conference on Education and New Learning Technologies, Barcelona.

- 110. Sheridan, I., Madden, H., Barry-Murphy, C. (2013), 'A customer relationship management to support/academic enterprise', paper presented at University Industry Interaction Conference, Amsterdam.
- 111. Morrissey, P.E., Cotter, W., Goulding, D., Kelleher, B., Osborne, S., Yang, H., O'Callaghan, J., Roycroft, B., Corbett, B., Peters, F.H. (2013), On-chip optical phase locking of single growth monolithically integrated slotted fabry perot lasers, Optics Express, Volume 21, Issue 14.
- 112. Crowley, M.T., Houlihan, J., Piwonski, T., O'Driscoll, I., Williams, D.P., O'Reilly, E.P., Uskov, A.V., Huyet, G. (2013), Refractive index dynamics of InAs/GaAs quantum dots, Applied Physics Letters, Volume 103, Issue 2.
- 113. Sleator, R.D. (2013), A Beginner's Guide to Phylogenetics, Microbial Ecology, Volume 66, Issue 1.
- 114. *Murphy, P., Dal Bello, F., O'Doherty, J., Arendt, E.K., Sweeney, T., Coffey, A.* (2013), Analysis of bacterial community shifts in the gastrointestinal tract of pigs fed diets supplemented with β-glucan from Laminaria digitata, Laminaria hyperborea and Saccharomyces cerevisiae, Animal, Volume 7, Issue 7.
- 115. Morrissey, R., Hill, C., Begley, M. (2013), Shining light on food microbiology; applications of Lux-tagged microorganisms in the food industry, Trends in Food Science and Technology, Volume 32, Issue 1.
- 116. Srirangarajan, S., Allen, M., Preis, A., Iqbal, M., Lim, H.B., Whittle, A.J. (2013), Wavelet-based burst event detection and localization in water distribution systems, Journal of Signal Processing Systems, Volume 72, Issue 1.
- 117. Coppinger, T., Jeanes, Y.M., Mitchell, M., Reeves, S. (2013), Beverage consumption and BMI of British schoolchildren aged 9-13 years, Public Health Nutrition, Volume 16, Issue 7.
- 118. Shortle, E., Kerry, J., Furey, A., Gilroy, D. (2013), Optimisation of process variables for antioxidant components from Crataegus monogyna by supercritical fluid extraction (CO2) using Box-Behnken experimental design, Journal of Supercritical Fluids, Volume 81.
- 119. Aliu, E., Archambault, S., Arlen, T., Aune, T., Beilicke, M., Benbow, W., Bird, R., Bouvier, A., Bradbury, S.M., Buckley, J.H., Bugaev, V., Byrum, K., Cannon, A., Cesarini, A., Ciupik, L., Collins-Hughes, E., Connolly, M.P., Cui, W., Dickherber, R., Duke, C., Dumm, J., Dwarkadas, V.V., Errando, M., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Gillanders, G.H., Godambe, S., Gotthelf, E.V., Griffin, S., Grube, J., Gyuk, G., Hanna, D., Holder, J., Huan, H., Hughes, G., Humensky, T.B., Kaaret, P., Karlsson, N., Kertzman, M., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Lang, M.J., Lee, K., Madhavan, A.S., Maier, G., Majumdar, P., McArthur, S., McCann, A., Millis, J., Moriarty, P., Mukherjee, R., Nelson, T., O'Faoláin De Bhróithe, A., Ong, R.A., Orr, M., Otte, A.N., Pandel, D., Park, N., Perkins, J.S., Pohl, M., Popkow, A., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Rose, H.J., Ruppel, J., Saxon, D.B., Schroedter, M., Sembroski, G.H., Şentürk, G.D., Skole, C., Telezhinsky, I., Tešić, G., Theiling, M., Thibadeau, S., Tsurusaki, K., Tyler, J., Varlotta, A., Vassiliev, V.V., Vincent, S., Wakely, S.P., Ward, J.E., Weekes, T.C., Weinstein, A., Weisgarber, T., Welsing, R., Williams, D.A., Zitzer, B. (2013), Discovery of TeV gamma-ray emission toward supernova remnant SNR G78.2+2.1, Astrophysical Journal, Volume 770, Issue 2.
- 120. Power, C., Danaher, M., Sayers, R., O'Brien, B., Whelan, M., Furey, A., Jordan, K. (2013), Investigation of the persistence of rafoxanide residues in bovine milk and fate during processing, Food Additives and Contaminants Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, Volume 30, Issue 6.
- 121. Power, C., Whelan, M., Danaher, M., Bloemhoff, Y., Sayers, R., O'Brien, B., Furey, A., Jordan, K. (2013), Investigation of the persistence of triclabendazole residues in bovine milk following lactating-cow and dry-cow treatments, Food Additives and Contaminants Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, Volume 30, Issue 6.
- 122. *Harrington, J.R., Harrington, S.T.* (2013), Sediment and nutrient behaviour on the river Bandon, Ireland, WIT Transactions on Ecology and the Environment Conference, Volume 172.
- 123. Sooudi, E., De Dios, C., McInerney, J.G., Huyet, G., Lelarge, F., Merghem, K., Rosales, R., Martinez, A., Ramdane, A., Hegarty, S.P. (2013), A novel scheme for two-level stabilization of semiconductor mode-locked lasers using simultaneous optical injection and optical feedback, IEEE Journal on Selected Topics in Quantum Electronics, Volume 19, Issue 4.
- 124. Furey, A., Moriarty, M., Bane, V., Kinsella, B., Lehane, M. (2013), Ion suppression; A critical review on causes, evaluation, prevention and applications, Talanta, Volume 115.
- 125. *Dailey, H.L., Daly, C.J., Galbraith, J.G., Cronin, M., Harty, J.A.* (2013), The Flexible Axial Stimulation (FAST) intramedullary nail provides interfragmentary micromotion and enhanced torsional stability, Article in Clinical Biomechanics.
- 126. Ryan, S., Gleeson, D., Jordan, K., Furey, A., O'Sullivan, K., O'Brien, B. (2013), Strategy for the reduction of Trichloromethane residue levels in farm bulk milk, Journal of Dairy Research, Volume 80, Issue 2.

- 127. *Sriragarajan, S., Pesch, D.* (2013), Poster abstract: Occupancy estimation using real and virtual sensors, IPSN 2013 Proceedings of the 12th International Conference on Information Processing in Sensor Networks, Part of CPS Week 2013.
- 128. Goulding, D., Power, N. (2013), Which is the preferable biogas utilisation technology for anaerobic digestion of agricultural crops in Ireland: Biogas to CHP or biomethane as a transport fuel? Article in Renewable Energy, Volume 53.
- 129. Looney, M., Shea, H.O., Gunn, L., Crowley, D., Boyd, D. (2013), An evaluation of the processing conditions, structure, and properties (biaxial flexural strength and antibacterial efficacy) of sintered strontium-zinc-silicate glass ceramics, Journal of Biomaterials Applications, Volume 27, Issue 8.
- 130. O'Driscoll, A., Sleator, R.D. (2013), Synthetic DNA: The next generation of big data storage, Bioengineered, Volume 4, Issue 3.
- 131. Pavarelli, N., Ochalski, T.J., Murphy-Armando, F., Huo, Y., Schmidt, M., Huyet, G., Harris, J.S. (2013), Optical emission of a strained direct-band-gap ge quantum well embedded inside InGaAs alloy layers, Physical Review Letters, Volume 110, Issue 17.
- 132. Murphy, P., Bello, F.D., O'Doherty, J., Arendt, E.K., Sweeney, T., Coffey, A. (2013), The effects of liquid versus spray-dried Laminaria digitata extract on selected bacterial groups in the piglet gastrointestinal tract (GIT) microbiota, Anaerobe, Volume 21.
- 133. Singh, J., Pesch, D. (2013), Application of energy efficient soft-decision error control in wireless sensor networks, Telecommunication Systems, Volume 52, Issue 4.
- 134. *Manning, T., Walsh, P.* (2013), Improving the performance of CGPANN for breast cancer diagnosis using crossover and radial basis functions, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (Conference Paper).
- 135. *Thoma, J., Liang, B., Lewis, L., Hegarty, S.P., Huyet, G., Huffaker, D.L.* (2013), Carrier localisation and in-situ annealing effect on quaternary Ga 1-xlnxAsySb1-y/GaAs quantum wells grown by Sb pre-deposition, Applied Physics Letters, Volume 102, Issue 11.
- 136. Fenton, M., Keary, R., McAuliffe, O., Ross, R.P., O'Mahony, J., Coffey, A. (2013), Bacteriophage-derived peptidase CHAPK eliminates and prevents staphylococcal biofilms, Article in the International Journal of Microbiology.
- 137. Sleator, R.D. (2013), Synthetic ribosomes: Making molecules that make molecules, Bioengineered, Volume 4, Issue 2.
- 138. Rubert, J., Soler, C., Marín, R., James, K.J., Mañes, J. (2013), Mass spectrometry strategies for mycotoxins analysis in European beers, Food Control, Volume 30, Issue 1.
- 139. Rourke, S.O. (2013), Affine actions on non-archimedean trees, International Journal of Algebra and Computation, Volume 23, Issue 2.
- 140. *Harrington, S.T., Harrington, J.R.* (2013), An assessment of the suspended sediment rating curve approach for load estimation on the Rivers Bandon and Owenabue, Ireland, Geomorphology, Volume 185.
- 141. *Griffin, C.T., Danaher, M., Elliott, C.T., Glenn Kennedy, D., Furey, A.* (2013), Detection of pyrrolizidine alkaloids in commercial honey using liquid chromatography-ion trap mass spectrometry, Food Chemistry, Volume 136.
- 142. Aliu, E., Archambault, S., Arlen, T., Aune, T., Beilicke, M., Benbow, W., Bouvier, A., Buckley, J.H., Bugaev, V., Cesarini, A., Ciupik, L., Collins-Hughes, E., Connolly, M.P., Cui, W., Dickherber, R., Duke, C., Dumm, J., Dwarkadas, V.V., Errando, M., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Gillanders, G.H., Godambe, S., Gotthelf, E.V., Griffin, S., Grube, J., Gyuk, G., Hanna, D., Holder, J., Hughes, G., Humensky, T.B., Kaaret, P., Kargaltsev, O., Karlsson, N., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Lang, M.J., Lee, K., Madhavan, A.S., Maier, G., Majumdar, P., McArthur, S., McCann, A., Moriarty, P., Mukherjee, R., Nelson, T., De Bhróithe, A.O., Ong, R.A., Orr, M., Otte, A.N., Park, N., Perkins, J.S., Pohl, M., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Roberts, M., Saxon, D.B., Schroedter, M., Sembroski, G.H., Slane, P., Smith, A.W., Staszak, D., Telezhinsky, I., Tešić, G., Theiling, M., Thibadeau, S., Tsurusaki, K., Tyler, J., Varlotta, A., Vassiliev, V.V., Vincent, S., Vivier, M., Wakely, S.P., Weekes, T.C., Weinstein, A., Welsing, R., Williams, D.A., Zitzer, B. (2013), Discovery of TeV gamma-ray emission from CTA 1 by Veritas, Astrophysical Journal, Volume 764, Issue 1.
- 143. *Thoma, J., Liang, B., Lewis, L., Hegarty, S.P., Huyet, G., Huffaker, D.L.* (2013), Electro-optical and lasing properties of hybrid quantum dot/quantum well material system for reconfigurable photonic devices, Applied Physics Letters, Volume 102, Issue 5.
- 144. Whelan, M., O'Mahony, J., Moloney, M., Cooper, K.M., Furey, A., Kennedy, D.G., Danaher, M. (2013), Maximum residue level validation of triclabendazole marker residues in bovine liver, muscle and milk matrices by ultra-high pressure liquid chromatography tandem mass spectrometry, Journal of Chromatography A, Volume 1275.

- 145. Hurtado-Uria, C., Hennessy, D., Shalloo, L., Schulte, R.P.O., Delaby, L., O'Connor, D. (2013), Evaluation of three grass growth models to predict grass growth in Ireland, Journal of Agricultural Science, Volume 151, Issue 1.
- 146. Arlen, T., Aune, T., Beilicke, M., Benbow, W., Bouvier, A., Buckley, J.H., Bugaev, V., Cesarini, A., Ciupik, L., Connolly, M.P., Cui, W., Dickherber, R., Dumm, J., Errando, M., Falcone, A., Federici, S., Feng, Q., Finley, J.P., Finnegan, G., Fortson, L., Furniss, A., Galante, N., Gall, D., Griffin, S., Grube, J., Gyuk, G., Hanna, D., Holder, J., Humensky, T.B., Kaaret, P., Karlsson, N., Kertzman, M., Khassen, Y., Kieda, D., Krawczynski, H., Krennrich, F., Maier, G., Moriarty, P., Mukherjee, R., Nelson, T., O'Faoláin De Bhróithe, A., Ong, R.A., Orr, M., Park, N., Perkins, J.S., Pichel, A., Pohl, M., Prokoph, H., Quinn, J., Ragan, K., Reyes, L.C., Reynolds, P.T., Roache, E., Saxon, D.B., Schroedter, M., Sembroski, G.H., Staszak, D., Telezhinsky, I., Tešić, G., Theiling, M., Tsurusaki, K., Varlotta, A., Vincent, S., Wakely, S.P., Weekes, T.C., Weinstein, A., Welsing, R., Williams, D.A., Zitzer, B., Jorstad, S.G., MacDonald, N.R., Marscher, A.P., Smith, P.S., Walker, R.C., Hovatta, T., Richards, J., Max-Moerbeck, W., Readhead, A., Lister, M.L., Kovalev, Y.Y., Pushkarev, A.B., Gurwell, M.A., Lähteenmäki, A., Nieppola, E., Tornikoski, M., Järvelä, E. (2013), Rapid TeV gamma-ray flaring of BL Lacertae, Astrophysical Journal, Volume 762, Issue 2.
- 147. Thoma, J., Liang, B., Reyner, C., Ochalski, T., Williams, D., Hegarty, S.P., Huffaker, D., Huyet, G. (2013), Electro-optic properties of GalnAsSb/GaAs quantum well for high-speed integrated optoelectronic devices, Applied Physics Letters, Volume 102, Issue 1.
- 148. Crowley, M.T., Heck, S.C., Healy, S.B., Osborne, S., Williams, D.P., Schulz, S., O'Reilly, E.P. (2013), Long wavelength transverse magnetic polarized absorption in 1.3 m InAs/InGaAs dots-in-a-well type active regions, Semiconductor Science and Technology, Volume 28, Issue 1.
- 149. Mills, S., Shanahan, F., Stanton, C., Hill, C., Coffey, A., Paul Ross, R. (2013), Movers and shakers: Influence of bacteriophages in shaping the mammalian gut microbiota, Gut Microbes, Volume 4, Issue 1.
- 150. Looney, M., Gough, O. (2013), A provision aware proportional fair sharing three colour marker, Journal of Network and Computer Applications, Volume 36, Issue 1.
- 151. Koziel, M., Corcoran, D., O'Callaghan, I., Sleator, R.D., Lucey, B. (2013), Validation of the EntericBio Panel II® multiplex polymerase chain reaction system for detection of Campylobacter spp., Salmonella spp., Shigella spp., and verotoxigenic E. coli for use in a clinical diagnostic setting, Diagnostic Microbiology and Infectious Disease, Volume 75, Issue 1.
- 152. Roshany-Yamchi, S., Cychowski, M., Negenborn, R.R., De Schutter, B., Delaney, K., Connell, J. (2013), Kalman filter-based distributed predictive control of large-scale multi-rate systems: Application to power networks, IEEE Transactions on Control Systems Technology, Volume 21, Issue 1.
- 153. Looney, M., O'Shea, H., Boyd, D. (2013), Preliminary evaluation of therapeutic ion release from Sr-doped zinc-silicate glass ceramics, Journal of Biomaterials Applications, Volume 27, Issue 5.
- 154. Endersen, L., Coffey, A., Neve, H., McAuliffe, O., Ross, R.P., O'Mahony, J.M. (2013), Isolation and characterisation of six novel mycobacteriophages and investigation of their antimicrobial potential in milk, International Dairy Journal, Volume 28, Issue 1.



4.4 External Development Links

Ongoing development of a Customer Relationship Management (CRM) system to support Higher Education engagement with Enterprise

The Microsoft Dynamics system introduced by the Extended Campus team and funded through the National Strategy Implementation funding by the HEA has now been adopted by 8'business units' within the Institute with over 40 licence holders.

Working with the departments, schools, faculties, research and CPD units the Extended Campus team uses the system to log all queries and to support good case management. The team log currently shows 157 different 'leads' entered on the system, each representing a potential engagement interaction between an academic or research unit of CIT and one or more external enterprises.

The types of leads include queries on:

- Use of facilities
- Student work placement/internship
- Recruitment
- Customised courses
- · Innovation vouchers
- Student project
- New business idea

In each case the CIT Extended Campus team creates the link for the external enterprise to the area of expertise within CIT and follows through to ascertain the progress on the query and identify those that transform into useful interactions.

In the development and implementation of the CRM system, CIT has been at the forefront nationally but the adoption of the system within the wider sector is gathering pace rapidly. CIT Extended Campus has been requested to demonstrate the system to Higher Education Institutions in Ireland and Europe – most recently to the University of Applied Sciences in Utrecht.

Marketing CIT's Engagement interactions

The CIT Extended Campus team has worked with a variety of internal players to develop 'case studies' to demonstrate the value of engagement and to stimulate new queries and leads. To date, 14 are published and available on the website ranging from research and development interactions and learning interactions to community engagement and work placement.

In July 2013, the CIT Extended Campus was elected as an IBEC Agenda Success Story in their latest newsletter. The following is the link to the newsletter:

http://agenda.ibec.ie/bc1ynt9q7151gr7enyr1jr?a=1&p=37750345&t=22181175

The CIT Extended Campus and the concept of connected engagement model also featured in a story and interview with Focus SME which was aired on Clare FM and Tipp FM and is available as a podcast here: https://soundcloud.com/small-business-show/bad-but-getting-better-1

The CIT Extended Campus newsletter continues to be published every two months with short current features on engagement interactions – the circulation is approximately 1,000. Copies of the newsletter are available here: http://www.cit.ie/extendedcampus/newsletter/

In addition, the CIT Extended Campus has approximately 1,000 twitter followers, and has attended a significant number of the business-facing events within the region distributing case studies and other extended campus materials.

Recognition of Prior Learning/Workbased Learning

CIT's national leadership in this space has been underlined by the selection of Deirdre Goggin as the Irish representative to the European RPL Network. Over the last 6 months, Ms Goggin has been asked to represent QQI at a number of national and international events and has also acted as advisor on RPL policy for a number of other institutions.

Locally the importance of RPL in ensuring meaningful access to education for those who have a variety of formal and non-formal learning has continued to grow with over 550 applications processed in the last academic year by over 150 assessors throughout the Institute ranging from Level 6 to Level 9.

Work-based learning continues to offer flexible and responsive opportunities to meet emerging learning and development needs within organisations.

Other projects

The CIT Extended Campus team continues to work on other projects in the space of engagement with enterprise at a local, national and international level. Some of these are listed below:

REAP/National Strategy Implementation: The REAP project has continued to grow and now includes IT Tralee and University of Limerick within the consortium. The project team are spearheading the development of structures and systems for Higher Education-Enterprise engagement and are working on the dissemination of those systems for Higher Education generally. In May 2013, the Project hosted a Business Breakfast chaired by George Hook aimed at exploring higher education engagement with SMEs in particular.

HEA/AmCham Internship project: Throughout 2012/13, Dr Irene Sheridan has coordinated the Higher Education side of the initiative and has supported the development of the outline call document for internship opportunities for STEM graduates. The CIT Extended Campus team will continue to support the important engagement aspect of this call.

UL Tacit Knowledge project: The CIT Extended Campus team is working to support the practice development in this UL-led project to collate, share and score tacit knowledge in the workplace in partnership with local industry.

Springboard and ICT skills: The CIT Extended Campus team continues to support the proposal, marketing, recruitment, management, and reporting of these initiatives – in 2013 the Institute was awarded funding of €430,000 under the ICT skills and €1.26m under Springboard.



4.5 International and EU Activities

International Activities

The need for institutions of higher education to embrace internationalisation has never been higher. Inter alia, the increasing demand for international education, the adoption of English as the global language of education, the globalisation of business, the ready availability of information and communications technologies, the pressure for higher education institutions to increasingly self-fund and the growing financial capacity of some major world powers have, in the view of many commentators, positioned internationalisation centrally in the strategic thinking of many institutions.

The Institute has long been engaged in the development of international relationships for the benefit of its students and other stakeholders. There is a growing and diverse number of international students in CIT, with approximately 1,000 full-time and part-time students currently registered with the Institute. Over many years, CIT has developed strong relationships with international institutions (primarily European) which have provided student exchange opportunities, staff development avenues and research outlets that would otherwise not have been available locally.

In more recent years, the Institute has developed a number of highly promising strategic relationships in India and is actively engaging with relevant institutions in China, Canada, Brazil and the Middle East. To further drive CIT's strategic international relationships, the Institute recruited two additional members of staff in 2013. In addition to organising the Institute's international recruitment and exchange activities, the international office team will focus on the provision of pastoral support for CIT's international students. This is particularly pertinent considering the imminent introduction of the International Education Mark.

CIT is committed to developing long-term, strategic relationships with educational institutions of high standing to ensure that its students are provided with opportunities to learn and develop in a truly international context.

EU Activities

Lifelong Learning/Erasmus Programme

During 2012/2013, the activities under the LLP Erasmus programme continued to develop. CIT was awarded an Extended Erasmus University Charter for the period 2007-2013, enabling the Institute to apply for mobility funding to finance and operate student study exchanges and placements, as well as academic staff exchanges and staff development visits, on an annual basis.

Funding totalling €138,298 was received from the HEA (Erasmus National Agency) for mobility activities to take place during the period from 1 June 2012 to 30 September 2013.

Erasmus Study Exchanges and Placements

During 2012 to 2013, nineteen students from the following disciplines participated in the Erasmus Study Exchange programme: Music, Art and Design, Multimedia, Business Studies, Social Care and Architecture. These students studied at Erasmus partner institutions in the following countries: Czech Republic, Spain, Austria, Finland, The Netherlands, Germany, and the UK.

Thirty-eight students from the Schools of Humanities, Science and Engineering, carried out Erasmus-funded placements at companies/organisations in Finland, Denmark, Germany, France, Spain, the UK and Malta.

The Institute also welcomed 197 incoming Erasmus students for study exchanges and placements in the following disciplines: Architecture, Biology, Business Studies, Civil Engineering, Construction, Computing, Electrical Engineering, Electronic Engineering, Media, Mechanical Engineering, Marine Engineering, Nautical Studies, Music, Physics, Recreation/Leisure, and Tourism. These students travelled from the following countries: France, Germany, Poland, Finland, The Netherlands, Czech Republic, Austria, Hungary, Greece, Spain, and Denmark.

Erasmus Staff Mobility

Sixteen Erasmus lecturing exchanges took place during the year. These included three incoming lecturing visits by industry experts from other European countries. These visits are a highly valued Erasmus-funded development, as they provide up to date industry/specialisation insights for students and staff. Academic staff visits to students on placement abroad were also funded during 2012-2013. Three staff members availed of Erasmus funded training visits to Germany, Italy, and Wales.

The following departments/colleges were involved in the exchange programme during this academic year:

- Accounting & Information Systems
- Applied Physics and Instrumentation
- Architecture
- Biological Sciences
- CIT Cork School of Music

- · CIT Crawford College of Art & Design
- · Civil, Structural & Environmental Engineering
- Computing
- Construction
- Process, Energy & Transport Engineering
- Chemistry
- · Electronic Engineering
- Management & Marketing
- Mechanical, Biomedical & Manufacturing Engineering
- · National Maritime College of Ireland
- Social & General Studies
- · Tourism & Hospitality Studies

Exchange Partnerships

CIT currently has Erasmus exchange agreements with over 100 European partner institutions. New agreements were signed in 2012/13 with the following institutions:

- · The University of Crete
- Institut Supérieur de Musique et de Pedagogie (IMEP) Namur, Belgium
- University of Granada (Fine Art)
- École Nationale d'Ingénieurs de Metz, France
- Nuremburg Institute of Technology
- Conservatorio di Musica Alfredo Casella, L'Aquila
- Koninklijk Conservatorium (Royal Conservatoire, University of the Arts, The Hague)

Erasmus Intensive Programmes

In March 2013, the Institute successfully applied for renewal of funding to coordinate two Erasmus Intensive Programmes to be run in the academic year 2013-2014. The total budget for the second year of these two programmes is just over €100,000.

The first "European Creative Futures" intensive programme took place in the Oslo Academy of Music, Norway. This programme has partners in Norway, the Netherlands, Finland, and the UK. The "Creative Live Learning" intensive programme was hosted in Cork by the CIT Crawford College of Art & Design. CIT Cork School of Music also hosted an intensive programme (in which it is a partner) during April 2013, entitled: Interdisciplinary Involvement and Community Spaces. CIT is also a partner in three other Intensive Programmes, which have been successfully funded, involving the Business Studies, Social & General Studies Departments, and the CIT CSM.

George J Mitchell Peace Scholarship

The Institute continued its participation in this scholarship exchange programme, which was established to commemorate the signing of the Good Friday Agreement. The Scholarship provides an opportunity for one semester exchanges for two students between CIT and the colleges in the Maine Community College System.



4.6 Campus Development

1. COADY REPORT ON THE 1974 MAIN BUILDING



Description:

The most pressing recommendation in this report was to replace the perished electric cables on the roof. This project (Phase 1) was completed in 2012. CIT is now seeking funding for future phases to include: full roof and atrium upgrade, fire upgrade works and window replacement.

Project Status:

Cost estimates for the priority projects listed above have been prepared and funding is being sought to progress these.

2. INDOOR SPORTS FACILITY



New Indoor Sports Facility

Description:

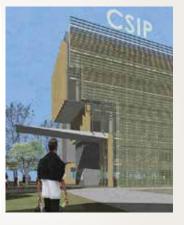
CIT undertook a feasibility study into the potential development of a new Indoor Sports provision. The study identified a specific need in a number of facilities for the enhancement of student welfare and satisfaction, to meet the demand of CIT's sports clubs and to enable a range of partners to support the development.

Project Status:

A steering group was established to prepare the design brief. The design consultant appointments are expected to be confirmed by November 2013. A Business Plan report is being prepared and is due to be completed by November 2013.

3. CORK SCIENCE AND INNOVATION PARK





Description:

The Cork Science and Innovation Park (CSIP) is to be established at the western edge of the city boundary in Curraheen. The CSIP is expected to concentrate on green energy and research advancement that will complement the work being done by the various institutions.

Project Status:

An implementation group has been established and a Masterplan and Business Plan developed.



4. CREATE BUILDING (PRTLI)



Description:

The Centre for Research in Advanced Therapeutic Engineering (CREATE) project consists of the construction of a standalone two-storey building with a total area of 1,533m².

Project Status:

The project started on site in February 2013 and is due for completion in November 2013.

ELECTRICAL & MECHANICAL WORK

5. COADY REPORT - PHASE 1 1974 MAIN BUILDING UPGRADE WORKS



Description:

This project is part of the 1st phase of the implementation of the 1974 Coady Report. Upgrade of existing sub main cables serving the Main Building for present and future capacity demands, upgrade of sub distribution boards, and construction of a pipe bridge linking the Main Building with the LV switchroom.

Project Status:

This project commenced in July 2012 and was completed in November 2012.

6. EXTENSION OF CIT CANTEEN FACILITIES (BISTRO)



Description:

Construction of a 200m² external plaza area with concrete paving, site furniture, planters and a sail roof.

Project Status:

The project started on site August 2012 and was completed in November 2012.

7. NEW ROAD STRUCTURE - UPGRADE OF A BLOCK CAR PARK



Description:

Realignment of road network and student car parking facilities with new entrance/exit barrier and associated site works.

Project Status:

The project started on site at the end of June 2012 and was completed in September 2012.

8. MELBOURN (TYCO) BUILDING REFURBISHMENT – PHASE 2



Description:

The work consists of a 4,000m² refurbishment of the old Tyco building now renamed the Melbourn Building. Phase 2 works were to accommodate an Examination Hall and the Architectural Department.

Project Status:

The Project was completed in November 2012 and the Architecture Department moved in January 2013. Relocation of the Examinations Office to the Melbourn Building took place in April 2013.

9. MELBOURN (TYCO) BUILDING REFURBISHMENT – PHASE 3 – E LEARNING CENTRE



Description

The project involved the fit out of the mezzanine (approx. 700m²) to accommodate an E Learning Centre which will include: programme provision for cloud computing, E Learning, Teaching & Learning Unit (TLU), and Computer Services.

Project Status:

The design process for the project started in October 2012; work started on site in June 2013 and is due for completion in September 2013.

10. C BLOCK GAS UPGRADE PROJECT



Description:

At present gas cylinders are located within the laboratories, a safety report recommended that these should be located externally in a gas compound with pipelines running to the point of use in the laboratories. This project will have safety features e.g. detection systems, automatic shut-off valves, alarms etc.

Project Status:

Phase 1 of the project to run the gas pipe lines internally and demolish the external wall at the end of the corridor was carried out during summer 2013. Phase 2 is planned for January 2014.

11. MAIN CANTEEN UPGRADE WORKS INCLUDING GLAZED SCREEN



Description:

The project upgrade was for the refurbishment of part of the main canteen to include new tills, new queuing systems to create a Food Court. The project also provided for a new dividing glazed screen between the main canteen and the adjacent corridor. The wall was designed with extensive fire rated glazing and doors throughout and allows the area to be closed off out-of-hours.

Project Status:

The work was carried out during summer 2013.

12. A and B BLOCK GAS UPGRADE PROJECT



Description:

Following on from the Safety Report carried out on the Main Building, it was recommended to carry out essential work to the gas lines and supplies in the building. At present a number of the labs in A and B Block have limited gas detection/gas proving systems. This project is to upgrade the gas detection/gas proving systems within the Ground and the First Floors of A and B Block.

Project Status:

Mechanical and Electrical consultants have been appointed for the project. The initial design stage of the project is complete and is due to go to tender in November 2013.

13. MACHINERY STORAGE FACILITY & ESB SUBSTATION



Description:

CIT has purchased a range of pitch maintenance machinery items to facilitate an in-house capacity to properly maintain and enhance the playing pitches and ancillary sports assets developed in recent years. A dedicated storage building is required to store this machinery. A dedicated substation is also required to supply the pitch with flood lighting.

Project Status:

Planning permission and fire safety certificates are in place for this project. Tenders have been received and the project is due to start on site in September 2013 with an expected completion date of December 2013.

14. ACCESS SERVICES AREA UPGRADE





Description:

The project involves the refurbishment of the existing access area and the expansion into the adjacent area previously used as a hairdressing unit. The project will result in an expanded Access Service with private counselling rooms and offices.

Project Status:

The project was carried out in July and August of 2013 and all of the Access Service refurbished areas are now fully occupied and operational.



4.7 Safety & Facilities Management

During 2012/2013 work continued on developing the safety management system and raising the awareness of health and safety throughout the Institute. This year's focus was given to complying with construction regulations and ensuring that project supervisors were properly appointed for all construction projects. The introduction of a roof edge protection system and building specific roof access forms has helped improve the safety of people working at heights.

The Legionella monitoring programme and water sampling continued in 2012/2013. Legionella bacteria was found to be present in a number of locations. These areas were subsequently treated, re-tested and shown to be clear of contamination.

Safety Committees

Regular safety committee meetings took place throughout the year in Bishopstown, NMCI, CIT CCAD and CIT CSM.

Emergency Evacuation & Fire Alarm Testing

Emergency evacuation drills took place as scheduled at the Bishopstown Campus, CIT CCAD, CCAD Sullivan's Quay, NMCI, and CIT BCO during the academic year 2012/2013. All fire alarm and emergency lighting tests were completed and certified. Fire extinguisher and hose reel checks were completed as per the service agreement with all necessary replacements approved and completed. The CIT Fire Register is constantly updated to reflect these actions.

General Safety & Training

During the year, staff safety training courses were provided in the following areas: Emergency First Responders, Occupational First Aiders, Cardiac First Responders, Fire Warden Training (CIT CCAD, CIT BCO, and CIT CSM) Manual Handling, Hazard Identification and Risk Assessment, VDU and Workstation Ergonomics, Chemical Safety Awareness, Biological Agents Awareness, Laboratory Safety Awareness, Working at Height Awareness, Mobile Elevated Work Platforms, Tower Scaffold Erecting, Fork Lift Drivers Certification and Conflict Resolution and Personal Safety Awareness training.

The CIT Emergency Response Team (ERT) now consists of 20 members. This comprises of 1 Nurse, 4 Emergency Medical Technicians, 3 Emergency First Responders and 12 Occupational First Aiders. The team responded to 31 medical emergencies at the Bishopstown campus last year as well as numerous fire alarm activations. As part of their training programme, the ERT members practice their skills for one hour most Friday afternoons during the academic year.

Hazard Identification and Risk Assessments

Risk assessment training and assistance was requested from and given to the CIT CCAD, the Department of Biological Sciences, the Department of Civil, Structural and Environmental Engineering, the Buildings and Estates Office, the Centre for Craft Studies, and the NIMBUS Centre.

Health and Safety generated project

During a risk assessment of the use and internal storage of gas cylinders and the use of natural gas within the Institute, a number of serious health and safety concerns were identified in the report. Following on from this, the Institute has invested heavily in creating external gas bottle storage, piping of the gas systems into the workshops and laboratories and installing a new gas detection and alarm system. Work is continuing on this project.





5. Human Resources Report

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 2012/13, the Institute's headcount was 1,468 which equates to 963.08 Whole-Time Equivalents (WTE). The largest category of staff were the Academic Staff which accounted for 56% of the headcount, 59% of WTE.

All figures shown in this section have been taken from the Public Sector Quarterly Returns as at 31 December 2012.

Retirements

The following staff retired from service during the year:

Stephen Carroll, Assistant Staff Officer, Office of the Registrar & Vice President for Academic Affairs Eileen Clarke, Institute Nurse

Damien Courtney, Head of Faculty of Business & Humanities

Edward Egan, Pro-Rata Part-Time Assistant Lecturer, Department of Social & General Studies

Maeve Fleishmann, Library Assistant 1, CIT CSM

Ann Fleming, Library Assistant 1, CIT CSM

Mary Foran, Cleaner, Buildings & Estates

Eddie Harrington, Caretaker, CIT CCAD

Joseph M. Keane, Lecturer, Department of Management & Marketing

Dr Liam McDonnell, Head of Department of Applied Physics & Instrumentation

Gemma McSweeney, Lecturer, Department of Mathematics

Timothy O'Donovan, Higher Order Attendant, Buildings & Estates Office

Clem Patton, Higher Order Attendant, Department of Process, Energy & Transport Engineering

Gordon Petrie, Lecturer, Department of Process, Energy & Transport Engineering

David Twomey, Higher Order Attendant, Department of Chemistry

Cornelia Zanidache, Lecturer, CIT CSM

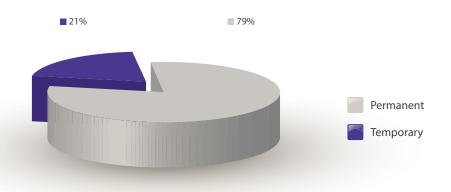
5.2 Staff Numbers

113

Total Staff Numbers

| | WTE | Headcount |
|-----------|---------------|------------|
| Permanent | 768.32 | 839 |
| Temporary | <u>194.76</u> | <u>629</u> |
| TOTAL | 963.08 | 1,468 |

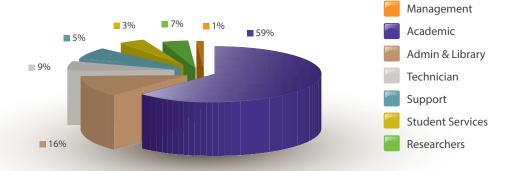
Total Staff Numbers (WTE)



Staff by Category

| | WTE | Headcount |
|------------------|--------|-----------|
| Management | 10.00 | 10 |
| Academic | 571.19 | 815 |
| Admin & Library | 150.10 | 175 |
| Technician | 84.62 | 86 |
| Support | 50.85 | 92 |
| Student Services | 31.68 | 204 |
| Researchers | 64.64 | <u>86</u> |
| TOTAL | 963.08 | 1,468 |

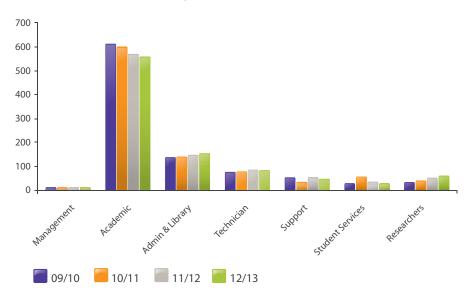
Staff by Category (WTE)



Staff Trends – 4 Year History

| | 09/10 | 10/11 | 11/12 | 12/13 |
|--------------------------|--------------|-------------|--------------|--------------|
| Management | 10.00 | 10.00 | 10.00 | 10.00 |
| Academic | 608.34 | 600.08 | 580.8 | 571.19 |
| Administration & Library | 136.08 | 138.46 | 145.56 | 150.10 |
| Technician | 77.87 | 80.73 | 84.75 | 84.62 |
| Support | 56.22 | 32.39 | 53.89 | 50.85 |
| Student Services | 29.71 | 57.77 | 34.80 | 31.68 |
| Researchers | <u>36.85</u> | <u>41.2</u> | <u>52.49</u> | <u>64.64</u> |
| TOTAL | 955.07 | 960.63 | 962.29 | 963.08 |

Staff Trends - 4 Year History (WTE)



5.3 Staff Achievements



Congratulations were extended to the following:

- CIT Students' Union was awarded "Road Safety Authority (RSA) Leading Lights in Road Safety Award 2012" in the third-level education category for their excellent work to help save lives and prevent serious injuries on our roads.
- The Institute's TEDx Team coordinated by Catherine Murphy and team support from Anne Crowley, Caroline O'Reilly, Colette Murphy, Colm Barry-Murphy, Denise McSweeney, Ruth O'Donnell and Ruth Vance who hosted the first TEDxCIT event in September.
- Dr Declan O'Connor, Lecturer, Department of Mathematics, who, in association with Teagasc and the Irish Cooperative
 Organisation Society (ICOS), organised a one-day conference "Managing Price Volatility in the Irish Dairy Sector". This
 conference was hosted by CIT on 4 September, and was opened by the Minister for Agriculture, Food & the Marine, Mr
 Simon Coveney TD. The keynote speaker was Professor Andrew Novakovic, Professor of Agricultural Economics, Cornell
 University, USA.
- Academic and technical staff were involved in the first year of the delivery of the Professional Diploma in Mathematics for Teaching. CIT is one of nine local lecture centres involved in the delivery of this new programme, jointly accredited by UL and NUIG, and intended to upskill "out of field" post-primary Mathematics teachers. Members of the CIT team were:
 - Dr Michael Brennan
 - · Dr Seán Lacey
 - Dr Violeta Morari
 - Mr Ciarán Ó Conaill
 - Mr Conchubhar Ó Luasa
 - Dr Shane O'Rourke
 - Ms Chris O'Sullivan
 - Mr Barry Woods
- Mary McCarthy, Lecturer, Department of Tourism & Hospitality Studies who was invited to be an adjudicator in Blas na hÉireann Awards 2012.
- Dr Ambrose Furey, Lecturer, Department of Chemistry who was a Scientific Reviewer for the Journal Analytical Chemistry, Journal of Chromatography A, Analytical and Bio Analytical Chemistry, Food Additives and Contaminants, Toxicon, Talanta, Chromatographia, Journal of Separation Science, Rapid Communication in Mass Spectrometry and Analytica Chimica Acta.
- James Hayes, Lecturer, CIT Crawford College of Art & Design who exhibited his work at The IRON-R Exhibition in the National Sculpture Factory. Some of the art created at IRON-R was exhibited in the Royal Hibernian Academy. James was also awarded the Arts Council Travel Award for 2012 and the Per Cent for Art Commission for 2013 by Mayo County Council.
- Tony McClure, Lecturer, CIT CCAD who was appointed to the Board of Cork Printmakers.
- Deirdre Goggin, CIT Extended Campus, who was appointed as the Quality and Qualifications Ireland representative on the European Recognition of Prior Learning Network.
- Dr Mary Lehane, Lecturer, Department of Chemistry who was a Scientific Reviewer for the journals; Analytical and Bioanalytical Chemistry, Food Additives and Contaminants, Toxicon and Chromatographia.
- Dr Shane O'Rourke, Lecturer, Department of Mathematics, whose paper `A tree-free group that is not orderable' was accepted for publication by the Proceedings of The American Mathematical Society.
- Dr Julie O'Donovan, Lecturer, Department of Mathematics, invited speaker at the 2012 annual meeting of the Irish Mathematical Society, held in Institute of Technology, Tallaght. Julie's presentation was entitled "Mathematical Enrichment Programme Maths Circles".
- Dr Julie O'Donovan, Lecturer, Department of Mathematics, invited speaker at the 2012 conference of Irish Maths Learning Support Network, held in Queens University Belfast. Julie's presentation was entitled "Student Engagement with Mathematics Support at Cork Institute of Technology".
- Dr Gabriela Mayer, Head of Department of Keyboard Studies, CIT CSM who participated in a Music and Performing Arts workshop at the Sibelius Academy in Helsinki.
- Caroline O'Reilly, Head of Department of Accounting & Information Systems who represents the Institute on the ACE Working Group 'Train the Trainers' which is focused on developing a HEI Enterprise Educators programme.



- Dr Breda Kenny, Head of Hincks Centre for Entrepreneurship Excellence who represented the Institute on the ACE Working Group 2 'Awareness and Dissemination/Leadership and Policy' which is focused on informing national policy around entrepreneurship education and appropriate dissemination of educational resources. Dr Kenny was also appointed as Ireland Vice President, European Council for Small Business and Entrepreneurship in September 2012.
- Gerard O'Donovan, Head of School of Business who was successful in securing funding for an Erasmus Intensive Programme 'European Creative Futures' which will be funded for three years to allow students and staff travel and study with European partners. Gerard was also appointed to the Cork Innovates Education Committee.
- Gwen Lettis, Lecturer, Department of Media Communications and Marc O'Riain Assistant Lecturer, Department of Architecture, who jointly organised the 2012 National Institute of Designers in Ireland Graduate Design Awards Exhibition hosted by the Institute from 5 to 9 November.
- Dr Declan O'Connor, Lecturer, Department of Mathematics, who was invited to present a one day workshop to the Irish Dairy Industries Association (IDIA) on dairy price volatility in January.
- CIT Students' Union and all involved in raising almost €6,500 for a number of worthwhile charities during CIT RAG Week 2013. The success of RAG Week can only be attributed to the collaborative spirit in which it is organised within the Institute, well done to all involved.
- Dr Felix Raekson, Lecturer, Department of Continuing Education who was appointed to the reviewing panel of Sage Publications.
- Staff in the Department of Social & General Studies who in conjunction with Cork Sports Partnership developed a Sports Ability Programme. The programme was delivered as part of an Adapted Physical Activity to students from the Recreation & Leisure and Social Care programmes. It involved students planning and implementing physical and sporting activities for individuals with intellectual and physical disability.
- Muireann O'Neill, Pro-Rata Part-Time Assistant Lecturer, Department of Continuing Education who was appointed as a board member of the Irish Auditing & Accounting Supervisory Authority.
- Martin Connolly, Pro-Rata Part-Time Assistant Lecturer, Department of Accounting & Information Systems who was appointed as an Evaluator and Rapporteur for two panels in the EU FP7 funding process the SME (IT/Electronics stream) and Information Security panels.
- Don Crowley, Head of Department of Continuing Education who was reappointed to the Board of IRD Duhallow Ltd.
- Dr John Hobbs, Assistant Lecturer, Department of Management & Marketing who was appointed the Institute's Coordinator for the Be Wiser Project.
- Catherine Murphy, Pro-Rata Part-Time Assistant Lecturer, Department of Accounting & Information Systems who was appointed as an external judge for the National Social Media Awards.
- Dr Helen O'Shea, Lecturer, Department of Biological Sciences who was invited to become a Grant Evaluator for the Latvian Council of Science.
- Staff and students in the Department of Tourism & Hospitality Studies who raised over €10,000 for various charities by hosting a series of cookery demonstrations during the year.
- Ann O'Connor, Lecturer and Breda Hickey, Lecturer, Department of Tourism & Hospitality Studies who were invited to be adjudicators at the European Association of Hotel and Tourism Schools Annual Conference.
- Dr Áine de Roiste, Lecturer, Department of Social & General Studies who was appointed to the editorial board of the Irish Journal of Applied Social Studies and the European Journal of Social Education. She acts as an evaluator for the Research Directorate-General of the European commission on research and ethical review panels and also evaluates the Marie Curie Intra-European Fellowships. She is also a member of the secretariat of FESET (Formation d'Educateurs Socaiux Européens/European Social Educator Training).
- Dr Judith Butler, Assistant Lecturer, Department of Social & General Studies who was appointed to the editorial board of The Adult Learner Journal.
- Marc O'Riain, Assistant Lecturer, Department of Architecture who was the winner of the Design Sustainability Award with
 the Zero2020 Energy Retrofit Design Team at the Institute of Designers in Ireland (IDI) 2012 Awards. He received "highly
 commended" under the Commercial Interiors National Award competition at the same event. Marc was also elected as
 Education representative to the Council of the Institute of Designers in Ireland.
- Patrick Kennedy, Lecturer and Noel Duffy, Senior Lecturer, Department of Process, Energy & Transport Engineering
 who partnered with Pfizer Ireland Pharmaceuticals, Little Island to develop a module on chemical process safety to
 complement the normal operating practices on site at the Pfizer Plant, Little Island.

- John J Murphy, Senior Lecturer, Department of Civil, Structural & Environmental Engineering who was reappointed to the Membership and Qualifications Board of Engineers Ireland.
- Dr Angela Wright, Pro-Rata Part-Time Lecturer, Department of Organisation & Professional Development, whose book *Ireland and the American Tourist: An Emotional, Connectional Motivational Context*, Berlin: VDM Verlag, was published.
- Sarah Foster, Lecturer, CIT CCAD who was invited to write a lead article for the "Irish Architectural and Decorative Studies" Volume XV, January 2013: "Ornament and splendor": shops and shopping in Georgian Dublin. Sarah was also invited to act as peer reviewer for two scholarly journals with global circulation:
 - Journal of Historical Research in Marketing, Connecticut, USA
 - Costume: The Journal of the Costume Society, Oxford, England
- Staff members from DEIS who were successful in achieving funding for a number of EU funded projects which included the following:
 - RIPLECS Remote-labs access in Internet-based Performance-centred Learning Environment for Curriculum Support
 - SEGAN Serious Games Network
 - CULTOOLS Intercultural Competences for personal and professional life
 - SME2.0
 - SIMS
 - Serious Sports
 - Med-Access
 - RED INK
- Trish Brennan, Acting Head of the Department of Fine Art & Design, CIT CCAD who delivered an illustrated talk on
 "Reading the Photographic Image" and contributed to panel discussions as part of the Developing Pictures: Symposium
 on Photography at UCC's Glucksman Gallery in February.
- Lucy Dawe-Lane, Lecturer, CIT CCAD whose review of the international exhibition "Mel Bochner: If the Colour Changes",
 Whitechapel Gallery, London was published in the Spring Edition of the Enclave Review.
- · Margaret O'Brien, Assistant Lecturer, CIT CCAD who received the following awards during the academic year:
 - The Red Stables Studio Award, Dublin City Council
 - Glin-Crookshank Prize, Trinity College Dublin
 - Travel & Training Award, Arts Council of Ireland
 - Development Fund Award, National College of Art & Design

Margaret has also been appointed to the Board of Gallery Committee, National College of Art & Design and the Board of Directors of Black Church Print Studio.

- Dr Irene Sheridan, Head of CIT Extended Campus who was the invited Chair of a session at the University Industry Interaction Conference in Amsterdam in May.
- Dr Declan O'Connor, Lecturer, Department of Mathematics, invited speaker and panelist at the 20th Annual National Workshop for Dairy Economists and Policy Analysts in Boston in May.
- Dr Guillaume Huyet, Senior Lecturer and Head of the CAPPA Centre who was reappointed to the position of Associate Editor for the Optics Express journal for a further 3 years.
- Dr Joe Harrington, Head of School of Building & Civil Engineering who was reappointed as a member of the Environmental Protection Agency National Dumping at Sea Advisory Committee. Dr Harrington was also awarded the Hromadka Medal for an outstanding contribution to water resources research for his paper "Sediment and nutrient behaviour on the River Bandon, Ireland" presented at the River Basin Management Conference 2013.
- CIT Extended Campus and the REAP project who were invited to collaborate on the development of a University Business Eco-system Model and reports looking at the University-Business Collaboration (UBC) situation in a number of European countries. The research was undertaken as part of the largest study into cooperation between European HEIs and business conducted for the DG Education and Culture at the European Commission.
- Dr Eamonn Cashell, Head of School of Graduate Studies who was an invited speaker at the Graduate School, University of Applied Sciences – Darmstadt, Germany.
- The NIMBUS Centre who won the Public Sector Magazine "Award of Excellence" 2013 for the Water Systems and Services Innovation Centre (WSSIC).
- Richard Linger, Manager, TEC Centre and the team at the NIMBUS Centre who were awarded over €500,000 in Commercialisation fund projects, Technology Gateway El funding for 5 years.



- Dr Dirk Pesch, Head, NIMBUS Centre who was awarded funding for the following projects:
 - GENIC Project
 - SCUBA project
 - EU FP7 Project Energy in Time, TRIBUTE
 - IERC Projects AUTHENTIC, ROWBUST
 - EU NPP SMACS Project in collaboration with the NMCI

The NIMBUS Centre also won in excess of €2.3m EU funding during the academic year.

- The programme team for the new Higher Diploma in Science in Data Science & Analytics, whose successful application
 for funding under the HEA's ICTSkills 2013 led to the commencement of the Institute's first programme in the increasingly
 important area of Big Data. The Department of Mathematics led the development and delivery of the programme, in
 collaboration with the Department of Computing and CIT Extended Campus. Members of the programme development
 team were:
 - · Mr Larkin Cunningham
 - · Mr Aengus Daly
 - Mr Tim Horgan
 - Dr Seán Lacey
 - · Dr Hugh McGlynn
 - Dr Áine Ní Shé
 - Dr Katie O'Brien
 - Dr Declan O'Connor
 - Ms Aisling O'Driscoll
 - Mr Jim O'Dwyer
 - Ms Linda O'Sullivan
 - · Ms Catherine Palmer
 - Dr Ted Scully
 - Dr Paul Walsh
- Dr Liam Lewis and other CAPPA staff who were featured on the Euronews television channel for their work on the *Aqua-Pulse* EU FP7 Research for SMEs project.
- Dr David Williams, Dr Guillaume Huyet and Catherine Dawson, CAPPA Centre who organised the two-week International Nano-Optoelectronics Workshop (iNOW 2013) as part of the EU FP7 Marie Curie Initial Training Network PROPHET, which CAPPA is coordinating.
- Dr Eamonn O'Neill and Dr Guillaume Huyet, CAPPA Centre who successfully achieved funding of €1.089m under the
 Enterprise Ireland Technology Gateway programme, for the CAPPA Technology Gateway, which will run from January
 2013 to December 2017.
- Dr Guillaume Huyet, CAPPA Centre, who was the CIT Principal Investigator in the successful SFI Research Centres proposal Irish Photonic Integration Research Centre (I-PIC).
- Dr Bryan Kelleher and Dr Guillaume Huyet, CAPPA Centre who were awarded €257k for the SFI US-Ireland project, Femtojoule-per-bit Communications with Nanopillar Lasers on Si. The project is a collaboration with researchers in University of California Los Angeles and Queens University, Belfast.
- Dr Eamonn O'Neill, and Dr Milosz Przyjalgowski, CAPPA Centre who secured €117k funding for an Enterprise Ireland Innovation Partnership with ProPhotonix. This is CAPPA's 8th Innovation Partnership since 2008. Eamonn also secured funding for two other projects with the Pharmaceutical Manufacturing Technology Centre and in collaboration with the Department of Process, Energy & Transport Engineering.
- · Dr Brendan J. Murphy, President, CIT who was awarded a Fellow of the Irish Academy of Engineering on 2 May.
- Dr Shane O'Rourke, Lecturer, Department of Mathematics, who was a plenary speaker at the seventh annual Geometric and Asymptotic Group Theory with Applications conference in City College, New York, 28-31 May.
- Roseanne Lynch, Pro-Rata Part-Time Assistant Lecturer, CIT CCAD whose work featured in New Irish Works from 4 to 27
 July.
- Staff who were appointed as External Examiners included:
 - John Bogue, IrelandSkills Competition
 - JJ Buttimer, IrelandSkills Competition
 - Dr Aidan Coffey, Leuven University, Belgium
 - Dr Joe Connell, Napier University, Edinburgh
 - · Fergus Delaney, Dublin Institute of Technology

- Dr Áine de Róiste, University of Wales Institute of Cardiff (UWIC) and the Institute of Integrative Counselling and Psychotherapy
- Eamonn Finnegan, IrelandSkills Competition
- Dr Ambrose Furey, Dublin City University, Dublin Institute of Technology and University of Pune, India
- Michael Hourihan, Chief Examiner, IrelandSkills Competition
- Dr Lorraine Howard, Institute of Technology Tralee
- William Irwin, IrelandSkills Competition
- Seán Lannin, IrelandSkills Competition
- Pat Mahon, IrelandSkills Competition
- Adrian McAuliffe, IrelandSkills Competition
- Dr Hugh McGlynn, Waterford Institute of Technology
- Niall Morris, Chief Examiner, IrelandSkills Competition
- Bernard O'Callaghan, Institute of Technology Tallaght
- Tim O'Halloran, Chief Examiner, IrelandSkills Competition
- Michael O'Leary, IrelandSkills Competition
- Michael P. O'Mahony, Galway/Mayo Institute of Technology
- Tom O'Reilly, IrelandSkills Competition
- David O'Riordan, Chief Examiner, IrelandSkills Competition
- Patrick O'Riordan, IrelandSkills Competition
- Pat Twomey, Chief Examiner, IrelandSkills Competition
- Staff at the CIT Crawford College of Art & Design whose work featured in recent exhibitions, workshops and residencies at National and International level:
 - Lucy Dawe-Lane
 - Debbie Dawson
 - Pamela Hardesty
 - · James L. Hayes
 - Jesse Jones
 - · Catherine Hehir
 - Roseanne Lynch
 - Tony McClure
 - Dr Ailbhe Ní Bhriaín
 - Margaret O'Brien
 - Maureen O'Connor
- Staff Members who were conferred included:
 - Emma Callanan, Master of Science in Cloud Computing
 - Des Carroll, Master of Arts in Public Relations with New Media
 - · Michael Coughlan, Bachelor of Engineering (Honours) in Building Energy Systems
 - · John Cronin, Bachelor of Business in Business & Management
 - Mary Daly, Master of Arts in Music
 - Stefan De La Cour, Bachelor of Engineering in Mechanical Engineering
 - Michelle Kelleher, Higher Certificate in Business
 - Peter Lucey, Master of Arts in Public Relations with New Media
 - Mary MacSweeney, Master of Arts in Music
 - · Catherine Murphy, Professional Diploma in Digital Marketing
 - Robert O'Brien, Master of Arts in Music
 - Anna O'Donovan, Doctor of Philosophy in Enterprise Content Management
 - Andrea O'Driscoll, Higher Certificate in Business
 - Dr Margaret O'Keeffe, LLM
 - Coral O'Sullivan, Master of Arts
 - Gearóid Ó Súilleabháin, Doctor of Philosophy in Educational Research
 - Phil O'Leary, Master of Arts
 - Philip O'Reilly, Bachelor of Science in Information Technology Support
 - Dr Susan Rea, Diploma in Project Management
 - Sinéad Rodgers, Project Management Professional (PMP)
 - Barry Woods, Higher Certificate in Science in Information Technology Support



New Appointments

The following staff were confirmed for appointment during the academic year 2012/13:

- · Mark Burleigh, Assistive Technology Officer
- Aisling Conway, Assistant Lecturer, Department of Management & Marketing
- Annette Coughlan, Maritime Liaison Officer, NMCI Services, NMCI
- Denis Cronin, Staff Officer, Finance Office
- Don Crowley, Head of Department of Organisation & Professional Development
- Catherine Cunningham, Senior Staff Officer, Finance Office
- Larkin Cunningham, Assistant Lecturer, Department of Computing
- Dr Pio Fenton, Head of Department of Marketing & International Business
- Kieran Hallahan, Staff Officer, Finance Office
- Mary Hegarty, Pro-Rata Part-Time Assistant Lecturer, CIT CSM
- · Tim Horgan, Head of Online Delivery
- Carmel Kelleher, Senior Staff Officer, Finance Office
- Dr Gerard Kelly, Acting Head of Department of Mechanical, Biomedical & Manufacturing Engineering
- Dr Breda Kenny, Head of Hincks Centre for Entrepreneurship Excellence
- David Kingston, Caretaker, Buildings & Estates
- Niamh Lynes, International Office Coordinator
- · Jonathan McCarthy, IT Manager
- · Cliona Maher, International Student Officer
- Patrick McCarthy, Assistant Lecturer, Department of Computing
- Seán McShera, Assistant Lecturer, Department of Electrical & Electronic Engineering
- Michael Murphy, Assistant Lecturer, Department of Process, Energy & Transport Engineering
- · Ruth Murphy, Disability Facilitation Administrator
- Paul Nash, Lecturer, NMCI
- Deborah Ní Riain, Assistant Lecturer, Department of Architecture
- Gillian O'Callaghan, Admissions, Examinations & Fees Officer, Office of the Registrar & Vice President for Academic Affairs
- Clare O'Leary, Senior Staff Officer, Finance Office
- David O'Leary, Clerical Officer, NIMBUS Centre
- Mai O'Leary, Sports Officer
- Dr Donna O'Shea, Assistant Lecturer, Department of Computing
- Ellen O'Shea, Clerical Officer, Student Services
- Rene Peeren, Energy Research Coordinator, School of Mechanical, Electrical & Process Engineering
- Marian Quinn, Assistant Lecturer, Department of Social & General Studies
- Tadhg Ryan, Pro-Rata Part-Time Assistant Lecturer, Department of Social & General Studies
- Dr Ted Scully, Assistant Lecturer, Department of Computing

6. Finance Report

Cork Institute of Technology

6.1 Financial Report

6.2 Audited Accounts 2012/2013



6.1 Financial Report

This financial report covers the period from 1 September 2012 to 31 August 2013 and reflects a more challenging financial environment, with income falling by 3.4% to €95.7m and operating cost falling by 1.3% to €94.2m. The operating surplus for the year fell by 60% from €3.6m to €1.4m.

The CIT Student Services Company Limited which provides mini-market, shop, bistro and canteen services to the students of the Institute is consolidated in the financial statements for the first time. Previously its results were disclosed in the accompanying notes to the financial statements and 2011/12 figures are restated to reflect this change. The accounts of CIT Foundation Ltd are also consolidated into these accounts.

Income

Income decreased by 3.4% from €99.1m to €95.7m during the period. Income fell across all categories with the exception of Tuition Fees which rose due to the increase in the Student Contribution. This was, however, more than offset by the reduction in State Grant. Research & Contracts recurrent income fell by €2m and Other Income fell by €0.9m.

Current Expenditure

The Institute's total current expenditure fell by 1.3% to €94m. Exclusive of depreciation of €6.3m, the direct costs of academic departments and research activity was €63.7m (72%), premises costs were €5.8m (7%) and administrative and support services cost €12.4m (14%) with student services costing €6.1m (7%).

Staffing Costs

The Institute's pay bill increased by €0.5m during 2012/13 and now stands at €63.4m compared with €62.9m in 2012. Staff costs account for 67% of all expenditure and the average number of employees rose during the period by 3.2% from 1,126 to 1,162.

Student Numbers

The number of whole-time equivalent students increased marginally by 0.9% from 8,793 to 8,871 during the period.

Research & Development

Income from Research, Development and Self-Funding Activities inclusive of capital funding remained relatively static at \in 15.6m. The transfer to the capital account increased to \in 2.9m which relates to building projects and research equipment funding won by the Institute. The recurrent income in this area fell from \in 14.7m to \in 12.8m and the operating cost fell in line with this from \in 14.3m to \in 12.7m.

Reserves

For the year ending 31 August 2013, the Institute's Reserves (excluding Deferred Capital Grants) stood at €8m, of which €6.85m is accounted for by the Capital Development Reserve for approved capital projects. Of the remaining €1.15m, €0.82m relates to consolidated companies with €0.33m relating directly to the Institute.

6.2 Audited Accounts 2012/13



Statement on Internal Control

Statement of Institute Responsibilities

Comptroller and Auditor General – Report for presentation to the Houses of the Oireachtas

Statement of Accounting Policies

Consolidated Income and Expenditure Account

Consolidated and Institute Balance Sheets

Consolidated Cash Flow Statement

Notes to the Financial Statements



6.2.1 Statement 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.

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.

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 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.

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.

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.

We confirm that per Section 5.2.1 of the terms of reference of the Audit Committee, as approved by the Governing Body, the review of internal controls is carried out by the Audit Committee. As such the Audit Committee reviewed the reports on Internal Controls and Internal Financial Controls for the year ended 31 August 2013 at their meeting on 20th June 2013 and approved by the Governing Body in July 2013.

Signed on behalf of the Governing Body

Bob Savage Chairman Dr Brendan J. Murphy

brandon S. Wurgh

125

6.2.2 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 proper books of account 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.

Bob Savage Chairman

Dr Brendan J. Murphy President

brendan J. Wurgh



6.2.3 Comptroller and Auditor General Report for presentation to the Houses of the Oireachtas

Cork Institute of Technology

I have audited the consolidated financial statements of Cork Institute of Technology (the financial statements) for the year ended 31 August 2013 under the Institutes of Technology Acts 1992 to 2006. The financial statements, which have been prepared under the accounting policies set out therein, comprise the statement of accounting policies, the consolidated income and expenditure account, the consolidated and Institute balance sheets, the consolidated cash flow statement and the related notes. The financial reporting framework that has been applied in their preparation is the Institutes of Technology Acts 1992 to 2006 and generally accepted accounting practice in Ireland.

Responsibilities of the Institute

The Institute is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of the Group's and Institute's affairs and of the Group's income and expenditure, and for ensuring the regularity of transactions.

Responsibilities of the Comptroller and Auditor General

My responsibility is to audit the financial statements and report on them in accordance with the Institutes of Technology Acts 1992 to 2006.

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.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements, sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of

- whether the accounting policies are appropriate to the Institute's circumstances, and have been consistently applied and adequately disclosed
- the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- the overall presentation of the financial statements.

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

Opinion on the financial statements

In my opinion, the financial statements, which have been properly prepared in accordance with generally accepted accounting practice in Ireland, give a true and fair view of the state of the Group's and Institute's affairs at 31 August 2013 and of the Group's income and expenditure for the year then ended

In my opinion, proper books of account have been kept by the Institute. The financial statements are in agreement with the books of account.

Matters on which I report by exception

I report by exception if

- I have not received all the information and explanations I required for my audit, or
- my audit noted any material instance where public money have not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the statement on internal control does not reflect the Institute's compliance with the Code of Governance of Irish Institutes of Technology, or
- I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters.

Seamus McCarthy

Comptroller and Auditor General

27 June 2014

127

6.2.4 Statement of Accounting Policies for the year ended 31 August 2013

The significant accounting policies applied by Cork Institute of Technology are as follows:

1. Basis of Preparation

The financial statements are prepared in accordance with generally accepted accounting principles in Ireland and the United Kingdom under the historical cost convention (except for certain assets which are included at valuation) and with the requirements of the Higher Education Authority. CIT Innovation Centre Limited, Cosmos Education Limited, CIT Foundation Limited and CIT Student Services Company Limited are included in the Consolidated Financial Statements.

2. Recognition of Income

State Grants:

Recurrent 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 depreciation over the life of the assets.

Minor Capital Works:

The Minister for Education and Skills introduced a scheme to devolve responsibility to the Institute for Summer and other Capital Works. Where minor capital works monies, in respect of this scheme, have not been expended they are treated as deferred income, provided the projects to which they are committed have been approved by the Governing Body, are fully defined, time phased and with estimates of costs.

In all other cases minor capital works funding is recognised in the period received.

Research Grants and Contracts:

Income from 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.

All research income and expenditure is shown under the headings 'Research Grants and Contracts.'

Fee Income:

Fee Income is accounted for on an accruals basis.

Interest Income:

All income from short term deposits is credited to the income and expenditure account in the period in which it is earned.

3. Stocks

Expenditure on books and consumable stocks is charged to the Income and Expenditure account as incurred. Stock shown in the balance sheet relates to merchandise in Cosmos Education Limited and consumable stock in the Student Services Company Limited at 31 August 2013.

4. Fixed Assets and Depreciation

Fixed assets, with the exception of land, are stated at historical cost or valuation less accumulated depreciation. Land is stated at historical cost or valuation.

(a) Cost or Valuation

Fixed assets in existence on 1 January 1993 (date of commencement order) are stated at valuation. The basis of valuation of land and buildings is set out at Note 14. Subsequent additions are stated at cost.

Buildings under construction are accounted for at cost based on the value of the architect's certificates and other direct costs incurred to the financial year end. They are not depreciated until they are brought into use.

(b) Equipment

All equipment valued at €3,000 and over is capitalised.

(c) Depreciation

All assets purchased before 1 September 2009 and capitalised will continue to be treated as fixed assets and depreciated to the end of their useful life.



Depreciation is provided on fixed assets, excluding land on a straight line basis so as to write off their historical costs or valuations over their estimated useful lives as follows:

| | Years |
|--|-------|
| Buildings | 30-50 |
| Prefabricated buildings, fixtures, plant and machinery | 10 |
| Mainframe Computers | 7 |
| Other computer equipment | 3 |
| Educational and administrative equipment | 5 |
| Furniture | 5 |
| Motor Vehicles | 5 |

Computer Equipment purchased before 1 September 2010 will continue to be depreciated on the basis of a four year life straight line depreciation policy. Computer equipment purchased after that date will be depreciated on a three year life straight line basis.

All equipment funded from Research Grants and Contracts is depreciated over the life of the asset in line with the policy for all other Fixed Assets.

Leased Land and Buildings are depreciated over the life of the lease.

Assets in the Student Services Company Limited are depreciated over 2-5 years – straight line.

5. Foreign Currencies

Transactions denominated in foreign currencies are translated into Euro and recorded at the rates of exchange ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into Euro at the rates of exchange ruling at the Balance Sheet date.

6. Pensions

All pension entitlements of staff are conferred under a defined benefits scheme established under the Local Government (Superannuation) Act, 1980 and pension obligations are met by the Exchequer as they arise.

The superannuation scheme is operated on a Pay As You Go basis and therefore superannuation deductions made from the employees are retained by the Institute, as an agreed part of its funding.

The Institute does not make contributions towards the scheme and has no obligation in respect of entitlements.

7. Deferred Capital Grants

 $Deferred\ Capital\ Grants\ represent\ the\ amortised\ value\ of\ accumulated\ funds\ allocated\ for\ fixed\ assets.$

8. 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, time phased and with estimates of costs.

9. Capital Reserve - Student Services Company Limited

The transfer to the Capital Reserve relates to the receipt of funds from the closure of Trusts. The Capital Reserve is designated for future capital development to benefit student welfare.

10. Leased Assets

Rentals under operating leases are charged to the Income and Expenditure account in the period in which the expenditure is incurred.

129

6.2.5 Consolidated Income and Expenditure Account for year ended 31 August 2013

| INCOME | NOTE | 2013 €000 | 2012 €000 |
|---|--|---|---|
| State Grant Tuition Fees Amortisation of Deferred Capital Grants Research Grants and Contracts Other Income Student Support Funding Income recognised Interest Income | 1 2 17 3 5 4 | 39,093 29,146 6,303 12,775 7,341 552 477 95,687 | 39,900 28,489 6,302 14,736 8,276 530 867 99,100 |
| EXPENDITURE | | | |
| Academic Departments Academic Services Facilities Costs Central Administration and Services General Educational Expenses Student Services Research Grants and Contracts Student Support Funding Income applied Depreciation | 6 7 8 9 10 11 3 4 14 | 51,073 2,740 5,756 8,911 715 5,535 12,661 552 6,298 94,241 | 50,157 2,570 7,543 8,228 597 5,286 14,338 530 6,296 95,545 |
| Operating Surplus | | 1,446 | 3,555 |
| Taxation Transfer to Capital Development Reserve Transfer from Capital Development Reserve | 13 18 18 | (3) (1,737) 37 | (6) (3,491) 105 |
| Accumulated Surplus at 1st September Accumulated Surplus at 31st August | | 1,089 832 | <u>926</u> 1,089 |

There are no recognised gains or losses other than those dealt with in the Income and Expenditure Account.

The Statement of Accounting Policies, Cash Flow Statement and Notes 1-27 form part of the financial statements.

Signed on behalf of the Governing Body

Bob Savage Chairman

Ald In

Dr Brendan J. Murphy President

brandom S. Wheely



6.2.6 Consolidated and Institute Balance Sheets as at 31 August 2013

| | | Cons | Consolidated | | stitute |
|---|----------|--|--|---|--|
| | NOTE | 2013 €000 | 2012 €000 | 2013 €000 | 2012 €000 |
| FIXED ASSETS INVESTMENTS | 14 23 | 111,852 50 111,902 | 109,569 50 109,619 | 111,260 50 111,310 | 109,204 50 109,254 |
| CURRENT ASSETS | | | | | |
| Debtors & Prepayments Stock Cash at bank and in hand | 15 | 20,210 83 18,637 38,930 | 6,016 63 21,434 27,513 | 19,985 17,522 ——————————————————————————————————— | 5,869 - 20,191 - 26,060 |
| CURRENT LIABILITIES | | | | | |
| Creditors and Accrued Expenses - amounts falling due within one year | 16 | 30,982 | 19,236 | 30,379 | 18,708 |
| NET CURRENT ASSETS | | 7,948 | 8,277 | <u>7,128</u> | <u>7,352</u> |
| NET ASSETS | | 119,850 | 117,896 | 118,438 | 116,606 |
| Represented by Deferred Capital Grants Income and Expenditure Account Capital Reserve – Student Services Co Ltd Capital Development Reserve | 17 18 | 111,852 832 321 <u>6,845</u> 119,850 | 109,569 1,089 321 | 111,260 333 - 6,845 118,438 | 109,204 485 - <u>6,917</u> 116,606 |

The Statement of Accounting Policies, Cash Flow Statement and Notes 1-27 form part of the financial statements.

Signed on behalf of the Governing Body

Alt In

Bob Savage Chairman brandom S. Wheely

Dr Brendan J. Murphy President

6.2.7 Consolidated Cashflow Statement for the year ended 31 August 2013

131

| | 2013 €000 | 2012 €000 |
|---|---|---|
| Reconciliation of operating surplus to net cash inflow from operating activities | | |
| Operating Surplus Interest Income Depreciation Amortisation in line with asset depreciation Loss on Disposal of Fixed Assets Taxation Increase in Stock Reversal of non-cash transfer to student services reserve Movement in Revenue Reserve relating to Subsidiaries first consolidated in 2012 (Increase)/Decrease in Debtors Increase /(Decrease) in short term Creditors Net Cash (outflow)/Inflow from Operating Activities | 1,446 (477) 6,298 (6,303) 5 (3) (20) - (14,194) | 3,555 (867) 6,296 (6,302) 6 (6) (59) 321 720 313 (331) 3,646 |
| Cashflow Statement | | |
| Net Cash Inflow from Operating Activities | (1,502) | 3,646 |
| Interest Received | 477 | 867 |
| Capital Expenditure Payments to acquire Fixed Assets Net Cash Outflow for capital expenditure Financing State Capital Grants spent on Fixed Assets State Recurrent Grants spent on Fixed Assets Other funds spent on Fixed Assets Net Cash Inflow from Financing (Decrease)/Increase in Cash | | (7,985) (7,985) 2,987 2,753 1,086 6,826 3,354 |
| Reconciliation of net cash flow to movement in net funds | | |
| (Decrease)/Increase in Cash Net opening funds Net Funds at 31 August | (2,797) _21,434 _18,637 | 3,354 |

The Statement of Accounting Policies, Cash Flow Statement and Notes 1-27 form part of the financial statements.

Signed on behalf of the Governing Body

Bob Savage Chairman brandom S. Wheely

Dr Brendan J. Murphy President



6.2.8 Notes to the Financial Statements

1. STATE GRANTS

| I. STATE GRANTS | Allocated for recurrent expenditure | Allocated for capital expenditure | Total 2013 | Total 2012 |
|---|-------------------------------------|-----------------------------------|---------------|---------------|
| | €000 | €000 | €000 | €000 |
| State grant for recurrent expenditure – F | EA 39,037 | 2,422 | 41,459 | 41,846 |
| State grant for capital expenditure - DOE | 45 | 132 | 177 | 2,278 |
| State grant for minor capital works - DOE | S 11 | 1,383 | 1,394 | 1,516 |
| Total - 2013 | 39,093 | 3,937 | 43,030 | 45,640 |
| Total - 2012 | 39,900 | 5,740 | 45,640 | |

The total cost of certain Higher Certificate and Ordinary Degree courses is subvented by the European Social Fund (ESF) at national level. State Grants for Recurrent Expenditure are partly funded from this EU assistance.

2. TUITION FEES

| | 2013 | 2013 | 2012 | 2012 |
|--|---------------------|--------|---------------------|--------|
| | Student No (WTE) | €000 | Student No (WTE) | €000 |
| Fees Paid by State | 6,258 | 7,689 | 6,146 | 8,993 |
| Non-EU Fees | 146 | 428 | 114 | 601 |
| Fees paid by students or on behalf of students | 838 | 1,475 | 1,074 | 2,030 |
| Life Long Learning and Other Fees | 1,629 | 5,114 | 1,459 | 4,154 |
| Student Contribution | | 14,440 | | 12,711 |
| | 8,871 | 29,146 | 8,793 | 28,489 |

The HEA paid tuition fees in the year of €5.679m for full time degree courses and €2.010m for higher certificate and ordinary degree courses, the total costs of which are part funded by the ESF.

Student numbers are stated as wholetime equivalents, based on enrolled credits.

3. RESEARCH GRANTS AND CONTRACTS

| | 2013 €000 | 2012 €000 |
|---------------------------------|---------------|----------------|
| Income | €000 | €000 |
| Income | 15,644 | 15,773 |
| Transfer to Capital Account | (2,869) | (1,037) |
| nansier to capital Account | 12,775 | 14,736 |
| | | <u>_11,730</u> |
| Expenditure | | |
| Staff Costs | 6,182 | 5,986 |
| | | |
| Non Pay Costs | | |
| Materials & Other Consumables | 479 | 573 |
| Computer Costs | 198 | 235 |
| General Education | 1,217 | 1,253 |
| Services to Students | 1 | 1 |
| Research Costs | - - | 112 |
| Project Partners | 966 | 2,035 |
| Equipment | 294 | 318 |
| Premises Costs | 535 | 758 |
| Travel & Subsistence | 839 | 931 |
| Personnel Costs | 231 | 190 |
| Professional Fees | 1,279 | 1,523 |
| Communications | 64 | 62 |
| Stationery & Office Materials | 247 | 226 |
| General Advertising & Publicity | 94 | 91 |
| Insurance | 2 | 3 |
| Finance Costs | 13 | 27 |
| Other | 20 | 14 |
| | <u>12,661</u> | 14,338 |
| Net Outcome | 114 | 398 |
| | <u>———</u> | |

Included in the Research Grant and Contract Income is an amount of €398,000 in respect of overhead recovery. The balance represents direct costs recovered for research work undertaken as outlined under Expenditure headings above.



| STUDENT SUPPORT FUNDING | Disabilities | Student Assistance | 2013 €000 | 2012 €000 |
|--|-----------------|-----------------------|--------------|--------------------|
| Balance at 1 September 2012 | 136 | 136 | 272 | 306 |
| Receipts Higher Education Authority Allocated to Capital | 321 - 321 | 108 - 108 | 429 | 511 (15) 496 |
| Amounts Applied – Pay & Non Pay | 341 | 211 | 552 | 530 |
| Balance at 31 August 2013 | 116 | 33 | 149 | 272 |

Funding is provided by the Higher Education Authority under the National Development Plan and is part funded by the European Social Fund.

OTHER INCOME

| Superannuation Deductions Retained | 3,562 | 3,741 |
|--------------------------------------|-------|-------|
| Rental of Facilities | 12 | 5 |
| Proceeds from Sale of Equipment | - | 22 |
| State Grant - HEA | 448 | 331 |
| CIT Student Services Company Limited | 3,257 | 3,655 |
| Sundry Income | 62 | 522 |
| | 7,341 | 8,276 |

The income from the CIT Student Services Company Limited is generated from the provision of a mini market, bistro, shop and canteen to the students of CIT.

ACADEMIC DEPARTMENTS

| Staff Costs | 45,880 | 45,481 |
|---------------|--------|--------|
| Non Pay Costs | 5,193 | 4,676 |
| Total | 51,073 | 50,157 |

| | | 2013 €000 | 2012 €000 |
|-----|--|-----------------------|------------------|
| 7. | ACADEMIC SUPPORT SERVICES | | |
| | Staff Costs Non Pay Costs Total | 1,794 946 2,740 | 1,751 819 |
| 8. | FACILITIES COSTS | | |
| | Staff Costs Non Pay Costs | 1,460 4,296 | 1,562 5,981 |
| | Total | 5,756 | 7,543 |
| 9. | CENTRAL ADMINISTRATION AND SERVICES | | |
| | Staff Costs Non Pay Costs | 5,556 3,355 | 5,147 3,081 |
| | Total | 8,911 | 8,228 |
| 10. | GENERAL EDUCATION EXPENSES | | |
| | Staff Costs Non Pay Costs | 525 190 | 529 68 |
| | Total | 715 | 597 |



11. STUDENT SERVICES

| | €000 | 2012 / 2013 €000 | €000 | 2012 €000 |
|---|-------------|---------------------|-------|--------------|
| | Staff Costs | Non Pay | Total | |
| Subvention to Clubs, Societies and Students Union | 187 | 711 | 898 | 972 |
| Student Services | 127 | 464 | 591 | 340 |
| Careers Advisory Services | 197 | 190 | 387 | 280 |
| Sports and Recreation | 48 | 315 | 363 | 106 |
| Health & Counselling | 125 | 117 | 242 | 234 |
| Student Services Co Ltd | 1,176 | 1,878 | 3,054 | 3,354 |
| | 1,860 | 3,675 | 5,535 | 5,286 |

The expenditure relating to Student Services Company Limited is provision of a mini market, bistro, shop and canteen services to the students of CIT.

12. ANALYSIS OF EXPENDITURE

| | Staff Costs | Depreciation | Other operating expenses | 2013 | 2012 |
|-------------------------------------|-------------|--------------|--------------------------|--------|--------|
| | €000 | €000 | €000 | €000 | €000 |
| Research Grants and Contracts | 6,182 | 1,266 | 6,479 | 13,927 | 15,667 |
| Academic Departments | 45,880 | 1,271 | 5,193 | 52,344 | 51,451 |
| Academic Support Services | 1,794 | 659 | 946 | 3,399 | 3,130 |
| Facilities Costs | 1,460 | 1,369 | 4,296 | 7,125 | 8,872 |
| Central Administration and Services | 5,556 | 1,436 | 3,355 | 10,347 | 9,666 |
| General Education Expenses | 525 | - | 190 | 715 | 597 |
| Student Support Funding | 96 | 5 | 456 | 557 | 534 |
| Student Services & Amenities | 1,860 | 292 | 3,675 | 5,827 | 5,628 |
| 2013 Total | 63,353 | 6,298 | 24,590 | 94,241 | 95,545 |
| 2012 Total | 62,878 | 6,296 | 26,371 | | |

| | 2013 | 2012 |
|---|-------------|--------|
| | €000 | €000 |
| | | |
| Materials & other Consumables | 3,109 | 3,319 |
| Library Materials | 212 | 203 |
| Computer costs | 1,130 | 1,208 |
| General Education | 1,537 | 1,492 |
| Services to students | 1,302 | 466 |
| Research costs | 301 | 112 |
| Project Partners | 1,069 | 2,035 |
| Equipment | 1,037 | 1,370 |
| Premises Costs | 5,235 | 6,836 |
| Travel & Subsistence/Hospitality & seminars | 2,025 | 1,891 |
| Personnel Costs | 1,159 | 1,111 |
| Professional fees | 3,952 | 3,925 |
| Auditors Remuneration | 34 | 28 |
| Communications | 280 | 277 |
| Stationery & office materials | 1,000 | 1,043 |
| General advertising & Publicity | 366 | 510 |
| Insurance | 314 | 372 |
| Bad Debt Provision | 207 | - |
| Finance costs | 125 | 104 |
| Loss on asset disposal | 5 | 6 |
| Other | 191 | 63 |
| | 24,590 | 26,371 |
| | | |

13. TAXATION

None of the activities of the Institute, other than the Innovation Centre, are liable to Corporation Taxation under the Charitable Status obtained in January 1993 by the Department of Education.



14. FIXED ASSETS

| | Total | Buildings | Buildings In Course of Construction | Fixtures & Fittings incl. Prefabs | Computer Equipment | Plant & Machinery | Equipment | Motor Vehicles |
|-------------------------------------|---------|-----------|---|---|-----------------------|----------------------|-----------|-------------------|
| CONSOLIDATED Cost or valuation | €000 | €000 | €000 | €000 | €000 | €000 | €000 | €000 |
| At 1 September 2012 | 182,752 | 135,617 | 144 | 9,704 | 14,068 | 4,235 | 18,591 | 393 |
| Additions | 8,586 | 3,716 | 2,590 | 498 | 557 | 619 | 598 | 8 |
| Disposals | (2,451) | | | (14) | (2,025) | _(126) | (286) | |
| | 188,887 | 139,333 | 2,734 | 10,188 | 12,600 | 4,728 | 18,903 | 401 |
| Depreciation | | | | | | | | |
| At 1 September 2012 | 73,183 | 34,291 | - | 7,263 | 12,494 | 2,468 | 16,311 | 356 |
| Charge for year | 6,298 | 3,303 | - | 619 | 1,043 | 347 | 971 | 15 |
| Disposals | (2,446) | | | (13) | (2,025) | (126) | (282) | |
| | 77,035 | 37,594 | | 7,869 | 11,512 | 2,689 | 17,000 | <u>371</u> |
| Net Book Value At 31 August 2013 | 111,852 | 101,739 | 2,734 | 2,319 | 1,088 | 2,039 | 1,903 | 30 |
| Net Book Value At 31 August 2012 | 109,569 | 101,326 | 144 | 2,441 | 1,574 | 1,767 | 2,280 | 37 |

Cost or Valuation:

Land and Buildings in existence on 1 January 1993 were valued by the Valuation Office. Other fixed assets in existence on that date were valued by the Institute on the basis of open market value for existing use. Subsequent additions are stated at cost.

CIT has commitments on properties leased for academic use amounting to €705,000 (2012 - €1.934m).

14. FIXED ASSETS - Continued

| l | | |
|---|---|-----|
| | _ | ~) |
| | 3 | 9. |
| | | |

| | Total | Buildings | Buildings In Course of Construction | Fixtures & Fittings incl. Prefabs | Computer Equipment | Plant & Machinery | Equipment | Motor Vehicles |
|-------------------------------------|----------|-----------|---|---|-----------------------|----------------------|-----------|-------------------|
| INSTITUTE Cost or valuation | €000 | €000 | €000 | €000 | €000 | €000 | €000 | €000 |
| At 1 September 2012 | 181,300 | 135,501 | 144 | 8,499 | 14,000 | 4,235 | 18,528 | 393 |
| Additions | 8,190 | 3,711 | 2,590 | 134 | 555 | 619 | 573 | 8 |
| Disposals | _(2,448) | | | (14) | _(2,022) | _(126) | _(286) | |
| | 187,042 | 139,212 | 2,734 | 8,619 | 12,533 | 4,728 | 18,815 | 401 |
| Depreciation | | | | | | | | |
| At 1 September 2012 | 72,096 | 34,265 | - | 6,282 | 12,449 | 2,468 | 16,276 | 356 |
| Charge for year | 6,132 | 3,279 | - | 499 | 1,033 | 347 | 959 | 15 |
| Disposals | (2,446) | | | (13) | _(2,025) | (126) | (282) | |
| | _75,782 | _37,544 | | 6,768 | _11,457 | 2,689 | 16,953 | _371 |
| Net Book Value At 31 August 2013 | 111,260 | 101,668 | 2,734 | 1,851 | 1,076 | 2,039 | 1,862 | 30 |
| Net Book Value At 31 August 2012 | 109,204 | 101,236 | 144 | 2,217 | 1,551 | 1,767 | 2,252 | 37 |

Cost or Valuation:

Land and Buildings in existence on 1 January 1993 were valued by the Valuation Office. Other fixed assets in existence on that date were valued by the Institute on the basis of open market value for existing use. Subsequent additions are stated at cost.

CIT has commitments on properties leased for academic use amounting to €705,000 (2012 - €1.934m).



| | | Con | solidated | | Institute | |
|-----|---|----------------------|-----------------------|----------------------|-----------------------|--|
| | | 2013 €000 | 2012 €000 | 2013 €000 | 2012 €000 | |
| 15. | DEBTORS AND PREPAYMENTS | €000 | €000 | €000 | €000 | |
| | Tuition Fees State & Other Capital Grant | 15,073 132 | 909 | 15,073 132 | 909 | |
| | Research Grants and Contracts | 3,614 | - 2,446 | 3,500 | 2,415 | |
| | Prepayments and Accrued Income | 404 | 553 | 412 | 443 | |
| | Other debtors Total | <u>987</u> 20,210 | <u>2,108</u> 6,016 | <u>868</u> 19,985 | <u>2,102</u> 5,869 | |
| | | | = 5,5.15 | | | |
| 16. | CREDITORS AND ACCRUED EXPENSES | | | | | |
| | AMOUNTS FALLING DUE WITHIN ONE YEAR Payments received in Advance. | | | | | |
| | Research Grants and Contracts | 8,093 | 8,195 | 7,919 | 8,044 | |
| | Deferred Income Student Support Funding | 149 | 272 | 149 | 272 | |
| | | 8,242 | 8,467 | 8,068 | 8,316 | |
| | Trade Creditors and Accruals | 579 | 545 | 409 | 441 | |
| | State Capital Grant | 130 | 1,524 | 130 | 1,524 | |
| | PAYE | 1,122 | 1,060 | 1,093 | 1,024 | |
| | PRSI | 553 | 512 | 529 | 480 | |
| | Income Tax Withheld Other Creditors | 36 388 | 51 277 | 36 370 | 51 263 | |
| | Accruals and Deferred Income | 19,932 | 6,800 | 19,744 | 6,609 | |
| | | 22,740 | _10,769 | 22,311 | _10,392 | |
| | | 30,982 | 19,236 | 30,379 | 18,708 | |
| 17. | DEFERRED CAPITAL GRANTS | | | | | |
| | Opening Balance | 109,569 | 107,886 | 109,204 | 107,833 | |
| | Capital Grants Receivable | | | | | |
| | State Capital Grant - DOES | 132 | 1,728 | 132 | 1,728 | |
| | Allocated from State Recurrent Grant – HEA | 2,422 | 2,753 | 2,422 | 2,753 | |
| | Registration Research, Grants & Contracts | 8 2,869 | 34 1,037 | 8 2,831 | 34 898 | |
| | State grant for minor capital works - DOES | 1,383 | 1,259 | 1,383 | 1,259 | |
| | Student Support | - | 15 | - | 15 | |
| | Transfer from Capital Development Reserve | 1,772 | 1,159 | 1,414 | <u>763</u> | |
| | Release to Income | 118,155 | 115,871 | 117,394 | 115,283 | |
| | Amortisation in line with asset depreciation | (6,298) | (6,296) | (6,132) | (6,075) | |
| | Amount released on disposal of Fixed Assets | (5) | (6) | (2) | (4) | |
| | Closing Balance | 111,852 | 109,569 | 111,260 | 109,204 | |



| | | 2013 €000 | 2012 €000 |
|-----|---|--|-------------------------------------|
| 18. | CAPITAL DEVELOPMENT RESERVE | | |
| | Balance 1 September Transfer from Income and Expenditure Account Transfer to Expenditure – Self Funding Transfer to Capital Account | 6,917 1,737 (37) <u>(1,772)</u> | 4,690 3,491 (105) _(1,159) |
| | Balance 31 August | 6,845 | 6,917 |

The transfer to Reserve of €1.737m is made up of €1.033m from Student Registration Fees, €150,000 from Research Grants & Contracts, €358,000 from CIT Student Services Company Limited and €196,000 interest earned.

19. CAPITAL COMMITMENTS CONTRACTED FOR BUT NOT PROVIDED

The value of capital commitments entered into and outstanding at 31 August 2013 amounted to €1.608m.

20. STUDENT MAINTENANCE GRANTS

| Receipts from the Department of Education and Skills (Colleges Section) | 1,686 | 3,362 |
|---|--------------|---------|
| Payments to Students | (1,329) | (2,639) |
| Payments to Students (top ups) | (357) | (723) |
| Net Cash Inflow | - | - |
| Opening Balance Closing Balance | - | |
| Closing bulance | | |

The Institute processes payments to students in respect of ESF maintenance grants which are notified by the relevant VEC or Local Authority. Funding for these payments is provided by the Department of Education and Skills with co-funding provided by the European Social Fund (ESF). These transactions are not included separately in the Income and Expenditure Account.

21. EMPLOYEES

The average number of staff employed by the Institute for the year ended 31 August 2013 was 1,162 (2012: 1,126).



22. SUBSIDIARY COMPANIES

A company, CIT Innovation Centre Limited, was established by the Institute in August 2004. For the purpose of preparing the financial statements of CIT it was necessary to consolidate the activities of CIT Innovation Centre Limited. The company showed a profit for the year of \in 11,099 (2012 - \in 3,866) while net assets for the year amounted to \in 87,791 (2012 - \in 101,042).

A company, Cosmos Education Limited, was established by the Institute in January 2008. For the purpose of preparing the financial statements of CIT it was necessary to consolidate the activities of Cosmos Education Limited. The company showed a loss for the year of $\in 8,703$ (2012 - $\in 1,711$) while net assets for the year amounted to $\in 27,397$ (2012 - $\in 18,191$).

A company, CIT Student Services Company Limited, was incorporated by the Institute in 1994. For the purpose of preparing the financial statements of CIT it was necessary to consolidate the activities of CIT Student Services Company Limited from September 2012. The company showed a profit for the year of \in 81,189 (2012 - \in 129,272) while net assets for the year amounted to \in 1,116,679 (2012 - \in 1,035,490). The 2012 comparative figures are for a 14 month period.

A company, CIT Foundation Limited, was established by the Institute in July 2007. For the purpose of preparing the financial statements of CIT it was necessary to consolidate the activities of CIT Foundation Limited. The company showed a profit for the year of \leq 46,722 (2012 – loss \leq 2,006) while net assets for the year amounted to \leq 179,934 (2012 - \leq 133,212).

23. INVESTMENTS

Cork Institute of Technology have entered into joint venture arrangements with GAC Training and Service Solutions Limited with effect from 11 February, 2010 and SEFtec NMCI Offshore Training Limited with affect from 31 May 2010. Cork Institute of Technology hold 25,000 shares in each company and this comprises a 50% shareholding.

In May 2013 Cork Institute of Technology took a 10% shareholding in nSilcio at a value of €0.01 per share (15,384 shares) in accordance with the CIT Campus Company Policy. The purpose of the policy is to provide transparent structures and procedures around the establishment of an ongoing relationship between Campus Companies and the Institute.

24. THE NATIONAL MARITIME COLLEGE OF IRELAND & CORK SCHOOL OF MUSIC

The National Maritime College of Ireland (NMCI) is a partnership between Cork Institute of Technology (CIT), the Irish Naval Service, the Department of Education and Skills, the Department of the Agriculture, Food and the Marine and the Department of Defence. The land on which the NMCI is constructed is the property of the Department of Education and Skills.

The Cork School of Music is a partnership between Cork Institute of Technology and the Department of Education and Skills. The land on which the Cork School of Music is constructed is the property of the Department of Education and Skills.

CIT academic, technical, administrative and support staff in the Cork School of Music and the NMCI remain employees of CIT.

25. INCREMENTAL ENTITLEMENTS

In prior years a High Court claim was made against Cork Institute of Technology (CIT) for alleged incremental entitlements. The plaintiffs' Case can be summarised as relating to two points of law, first to seek to rely on Article 40.1 of the Constitution and second that the awarding of successive part-time temporary contracts was not within the powers of CIT under Section 11(4) of the Regional Technical Colleges Act, 1992. At a preliminary hearing the High Court ruled the plaintiffs' were not entitled to rely on Article 40(1) of the Constitution. On the second issue the High Court held that the facts set out in the plaintiffs' amended statement of claim were insufficient to enable the Court to determine whether the granting of successive part-time temporary contracts was within the powers of CIT. The Court reserved costs. Senior counsel advice identified findings in the Judgment regarding the awarding of successive part-time temporary contracts that could prejudice CIT's position at the substantive hearing of the plaintiffs' claim, if not appealed. Conciliation efforts subsequent to the preliminary hearing were not successful and as a consequence CIT has concluded it is necessary to appeal the preliminary High Court ruling to the Supreme Court.

143

26. DISCLOSURE OF TRANSACTIONS - GOVERNING BODY MEMBERS

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.

27. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Governing Body on 1 May 2014.



7. Other Information

Cork Institute of Technology

- 7.1 News & Events
- 7.2 Alumni Association
- 7.3 Contact Points

7.1 News & Events

- Professor Sajal Das from the University of Texas at Arlington visited the Institute on 14 August 2012. Prof Das was awarded an SFI Walton Fellowship Award to carry out his research at the NIMBUS Research Centre, CIT Bishopstown Campus.
- The Crawford Centenary Exhibition opened to the public for one month beginning on Cork Heritage Open Day on 18 August 2012 to 21 September 2012 (Culture Night). The exhibition featured memorabilia and artefacts gathered over the 100 years relating to the Crawford's history.
- 3. The Mature Student Orientation Programme 2012 took place at the Institute on 28 and 29 August 2012. Over 100 incoming mature students attended the event. Its purpose was to assist the mature student in preparing for the transition into CIT and to familiarise them with the campus and the staff, services and systems within the Institute.
- 4. The opening of the Dairy Price Volatility Conference 2012 took place on 3 September 2012 in CIT Bishopstown Campus. The Conference was launched by Mr Simon Coveney TD, Minister for Agriculture, Food and the Marine with Prof Andrew Novakovic, Professor of Agricultural Economics, Cornell University, USA as the keynote speaker.
- 5. The President and members of the Institute's Senior Staff attended a presentation by Dr Shashi Kumar, Academic Dean/Assistant Superintendent for Academic Affairs of the United States Merchant Marine Academy, King Point, New York at the NMCI on 5 September 2012. Dr Kumar was based at the NMCI Research Strategy and presented his results of his visit at the presentation.
- 6. The opening of the TEDxCIT event took place on 6 September 2012 at the CIT CSM hosted by the Institute's School of Business. The theme of the global initiative was "Creating our future together" which featured 10 of the region's leading philanthropists, academics and designers representing such diverse fields as technology, entertainment, design and education. The event was a great success and the feedback from emails and tweets was very positive. More than 300 people from around the world watched the event live on the web and it was the second highest tweeting trend in Ireland.
- Ms Mary Pierce, Chair of Lawrence Kinlin School of Business and colleagues from Fanshawe College, Colleges Ontario visited the Institute on 10 September 2012. The purpose of their visit was to meet with the Head of Faculty of Business & Humanities, Mr Damien Courtney and the Senior Staff of the Faculty to continue to further collaborations between both Institutions.
- A successful RIAI Accreditation visit in relation to the Masters programme in Architecture took place on 11 September 2012. The Panel recommended full accreditation.

- The Ireland Skills Competitions 2012 took place at the Institute week commencing 10 September 2012. The Awards Ceremony took place on 14 September 2012 and was attended by:
 - (i) Lord Mayor of Cork, Cllr John Buttimer
 - (ii) Minister Kathleen Lynch TD, Minister for Disability, Older People, Equality & Mental Health
 - (iii) Mayor of the County of Cork, Cllr Barbara Murray

The competitors were master craft persons and the country's best in 11 skills areas:- Automobile Technology, Carpentry, Construction Plant Fitting, Electrical Installation, Industrial Control, Joinery, Mechatronics, Metal Fabrication, Plastering, Refrigeration and Welding. All finalists had already won preliminary competitions in the various Institutes of Technology around the country.

- 10. A very successful Careers & Employment Fair 2012 took place in the Student Centre on 2 October 2012. A total of 69 stands were included in the event, comprising over 63 external organisations as well as various CIT services and departments. Very positive feedback was received from staff and organisations.
- 11. The annual Faculty of Business & Humanities Awards took place on 18 October 2012 in the CIT Tourism & Hospitality building, Bishopstown Campus and 32 awards were presented on the night.
- 12. Conferring of Degrees and Other Awards for the Faculty of Business & Humanities took place in CIT Bishopstown Campus on 19 October 2012. There were four conferring sessions and 1,192 graduands obtained their parchments.
- 13. Conferring of Degrees and Other Awards for the Faculty of Engineering & Science and CIT CCAD took place in CIT Bishopstown Campus on 22 October 2012. There were four conferring sessions, 931 graduands from the Faculty of Engineering and Science as well as 211 graduands from CIT CCAD obtained their parchments. Also there were two joint awards conferred:
 - BA (Honours) in Multimedia Hochschule Darmstadt/CIT
 - MSc in Biomedical Sciences CIT/UCC
- 14. The Institute's first stand-alone Postgraduate Conferring Ceremony took place in CIT Bishopstown Campus on 23 October 2012 and 27 graduands (12 Doctorates and 15 Masters) obtained their parchments.
- 15. Conferring of Degrees on students of CIT Cork School of Music and CIT/UCC CCAE took place in CIT CSM on 25 October 2012, 43 graduands from CIT CSM obtained their parchments and 48 graduands from the CCAE also obtained their parchments for the CIT/UCC joint awards in:
 - Bachelor of Science (Honours) in Architecture
 - · Master of Architecture

- 16. CIT hosted the 2012 National IDI Graduate Design Awards exhibition and Gala Awards Show during Design Week 5 – 9 November 2012 at the Bishopstown Campus. This was an excellent opportunity to see the work of Ireland's best young design graduates on exhibition. Disciplines such as craft design, furniture, fashion & textiles, interiors & exhibition, digital media, visual communications, motion graphics, and production design all featured.
- 17. In aid of CIT GAA and Suicide Aware, the students of MSc Marketing Practice with the organisation and catering of the class of Hospitality Studies Year 2 held a Coffee Morning on 7 November 2012. A total of €1,595.43 was raised with all proceeds going to Suicide Aware.
- The CIT Annual Mass of Remembrance and Thanksgiving for our deceased Governors, students, staff members, and for staff members and students who have lost loved ones in the past year took place on 7 November 2012.
- 19. On 8 November 2012, the CIT Xero2020 test-bed project was announced as a winner of the Institute of Designers in Ireland Awards for 2012. The project was outright winner in the sustainable design category and highly commended in the interior design/exhibition category.
- 20. The Launch and Information evening for the Volunteer Abroad 2013 programme took place on 13 November 2012 at the Bishopstown Campus. The Volunteer Abroad programme has run successfully over the past two years, supporting 30 students from various disciplines across the Institute, volunteering on projects around the world. The evening formally opened the application process for students and provided them with an opportunity to learn more about the volunteer abroad experience.
- 21. As part of CIT Students' Union Positive Mind and Body week which ran from 20 22 November 2012, the SU held a "Please Talk Remembrance Candle-Lit Event" for all our loved ones who lost their lives to suicide. The President gave the opening address at the Remembrance, which took place on 21 November 2012.
- 22. A Retirement function to mark the retirement of staff who retired from 1 January 2011 to 31 January 2012 took place on 23 November 2012.
- 23. A "Mature Student Information Evening" for fulltime Undergraduate Programmes took place on 27 November 2012. The aim of the evening was to promote CIT as a third-level destination to prospective mature students and to provide information on the following:
 - Opportunities available at CIT
 - · Course content, entry requirements and closing dates
 - How to apply to CIT as a mature student
 - Student support services in CIT
 - Mature student supports
- The 5th anniversary celebrations of CIT BCO took place on 29 November 2012.

- 25. The CIT Sports Bursary Presentation Evening took place on 5 December 2012. The event saw 107 student athletes across 22 different sports presented with a prestigious sports bursary. The guest speaker, Irish Olympian Race Walker and Irish "Athlete of the Year", Robert Heffernan along with his wife Marian, Irish 4x400m Relay Olympian, performed the presentations along with sharing their historic Olympic sporting experiences.
- 26. An "Open Day" for Guidance Counsellors was held in the Institute on 6 December 2012. A total of 82 Guidance Counsellors attended on the day, with 64 of these coming from Cork City and County and the remainder coming from the greater Munster region. Presentations were given on the Institute's new courses as well as plans for the Institute's future.
- 27. The 2013 Ireland Skills National Competitions took place the week commencing 10 December 2012. The Award Ceremony took place on 14 December 2012 and was attended by
 - The Deputy Lord Mayor, Cllr Joe Kavanagh
 - Ms Kathleen Lynch TD, Minister for Disability, Older People, Equality & Mental Health
 - The Mayor of the County of Cork, Cllr Barbara Murray

The following skills groups were presented with awards: Automobile Engineering, Carpentry, Construction Plant Fitting, Electrical Installation, Industrial Control, Joinery, Metal Fabrication, Plastering, Refrigeration, and Welding

All finalists had already won preliminary competitions in the various Institutes of Technology around the country.

- 28. The CIT CoderDojo chapter had its first national success at the recent BT Young Scientist Exhibition. At the awards ceremony, three of the students from Coláiste Choilm won the HP "Innovation4Good" award. These students started coding a number of months previously through CIT CoderDojo. For their project "Revision Precision" they developed an App to promote productive revision techniques.
- 29. A delegation from the Irish Technology Leadership Group (ITLG) Conference visited the Institute on 21 January 2013. They were given presentations by Mr Paul Healy, Manager Rubicon Centre, and Dr Dirk Pesch, Head of NIMBUS Centre for Research in Embedded Networked Systems.
- 30. Prof. Dr Ralph Stengler, President, and Prof. Dr Bernd Steffensen, Vice President of Research and Development, Hochschule Darmstadt, University of Applied Sciences, Darmstadt, Germany, visited the Institute on 23 January 2013. Their two day visit was to discuss the developments between the two Institutions.
- 31. The CIT Students' Union Safety Week took place at the Bishopstown Campus from 11 to 14 February 2013. The aim of the week was to educate students and staff about safety, personal safety, substance use, road safety and saving lives. A Road Traffic accident re-enactment



- took place on 13 February highlighting the damage done if involved in a road traffic collision.
- 32. The Spring Conferring Ceremony took place at the NMCI on 14 February 2013 and 78 graduands obtained their parchments which included the first cohort of students from the Master of Arts in Art & Process, CIT CCAD.
- 33. The prestigious Gala celebrating the 2013 Chinese New Year took place at the CIT CSM on 23 February 2013. The celebrations were attended by Mr Luo Linguan, Chinese Ambassador to Ireland and Cllr John Buttimer, the Lord Mayor of Cork. It was co-organised by the Overseas Chinese Affairs Office of the State Council of the People's Republic of China, Chinese Embassy in Dublin, Cork City Council, UCC, and UCC Confucius Institute.
- 34. The School of Graduate Studies hosted a Postgraduate Fair on 26 February 2013. The Fair was mainly directed at final year undergraduates and past graduates exploring the options for research and further study. It also offered Higher Education Institutions, professional institutes, and training bodies external to CIT with an opportunity to promote their postgraduate opportunities to prospective applicants both within CIT and the wider Munster region.
- A Retirement Function to mark the retirement of staff who retired from 1 February 2012 to 31 January 2013 took place on 1 March 2013.
- 36. The Institute's Annual Presentation of Institute Prizes Ceremony took place on 12 March 2013. This event honoured the outstanding graduates of 2012.
- 37. Ms Mary Doyle, Deputy Secretary General, Department of Education and Skills, visited the Institute on 22 March 2013. Ms Doyle was given an overview presentation on CIT by the President and also taken on a tour of the Rubicon and NIMBUS Centres.
- 38. The Institute supported the 10th Year of the Cork Life Long Learning Festival which ran from 18 to 24 March 2013. It organised various daily events at the Bishopstown Campus, CIT CSM and CIT CCAD.
- 39. The President attended meetings with Colleges Ontario, Durham College, Fanshawe College and Niagara College in Canada from 5 to 12 April 2013. A CIT Articulation Agreement with Fanshawe College in Architectural Technology and the Business area were also signed. The purpose of his visit was to review progress, explore how cooperation might be improved and diversified between the Colleges Ontario, CIT and the IOTs in general. Approval has been announced that all Institutes, including CIT, who submitted documentation through IOTI to the Ontario Ministry of Training Colleges and Universities have been included on the list of approved organisation of the Ontario Student Assistance program (OSAP).
- Mr Seán Sherlock TD, Minister of State for Research & Innovation officially opened SciFest 2013 at CIT on 19 April 2013. SciFest is a national festival of science

- organised regionally in collaboration with the Institutes of Technology and is open to all second level students. It was created to provide an additional forum for students to present and display the results of their scientific investigations, following the success of the BT Young Scientist and Technology exhibition which has been running very successfully for over forty years.
- This year's event at CIT showcased 146 projects exhibited by 330 students across Cork City and County.
- 41. The 27th Cork Mechanical, Manufacturing & Biomedical Engineering Exhibition took place at the Bishopstown Campus on 25 April 2013. The Theme of this year's exhibition was "CIT Engineering First in Europe First in Ireland First in Innovation". It is one of the largest exhibitions of its kind in Europe with over 240 stands participating this year.
- 42. Mr Seán Sherlock TD, Minister of State for Research & Innovation officiated at the launch of the Supports and Services on offer to companies in Ireland by the TESLA Project on 10 May 2013 at the Bishopstown Campus. TESLA is a transnational innovation support project involving eight partners from six EU Member States. The overall objective of the project is to support the growth and development of early stage High Potential Start Up (HPSU) companies in Ireland, Wales, Germany, France, Belgium and the Netherlands. The Irish Partners are CIT, BMW Regional Assembly, and the Lionra Colleges.
- 43. Events at CIT BCO on 22 April 2013 were very well received by students, teachers and media alike. Places for the "Solution to Pollution" workshops at CIT BCO MakesSpace and the curated exhibit and planetarium experiences in "Cosmos at the Castle" were filled to capacity. The live Digital Learning Network (DLN) NASA link up via Beautiful Earth was also fully subscribed.
- 44. The Annual CIT Sports Awards presentation ceremony took place in association with Bank of Ireland on 29 April 2013. The Awards are a celebration of a successful sporting year and the award winners are those who capture the very essence and display the true value of sporting involvement. The recipients are a reflection of the various different levels of activity from participation to organisation and administrative skills right up to and including unique and elite sporting achievement.
- 45. The launch of a new website for Arts & Culture at CIT took place on Monday 29 April 2013 in the CIT CSM. Managed by CIT's Arts Office, the new website is a comprehensive source for details of the rich cultural tapestry of arts and cultural activities in, and associated with, CIT. It will also feature the full catalogue of artworks in CIT Collections, showcasing many works by graduates from CIT CCAD and other artists who have exhibited in CIT. The Institute is proud of the variety and quality of its arts venues, which include the Curtis Auditorium, Stack Theatre and Ground Floor Concourse of the CIT CSM, CIT Wandesford Quay Gallery and the Sullivan's Quay Complex at CIT CCAD; James Barry Exhibition Centre, Rory Gallagher Theatre and Curve

Gallery at CIT Bishopstown Campus, and the CIT BCO. Throughout the year, these venues host events by students, staff members, graduates, professional artists and community groups, and play an important role in the cultural life of the region. The website will be a vibrant communication platform between CIT and the wider community in Cork and a resource for anyone looking to find an activity or event for their cultural diary.

- 46. CIT's Department of Construction became the first in Ireland to sign a University Partnership with the Royal Institution of Chartered Surveyors/Society of Chartered Surveyors Ireland (RICS/SCSI) in respect of its BSc (Hons) in Quantity Surveying. The RICS/SCSI only forges partnerships where the scale or reputation, the research and teaching capability, and the quality of academic staff and graduate output, are sufficiently high to enable each such institute to remain a significant partner capable of keeping pace with the RICS/SCSI drive towards ever higher standards. The fact that CIT is the first in the country to reach this milestone is the latest testimony of the excellent tripartite relationship that continues to develop between academic staff in the Department of Construction, RICS/SCSI as the premier professional institution for Chartered Surveyors and practicing Chartered Quantity Surveyors to achieve the highest levels of academic and professional standards in response to the needs of the construction industry.
- 47. The Minister for Education and Skills, Mr Ruairí Quinn TD attended the Conferring Ceremony which took place on 9 May 2013. The following awards were conferred:
 - Higher Diploma in Science in Software Development
 - · Higher Diploma in Science in Cloud Computing
 - Higher Diploma in Science in Cloud & Mobile Software Development
 - Bachelor of Science (Honours) in Cloud Computing
 - Master of Science in Cloud Computing
 - Master of Science in Computational Biology

The first graduates of the Masters Programme in Cloud Computing were conferred. A leader in the provision of education in the sector, in 2012 CIT launched the world's first suite of Masters and Undergraduate Degree programmes in Cloud Computing. These programmes are targeted at graduates from non-computing disciplines to match the needs of industry. Graduates from the CIT Cloud Computing programmes possess the key in-demand skills that industry requires. CIT is now a major player contributing to the growth of a cloud eco-system within Ireland and providing graduates with the necessary skills to fuel Ireland's ambition to become a key global location for the expansion of the cloud computing industry.

The Departments of Biological Sciences and Computing also saw their first cohort of MSc in Computational Biology students graduate. CIT was commended by the Minister for its foresight in developing new technology driven interdisciplinary courses, equipping graduates

- with the skills necessary to succeed and thrive in an information technology driven society. In the biological sciences alone, large scale genomic sequencing projects have generated an ocean of new data which needs to be navigated successfully in order to identify and develop new therapies and technologies in the fields of science and medicine.
- 48. A visit by the United Technologies Research Center Technical Council to the NIMBUS Centre took place on 14 May 2013.
- 49. A delegation from Tong-Ji University, China visited the Institute on 22 May 2013. The delegation was most interested in the de Blacam designed buildings at Bishopstown Campus and also toured the Architecture Factory. They visited the CCAE on 21 May 2013.
- 50. The President visited the Hochschule Darmstadt University of Applied Sciences, Germany from 23 to 24 May 2013 to further collaborations between the Institute and Darmstadt and to sign the latest consortium agreement between the two Institutions.
- 51. The Halpin Centre for Research and Innovation at the NMCI was officially opened by Mr Seán Sherlock TD, Minister of State for Research & Innovation on 27 May 2013. This exciting new development will further enhance the international reputation of the NMCI as a centre of maritime excellence. The Chairman of the Governing Body, and the Flag Officer of the Navy also attended the event.
- 52. At the request of the HEA, the Institute welcomed a delegation of senior US Academics from distinguished Universities to the NIMBUS Centre for Embedded Systems Research on 28 May 2013. As part of their visit to Ireland they had discussions with a range of research funding agencies and also visited the Tyndall Institute, UCC.
- 53. As part of their visit to a number of Institutes, the Institute welcomed a delegation of 15 Malaysian-Chinese High Schools to CIT (organised by Enterprise Ireland) on 30 May 2013. The purpose of their visit was to gain an understanding of the Irish Education system, of the courses offered, to visit campus facilities and meet with Malaysian students on campus.
- 54. On 30 May 2013, the Minister for Education and Skills, Mr Ruairí Quinn TD, announced a major re-organisation of the country's higher education sector that includes provision for the creation of new Technological Universities.

This announcement follows recommendations made by the HEA to Minister Quinn. The HEA's report called for consolidation of the Institute of Technology (IT) sector; the creation of a small number of technological universities; the formation of regional clusters between universities and stronger ITs; implementation of recommendations to rationalise teacher education; as well as increased sustainability and capacity in the higher education system.



The recommendations in the report will result in the consolidation of three groups of Institutes of Technology to progress towards attaining Technological University status. They are:

- The Dublin Institute of Technology, the Institute of Technology Tallaght and the Institute of Technology, Blanchardstown
- Cork Institute of Technology and the Institute of Technology Tralee
- Waterford Institute of Technology with Carlow Institute of Technology

The next stage for each of these Institutions is the preparation of a plan to meet the criteria for Technological University status. The plan must be based on a legally binding memorandum of understanding between each consortium of institutions describing their consolidation into a new single institution.

The plans will be evaluated by an independent expert international panel that will decide if the applicant can meet the agreed criteria in the proposed timetable and can proceed to the final stage.

- 55. As part of their two-day visit to Cork, the Institute hosted a visit by the British Ambassador, Dominick Chilcott, and Mr Paul Caplis, Head of UK Investment, on 31 May 2013. They had a particular interest in Research and Development and the business and community engagement areas regarding Business start-up support, Technology Transfer and EU projects. They visited the Rubicon and NIMBUS Centres.
- 56. The NIMBUS Centre Launch of Phase 2 of the Water Systems and Services Innovation Centre (WSSIC) (a partnership between CIT, Cork City Council and Cork County Council) took place on 10 June 2013. The Minister of State for Research & Innovation, Mr Seán Sherlock TD attended.
- 57. In response to The Gathering 2013, CIT hosted its inaugural Erasmus Staff Training Week (18 – 22 June 2013) with twenty-five international visitors from CIT's partner institutions in France, Germany, Spain, Italy, Poland, Denmark, and the UK, attending the event. The programme, designed to give the visitors an overview of the Institute's unparalleled range of learning, innovation, research and community outreach activities, consisted of an impressive programme of presentations, tours and networking opportunities at each campus location. The programme's daily themes included entrepreneurship, research, industry liaison, Erasmus/Internationalisation (including a thought-provoking presentation in Ireland's history of international outreach up to and including Erasmus, by Mr Gerry O'Sullivan, Head of the Erasmus National Agency at the HEA), alumni relations, student services, as well as the Irish language, tourism and hospitality, Irish food, and the history and heritage of Cork.
- 58. The Conferring of Degrees and Higher Certificates took place on 20 June 2013 in the NMCI. Seventy-two

- graduands received their parchments.
- 59. The Continuing Education Handbook 2013/2014 was launched by Mr Ernest Cantillon, President, Cork Business Association on 25 June 2013.
- 60. The 62nd Cork City Sports took place in the CIT Athletics Stadium on 2 July 2013. This event is one of Cork's most prestigious sporting occasions boasting representation from over 30 countries as Ireland's sole European Athletics Permit Meeting. CIT was delighted to host and proud to welcome a field of leading International Athletes and Olympic medallists from around the world and indeed Ireland to the Institute's campus.

151

7.2 Alumni Association (CITAA)

The CIT Alumni Relations Office is the means through which CIT Alumni can maintain close links with their alma mater and with fellow graduates and also avail of a wide range of benefits and services. The loyalty, support and involvement of alumni with the Institute is vital to ensure CIT's future success in delivering Ireland's knowledge-based economy. CIT Alumni Association has approximately 17,500 members. The database holds details of graduates from all campuses, at all levels and from all disciplines.

CIT provides all alumni with free membership of CIT Alumni Association. A wide range of benefits, services, and events are on offer to registered members.

An Alumni Association Committee is established and consists of alumni and staff who advise the Institute on how to best engage with graduates and to further develop the Association.

Alumni are encouraged to keep their contact details current through email, website, social networking sites or direct contact with the Alumni Relations Office.

First Destinations Survey

CIT Alumni Association and the Careers and Counselling Service in CIT conducted a First Destinations Survey (FDS) of the 2012 CIT graduates in April 2013. The survey collects data from recent graduates to determine numbers in employment, numbers seeking employment, and those participating in further study or training. The information will be of benefit to students, graduates, Institute management, employers, policy makers and all those with an interest in higher education.

A 30.8% fully completed response rate was achieved. A survey of the 2013 graduates will be conducted in spring 2014.

Events (September 2012 – August 2013)

• October 2012: Careers Fair at CIT

• March 2013: Construction Economics Class of 1987

Reunion

• June 2013: Spraoi@CIT

Communications

- The Alumni E-News was circulated as follows to:
 - o 8,685 constituents in December 2012
 - o 10,377 constituents in April 2013
 - o 10,486 constituents in July 2013



7.3 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

CIT CRAWFORD COLLEGE OF ART & DESIGN

Address

Sharman Crawford Street, Cork

Telephone

+353 21 433 5200

Fax

+ 353 21 433 5201

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 August 2014

Compiled 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

Design & Layout Raven Design, Cork

Translator

Niall Ó Murchadha, Gallimh

