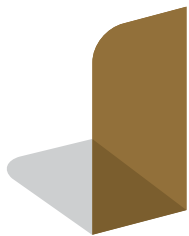
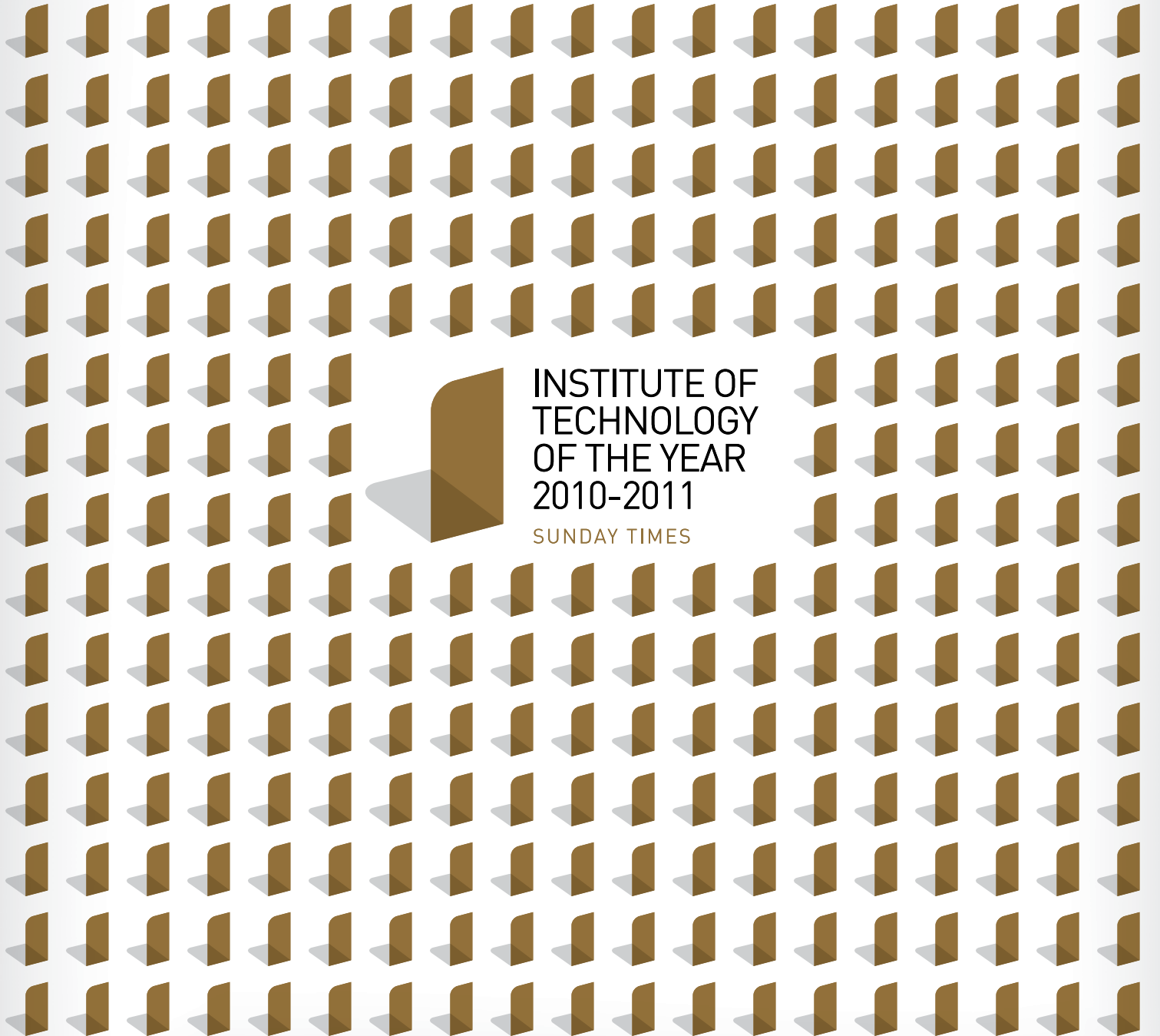


CITY

THE LEARNING



MAGAZINE OF CORK INSTITUTE OF TECHNOLOGY
DECEMBER 2010 • VOLUME 12 ISSUE 2



INSTITUTE OF
TECHNOLOGY
OF THE YEAR
2010-2011

SUNDAY TIMES



Ireland's EU Structural Funds
Programmes 2007 - 2013
Co-funded by the Irish Government
and the European Union



EUROPEAN UNION
STRUCTURAL FUNDS

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Chinese links

A strong delegation of representatives from CIT, Cork Chamber, UCC and Cork City Council travelled to Shanghai, China to promote Cork and to develop new business opportunities and partnerships in culture, education and research.

Representing CIT was Orla Flynn, Acting Head, Crawford College of Art & Design who said, "Cork Institute of Technology is seeking to explore new and consolidate existing relationships with Universities in Shanghai, Dalian, Wuhan and Jingzhou. Particular areas of interest are in Art & Design, where CIT Crawford College of Art & Design wishes to establish connections with the College of Fine Art at the University of Shanghai, with a view to bringing the work of renowned glass artist Prof. XiaoWei Zhuang and his students to exhibit in the CCAD's new exhibition space at Wandersford Quay Gallery. The National Maritime College of Ireland, which is part of CIT, will also feature in the promotional activity".

The week-long visit builds on the success of previous missions since the twinning of Cork and Shanghai in May 2005. China is now one of the world's leading economies and Cork businesses are competing and seeking to win business in this dynamic and fast changing market. Businesses from the construction, tourism, education, engineering and technology sectors will build on this success and take part in a range of promotional events with their Shanghai counterparts with a view to generating business and highlighting the opportunities which exist for Chinese companies to invest in Cork. UCC and CIT representatives will seek to further develop educational and research linkages while Cork City Council will focus on furthering cultural partnerships.

PhD Student, Xiao Fang Zhang showcased a promotional CIT DVD, designed to attract Chinese Students to study at CIT, at the Irish Pavillion at Expo 10 in Shanghai, China. The three-minute promotional video was produced by Raven Design in Cork and showcased the best of Cork and Xiao's experience since coming to Ireland. Xiao, originally from Dalian City, in China, has been a student at CIT since 2004 and graduated with a BEng (Honours) in Mechanical Engineering.

Xiao's "Postcard from the Edge OF Europe" can be viewed at <http://www.youtube.com/watch?v=kbMLyErvIp8>



Articles and photographs for the next issue of the magazine can be sent to Anne Twohig, CIT Press, Cork Institute of Technology, Bishopstown, Cork.
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Statements and opinions expressed herein are not necessarily those of Cork Institute of Technology.



SURVEY NAMES CIT AS 'INSTITUTE OF TECHNOLOGY OF THE YEAR'

CIT has been named as Institute of Technology of the Year in The Sunday Times University Guide, one of the largest, and most respected, such guides in the world with 1.4m copies printed in different editions. CIT was previously recognised as Institute of Technology of the Year in 2006.

The award is based on performance in The Sunday Times league table which is drawn up from criteria including the calibre of students the institution attracts, research quality, degree results achieved, student/staff ratios, graduate employment levels and student retention rates.

CIT's selection for this prestigious award was also based on CIT moving up two places on The Sunday Times Irish University league table for 2010/11; having Ireland's second best employment rate in the third level sector and very strong student satisfaction.

CIT was also recognised for having the best output of postgraduate research students in the institute of technology sector; enhanced student services with the new Access and Disability Support Centre and increased involvement with the arts with the opening of its new city centre art gallery in the Wandesford Quay Gallery.

CIT's expanded International links were recognised, such as its partnership with The University of Pune, one of India's leading universities. Its strong track record in research and supporting start-up businesses and its appointment of one of the country's first 'Entrepreneurs in Residence', Kieran Moynihan, who began his role this September at CIT, were also contributory factors.

Dr Brendan Murphy, President, CIT, said: "We are extremely pleased to be awarded the title of Institute of Technology of the Year. This is a great honour for our students, our staff and for Cork. It is gratifying that so many of our innovations, be they academic, in terms of course provision, or physical, in terms of our new Access and Disability Support Centre and our acquisition of the CIT Wandesford Gallery, have been noted for praise. This diversity is key to our continued success: we operate cutting edge engineering and science research centres alongside colleges teaching art, music, business, humanities and maritime studies; we offer an extremely wide range of highly sought after courses on a campus with some of the country's finest sports facilities.

We must not rest on our laurels. Increased demand, and the economic situation, means that there are many challenges and changes ahead for the higher education sector. We will continue to do what we do best: teach, innovate, engage externally and create a culture where students, graduates and staff can be at their best. From this will come our success and our continued contribution to the country's future. Finally, I must pay tribute to our Governing Body, and particularly to its Chairman, Dr Paddy Caffrey, for their diligence, guidance and sagacity over the years."

Also commenting on the Award, CIT Registrar and Vice President for Academic Affairs, Dr Barry O'Connor, said: "We are particularly pleased that the Institute's commitment to the full spectrum of the Student Experience is recognised, from Access initiatives through undergraduate success to postgraduate and industry engagement. This engagement by CIT staff, on behalf of the Institute's student population, is reflected in the consistently high demand for our graduates and the equally successful record of the Institute in attracting funding for applied research. It is vital for the well being and advancement of the third level sector that such engagement with the student, on one hand, and the enterprise/community/business sectors, on the other, are integrated in the mission and the delivery of CIT."



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EMC-VMWARE-CIT AND CLOUD COMPUTING

Today, most businesses rely on cloud computing in one form or another, even if it is not part of official corporate IT strategy. Ask any business person if they resort to using Gmail, Hotmail or another web-based email system as a back-up to their primary work email, and most will confirm that they do.

In such cases, cloud computing is widely accepted because it gets the job done. What is less clear, however, is which cloud infrastructure model will emerge as the market leader for enterprise wide applications and services. There are private clouds within individual enterprises, the public cloud, federated/shared structures, and hybrids that combine elements of all three.

A private cloud exists behind a company's firewall and includes highly virtualised compute, storage, network and workplace environments. While concerns persist over security, data privacy, performance and commercial terms, organisations do not need to relinquish control over their valuable corporate information using a private cloud infrastructure. Some workloads and applications are not candidates for the public cloud and will remain behind a company's firewall, while other content may not require such stringent control, enabling an organisation to tap into the shared pool of infrastructure resources and third party services available through the public cloud.

The public cloud consists of pre-packaged services, available through third parties including infrastructure, platform and application services. As yet, there are insufficient virtualised private environments and publicly available services to operate a true cloud environment. However, that will change – and companies will need to analyse the advantages and disadvantages of private versus public cloud computing, depending on their organisation's particular needs.

For smaller organisations, for example, cloud computing offers unprecedented access to the type of flexible, scalable systems that, previously, were only available to large enterprises. Private cloud becomes an option where a provider will deploy dedicated hardware on or offsite, which an IT user will then run services from. The private nature of this implementation means that businesses have the ability to fully customise their cloud environment. However, the costs involved in building the cloud infrastructure can outweigh the benefits. Hence, it tends to be large global enterprises with multiple locations that typically go down the private cloud route, giving them the flexibility and scalability of cloud, while gaining better control and centralising management responsibilities.

When considering moving towards cloud computing, essentially, both internal and external applications need to be managed in an integrated, uniform fashion across whatever sort of cloud infrastructure they are hosted on. So whether you're an enterprise creating your own 'private' cloud or a service provider delivering 'public' cloud services, poor performance will immediately erode trust, reduce adoption and impact revenue. End-to-end application performance management is critical to ensuring high-quality cloud services both internally and externally.



The Opportunity

From a management perspective, when an organisation deploys cloud computing, there are certain things its leaders expect to happen. They will sign a contract. They will need to define governance, security and service level agreements. They may need to adapt existing business processes in order to embrace new applications and new ways of working. What they might not anticipate is how cloud computing will change the role played by the company's CIO and the culture of the whole IT organisation. The speed to deployment and delivery of service that Cloud offers, means IT is approached differently – rather than being the person who builds and manages the infrastructure, the CIO, IT directors and managers become the people that can spend time doing things the business really care about and can deliver true value to the organisation, rather than just 'keeping the lights on'.

If CIOs insist on remaining in control of internal applications and spending their time worrying about infrastructure issues, they may quickly become irrelevant. The move to cloud computing should be seen as an opportunity to deliver real financial impact, to help the business better manage the investment portfolio which is the true role of a CIO and IT manager. While services may become utilities, they are a long way from being something you plug in and forget about. Cloud is a sophisticated toolset that requires careful thought about how you manage and adapt existing processes, how to continue to coach the business to keep it moving forward, and there are significant integration challenges.

The cloud environment also opens up an opportunity to be more innovative. CIO's will have to become comfortable with a faster pace of doing business, as major innovations can be implemented in a much shorter period, as can the competition. Cloud applications tend to be updated much more frequently than older applications, which often were left to just slide into obsolescence. This new agility wipes out the natural advantage companies with large IT operations traditionally had over smaller, newer businesses, creating a more level playing field for organisations of all sizes.

Key drivers of change

There are three key drivers for organisations looking at better ways of managing their information more efficiently and cost effectively:

- 1) Information is growing by 60% year on year. For many organisations, keeping pace with that kind of growth has become more onerous in recent years than ever before, putting skills in information and storage management to the test and pushing demand for storage capacity to new heights.
- 2) At the same time IT managers are also wrestling with new legal and regulatory demands that dictate what data must be kept, for how long and how quickly it must be retrieved. And they must find smarter, more innovative tools and technologies to address these challenges, against a backdrop of widespread IT spending cuts.
- 3) Our economic slowdown is compelling organisations to be more stringent on the purchase of storage media and systems. Many data centres are rapidly running out of space, and power consumption needs to be decreased yet they are still to manage growing data. As a result, they will be forced to get more not only from existing storage systems, by boosting utilisation rates and jettisoning redundant and duplicate information, but also from available data centre space, by consolidating storage capacity into fewer, more efficiently utilised systems.

A three-pronged attack

In the drive for greater efficiency, say industry watchers, organisations will battle that storm on three fronts: complexity, cost and automation. In terms of complexity, for example, high-profile initiatives like storage consolidation and virtualisation have greatly simplified and demystified storage infrastructures. However, if not approached in the right way, such technologies can create more information management challenges than they solve. Storage consolidation and virtualisation should be focused on how an organisation manages its information and not how it stores its data.

From a cost perspective, organisations need to classify and tier their information and deduplicate. Storage tiering requires working closely with the business units across an organisation to put policies in place allowing current, business critical data to be stored on high-performance disk drives and older data to be archived to very large, lower-performing drives. Deduplication technologies are used to detect and eliminate information that is already stored elsewhere in an organisation's storage infrastructure and this can work at a number of different levels. File-level deduplication, for example, is where one copy of a file is retained as a reference and all other copies of the file are replaced with a unique identifier, or 'pointer', to the file. Object-level deduplication, can be applied not just to a single file, but also to collections of files – usually associated with compliance projects. Finally, block-level deduplication breaks data into small blocks, or 'chunks', and assigns a unique identifier to each chunk – this is largely relevant in back-up and restore environments today.

The third step is automation. Today's storage automation technology aims to take day-to-day storage decisions and tasks out of the hands of hard-pressed IT staff and automatically allocate data and information to different storage tiers, according to pre-defined rules relating to their business value. Automation tools for storage virtualisation, thin provisioning and tiered storage are three hot tickets in this space. A more intelligent approach to information management and storage needs to take all three 'storm fronts' into account. But wider economic conditions notwithstanding, it's a great time for companies to think about re-architecting their storage infrastructures, because the efficiency gains and increased value that can be achieved will make maximum impact on efficiency focused businesses.

With a virtualised environment, organisations have the opportunity to get their entire IT infrastructure running as a single pool of highly efficient computing resources. Having embraced virtualisation, some organisations are using early wins in the area to start exploring cloud computing in more depth.

Because virtual machines are hardware independent and portable, virtualisation can help customers move their applications between their own data centres – or the internal cloud – and external clouds. This idea of federation between internal and external clouds based on virtualisation is where the developments in this area are being focused. Virtualisation is the first step on the journey to cloud computing. The direction taken by organisations, is often lead by their technology partners.

Accelerating the Journey to the Cloud

In order to address worldwide spending on data centre technology and services, EMC, VMware and Cisco launched the Virtual Computing Environment coalition, an unprecedented collaboration of three information technology giants.

According to McKinsey and Company, IT costs exceed \$350 billion annually with half spent on products and half on operating expenses services and labour. Approximately 70% is spent on maintaining existing infrastructures, leaving 30% or less for new technology initiatives and applications that can provide breakthrough differentiation for businesses. It is also estimated that approximately \$85 billion, or 20% of the infrastructure market, can be addressed with data centre virtualisation and private cloud technology by 2015, two cornerstones of the VCE proposition.

Alleviating the concerns of companies that are reluctant to trust their IT infrastructure and services to a public platform, the VCE offers a radical new approach to enterprise IT infrastructure. The coalition has created Vblock infrastructure packages to help organisations streamline and optimise IT strategies around private clouds, and restructure controlled data centre environments to provide on-demand and software-as-a-service solutions.

The ready-to-go packages are fully integrated, tested, validated and highly scalable, combining best-in-class virtualisation, networking, computing, storage, security, and management technologies from Cisco, EMC and VMware with end-to-end vendor accountability. The packages help customers create an environment for a virtual IT infrastructure that is securely controlled and operated solely for one organisation, run either by themselves or a service provider, on or off-site.

This offers organisations of all size an accelerated approach to data centre transformation with dramatic efficiencies that promise significant reductions in both capital and operating expenses, with proven savings of around 40 per cent and quick return on investment. Furthermore, organisations no longer have to choose between best-of-breed technologies and end-to-end vendor accountability – it both simplifies the infrastructure and customer engagement using a global community of systems integrators, service providers, channel partners, and independent software vendors to roll out the packages.

Cloud Computing Degree – CIT

In order to address current industry challenges and the increasing customer demand for cloud computing solutions, EMC's employees identified a need for upskilling in this area. Based on EMC's ongoing relationship with CIT and the Institute's strong credentials in the area of cloud computing, EMC approached CIT in November 2009 to assist EMC in developing and delivering a part-time upskilling and re-skilling programme for its staff members.

The Virtual Computing Environment (VCE) coalition and supporting customers' journey to the private cloud, is a key strategy for EMC going forward. Therefore, the aim of a new degree programme is to help employees upskill in the area of cloud computing. The course contains an in depth review of storage (EMC), virtualization (VMware), networking (Cisco) and security (RSA) as well as the underlying technologies associated with Cloud Computing.

As an education partner CIT offers a quality educational experience and has forged strong links with EMC, VMware and Cisco including:

- A track record of delivering programmes for EMC
- A Cisco Networking Regional Academy with state of the art labs
- A virtualisation offering with VMware Academy
- Staff expertise in the area of cryptography and security

Tim Horgan leads the curriculum design team, joined by subject experts from EMC, VMware, Cisco and RSA. This team designed new modules in the area of storage, networking, virtualisation and security which will be complimented by existing modules to form new level 8 and level 9 offerings in cloud computing. The theory component of each module will be delivered on the EMC campus with laboratory work on the CIT campus.

30 students were identified within EMC and VMware and in September 2010 the course started with Networking and Programming bridging moving into Level 7 in January 2011. This course will take the students 18 months to complete, on successful completion the students move into the Level 8 in cloud computing. The roadmap has scheduled a standalone Level 8 and Level 9 offering in September 2011 - which will be made available for remote/online delivery for the first time. This will open up the course to global audiences in EMC, with Cisco, VMWare and RSA as potential participants.

The road ahead

Current economic and information growth pressures demand a complete reassessment of information management strategies at many organisations. That will be no easy task – particularly because it will require a complete break from recent practice when it comes to making storage and information management investments. As part of this, the decision to move to cloud computing is looking less like a conscious decision and more like a natural, logical evolution as time progresses. The interesting choices around which cloud to deploy will be dependent on what an organisation needs, what resources they have and which partners they choose to work with through this organisational and infrastructure changes. Further education in the area of cloud computing will ensure employees across the VCE coalition will be in the best position to deliver the highest levels of service as the VCE helps customers accelerate their journey to the cloud.

(L – R) Pat Punch, Senior Manager, Customer Service Remote, EMC Ireland Centre of Excellence; Jim O'Dwyer; Mary Butler, Learning & Development Manager, EMC Ireland Centre of Excellence; Bob Savage; Michael Loftus; John Dolan; Kate O'Connor, HR Director, EMC Ireland Centre of Excellence; Gordon O'Reilly, Programme Manager, VMware; Andrew Mulcahy, Senior HR Business Partner, VMware.



(L – R) Jim O'Dwyer, Head, Department of Computing, CIT; Bob Savage, Vice President, EMC Ireland Centre of Excellence; Michael Loftus, Head of Faculty of Engineering & Science, CIT; and John Dolan, Senior Director VMware GSS EMEA, Japan, China.



(L – R) Pat Punch; Mary Butler; and Tim Horgan, Cloud Computing Programme Coordinator and Lecturer, CIT.



Nimbus Research Centre

is formally opened ...

On 20th September, the Nimbus Research Centre was formally opened by Minister for Enterprise, Trade and Innovation, Batt O Keeffe. CIT senior staff, Nimbus research colleagues from CIT and from all over Ireland, and Nimbus industry partners were among the large attendance. Following a welcoming address by Michael Delaney, CIT Vice-President for Development, Dr Brendan Murphy, President, CIT, made an address in which he described the importance of the Nimbus building for CIT:

“To begin with, it makes for a more efficient innovation ecosystem. It greatly enhances CIT’s interaction with our academic collaborators and our industry partners, both of whom have dedicated office and laboratory spaces in the building. It provides an environment where researchers from varied and diverse backgrounds can meet at any time and from these encounters new ideas can be regularly generated. It houses all the facilities that a modern industry-facing research and innovation centre requires to be internationally competitive. It facilitates interactions between undergraduates and those who have experiences beyond theirs. It encourages and teaches entrepreneurship within a real world environment, solving real world problems, yet still relying on fundamental understanding of engineering and science to do so. In this way, undergraduate students get a better appreciation of the need to be able to solve problems and not merely memorise facts and figures... In short, NIMBUS brings greater coherence, coordination and concentration to our research and innovation efforts, thereby making sure that CIT addresses fundamental issues within the Smart Economy in a cost efficient manner that ensures value for the money invested by the State.”

The following address was then given by Dr Dirk Pesch, Head of Centre, in which he reviewed the background, activities and objectives of Nimbus:

“I am delighted to stand here today at the opening of the Nimbus Research Centre, looking back at the long journey my colleagues and I have undertaken from the small research group we setup in 2001, starting with 5 researchers, to one of the largest research centres in the IoT sector and the Irish third level sector in general, with more than 60 researchers today. The Nimbus Centre for Embedded Systems Research is now one of Ireland’s premier research organisations in the area of embedded electronic and computing systems research. But what are embedded systems? Embedded systems are the hidden computers which quietly monitor and control many aspects of our daily lives. Without embedded systems, domestic appliances would stop working, cars and all other forms of transport would come to a halt and our offices, factories and hospitals would cease to function. For every computer we can see, there are 100 embedded computers keeping equipment and communication systems running, keeping electricity flowing and keeping us safe in our homes, cars and workplaces. Within 10 years, as embedded systems become used to reduce our energy bills, to clean up our environment and to monitor our personal health, that figure will increase tenfold. The embedded systems industry will be one of the largest in the world and will be a major sector of Ireland’s knowledge economy.

Our research focuses on embedded systems, but not on single embedded systems, but rather on the new concepts of networked embedded systems and the Internet of Things. Most embedded systems today work in isolation, but we don’t want the ABS brake embedded system in your car to just make sure your brakes work well - we want it to communicate with the cars behind you to alert them when you are braking hard so that their drivers can avoid an accident. We don’t want the embedded system in your washing machine to just make sure your clothes are cleaned – we want it to collaborate with the embedded systems in your other appliances



CIT Vice President for Development, Michael Delaney; CIT Alumnus Robert Short; CIT President Dr Brendan Murphy, Minister for Enterprise, Trade and Innovation, Batt O’Keeffe, TD and Dr Dirk Pesch, Head of NIMBUS Research Centre.

and with your electricity supplier to make sure your appliances run when the wind blows to take advantage of renewable wind energy rather than electricity from the fossil fuel power stations that add so much to green house gas emissions. We don't want you to have to go to hospital for medical tests when embedded diagnostic systems can continuously monitor your health wherever you are. A world where the everyday objects in our lives can sense and collaborate – this is the Internet of Things and, just as the Internet has transformed our lives beyond recognition in only 20 years, we are only beginning to visualize the technological and social transformations that the Internet of Things will bring about.

Our research in Nimbus and with our NEMBES partners in UCC, Tyndall, Trinity College, UCD, NUI Galway, the Cork Centre for Architectural Education, Cork University Hospital, and Cork City Council, investigates how networked embedded systems and the Internet of Things can make a difference to all of our lives. We are working on making buildings more energy efficient and a more comfortable work and living environment for their occupants, we are investigating how such systems can increase patient safety in hospitals, and we investigate how networked vehicles and smart highways can make transportation more efficient and safer.

But we do not only carry out research for research's sake, we also educate the next generation of engineers to innovate in the space of embedded systems and to develop innovative embedded systems products. We also collaborate with industry to transfer our findings into the real world and to help industry to be more innovative and competitive. We have collaborated with over 70 Irish companies over the last three years, we are also enabling the participation of Irish SMEs in European research and development projects so they can exploit partnership and export opportunities across Europe. We are also active in securing Intellectual Property for Ireland and are licensing technology to industry to help them with their innovation needs.

The Centre and the building we are opening today have not come about through the work of a single person - they are the result of the hard work and dedication of a team of researchers, the generous support of the HEA and other funding agencies such as Enterprise Ireland and SFI, the excellent collaboration with our partners from across Ireland, and the fantastic support that CIT, in particular the President and the Development and Research Offices have given us.

On behalf of all of my colleagues in Nimbus, I would like to thank the Minister and the HEA for their generous financial support of the NEMBES PRTL cycle 4 project, which has enabled CIT to build this state-of-the-art research environment, I would like to thank Rob Short, a former graduate of CIT, for all the advice and support he has given us in equipping this building and its laboratories with state of the art instrumentation, I would like to thank all funding agencies for their continued support of our research, I would like to thank our NEMBES partners for supporting our application for funding and their excellent collaboration in the NEMBES research programme, and I would like to thank our colleagues in CIT, in particular the development and research offices and

our colleagues in the department of Electronic Engineering for their support and contribution to reaching this milestone we are celebrating today. A special thanks must also go to Larry Poland and Paul Sliney, former heads of Electronic Engineering, who had a vision for research and education that inspired us to get to where we are today.

We look forward to continuing to drive technology development in the area of networked embedded systems in collaboration with our partners across Ireland and Europe."

Minister O'Keeffe then addressed the audience prior to the unveiling of a plaque commemorating the opening, stating that:

"At this time of economic challenge, it is more important than ever that we obtain value for money from our State investments. I am delighted to say that the NIMBUS facility was built on time and under the original budget. It was one of the first PRTL Cycle Four-funded buildings in the country to be operational. Globally, embedded systems research is a multi-billion euro industry offering enormous export potential for Ireland. This is significant because our economic recovery will be export-led and the activities in NIMBUS can be readily translated into global products and processes.

We have already heard about the translational capabilities of the research and innovation ongoing here and how this is being applied across many disciplines from ICT to biotech to health and energy. This broad applicability of NIMBUS is both a hallmark and an assurance of sustainable funding pathways in the future. The Innovation Taskforce identified the need to ensure we translate research investment into sustainable jobs and economic growth. We need to strengthen the links between our research institutions and industry to ensure that we develop, transfer and apply knowledge in productive ways.

I am pleased to say that CIT is performing exceptionally in this area. In the past three years, NIMBUS researchers have engaged with over 70 companies in funded projects, almost 60 of which are Irish SMEs, and with a further 80 companies in providing advice. It is further heartening to see that NIMBUS researchers are the top performers in Ireland in terms of Innovation Vouchers. They now have a series of successful innovation partnerships and direct industry funding where Irish industry looks to NIMBUS to provide solutions that increase their commercial competitiveness. These industrial-academic collaborations are central to the Government's economic strategy of creating a thriving enterprise sector and high-quality employment."

Embedded systems are used in every technological sector for sensing, measurement, diagnostics and control. The electronic products, machines and instruments that we use could not function without embedded systems and they are enabling innovative new products every day.

We encourage anybody who is curious about embedded systems for innovation, research and learning to contact us at <http://nimbus.cit.ie/contact-us/>

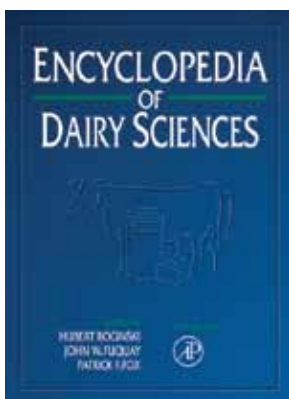


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An Roinn Fiontar, Trádála agus Nuálaíochta
Department of Enterprise, Trade and Innovation

CIT AUTHOR CONTRIBUTES CHAPTER TO ENCYCLOPEDIA OF DAIRY SCIENCES



Dr Aidan Coffey at the Department of Biological Sciences contributed a chapter on *Lactococcus lactis* in the new 4-volume Encyclopedia of Dairy Sciences.

The Encyclopedia, to be published by Elsevier Ltd, is a complete resource for researchers, students and practitioners involved in all aspects of dairy science and related food science and technology areas. Extensively cross-referenced, it covers the core theories, methods, and techniques employed by scientists. It will enable readers to access basic information on topics peripheral to their own areas, provides a repository of the core information in the area that can be used to refresh the researcher's own memory, and aids teachers in directing students to areas relevant to their course work. Aidan Coffey, the invited corresponding author of the chapter, was assisted by co-authors and research collaborators Dr Susan Mills (Research Officer at Moorepark Food Research Centre, Fermoy, Co. Cork) and Prof. Paul Ross (Head of Teagasc Food Programme and Director of Moorepark Food Research Centre, Fermoy, Co. Cork). The Encyclopedia will be available to University libraries later this year (estimated cost US\$1350.00).

Case Study – Heat Monitoring System, Eurotech Group

A new prototype heat monitoring system designed by the TEC (Technologies for Embedded Computing) Centre, CIT, has been deployed in Dunshaughlin Creche, Co Meath. This monitoring programme was initiated by Eurotech Group, a sustainable heating solutions company, in an effort to show the benefit of using a proper air to water heat pump.

The Eurotech Group found it difficult to convince potential customers of the cost benefits of their EuroSmart heating system. People are apprehensive about moving away from oil or gas because green sustainable technologies come with limited proof. To resolve those questions, it was decided that a prototype remote monitoring system to prove the EuroSmart performance should be developed. The EuroSmart system contains an Ochsner Airthermal super split system which has the ability to deliver perfect results in all extremities in Irish weather surpassing Oil, Gas and Geothermal.

A project funded with an Enterprise Ireland Innovation Voucher was setup with the TEC Centre to monitor the performance related to the integration of EuroSmart controls and geothermal heating with the use of real working systems.

The prototype system includes a remote station which is capable of monitoring in real-time the source temperature (air temperature in case of air to water heat pumps), internal building temperature,

flow rate, flow temperature and electrical power consumption of the heat pump. These parameters are then used to evaluate true efficiency of the heating system. The relevant data is communicated via GSM/GPRS link to a base station for processing and storage. The base-station operates a simple web-based user interface designed to collect and represent the monitored data in a simple intuitive graphical format. By allowing access to the current and past efficiency profiles, the user will be able to assess the true performance of the heating system under various operating scenarios and weather conditions.

Gerard Duffy of Eurotech says "over the past few years Ireland has been invaded by an influx of air to water heat pumps which are actually air conditioning machines modified to work as air to water heat pumps. A live independent monitoring system will prove the humid Irish climate is ideal for air to water heat pumps to deliver the highest results on efficiency and seasonal performance, surpassing all other forms of Geothermal heating."

The results from the project have shown there are substantial cost benefits to be gained by using a proper air to water heat pump to operate in difficult environments including freezing fog.

The system was deployed at the end of October and is currently gaining valuable data which is being recorded for further optimisations. Further information on the project and access to the live monitoring system can be found at: <http://projects.nimbus.cit.ie/eurotech/index.php>.



Centre for Advanced Manufacturing and Management Systems (CAMMS) is attached to the Departments of Biomedical, Manufacturing, Facilities and Mechanical Engineering. The Centre uses the expertise of these departments in solving problems for industry and in delivering up to date training and education. CAMMS is currently developing thematic knowledge areas that reflect the strengths of the faculty. Themes include:

- Control & Automation
- Sustainable Energy
- Biomedical Engineering
- Quality, Lean and Six Sigma
- Project Management
- Manufacturing Engineering

CAMMS acquires Leonardo Da Vinci Mobility Funding

CAMMS has acquired approximately €100,000 as part of the Leonardo Da Vinci Mobility programme. As part of this programme, 40 participants working in the areas of construction or facilities engineering, will visit the Kompetenz Zentrum für Holzbau und Ausbau (KOMZET), in Biberach an der Riss, Germany.

Participants will attend a two week programme on "Passive Housing and Sustainable Energy Technology using timber frame construction", i.e. PHASE. The programme will consist of a combination of six days training/practicals and four days on-site work experience. This will be an ideal environment for the transfer of knowledge and for the hands on application of that knowledge.

As part of the programme, participants will:

- Appraise the energy systems involved in passive building operations.
- Calculate the operational performance of equipment used in building heating, cooling and ventilation, utilising sustainable sources.
- Evaluate the criteria required to complete a design study for an energy systems for a building.

The Biberach region is a centre of excellence in the building of passive houses using timber frame construction. Building regulations for passive houses are extremely stringent and through KOMZET, innovative manufacturing processes have been developed to meet these stringent regulations. This programme will promote cooperation between centres of excellence for the transfer of knowledge, give participants the opportunity to gain essential international work experience (promoting mobility), and the transfer of innovative practices.

Leonardo Da Vinci is part of the European Commission's Lifelong Learning Programme 2007-2013, and focuses on vocational education and training, using transnational cooperation to improve quality, foster innovation and promote the European dimension of vocational education and training systems and practices

The general objectives of the programme are to:

- support participants in training and further training activities
- enable participants to acquire and use knowledge, skills and qualifications to facilitate their personal development, employability and participation in the European Labour Market

The funding will contribute towards:

- travel
- accommodation
- subsistence
- language, cultural or pedagogical preparation
- project management and monitoring

Trainers from Ireland, UK, Denmark, Spain, France and Germany attend the KOMZET Centre as part of a two week programme on the Energy Performance of Buildings. All training material was developed by CAMMS.



CAMMS launches Diploma in Project Management

The new programme, Diploma in Project Management, commenced on October 29th, in the Rubicon Centre. The course is a combination of lectures, seminars, case studies, guest speakers, simulations and practical projects.

The full programme consists of 14 full days, to be delivered over six months. The programme is made up of three modules (two at level 8 and one at level 9) each of which can be taken separately. The full programme will be accredited as a 15 credit Special Purpose Award at level 8 on the National Framework of Qualifications.

Covering all knowledge areas of the 'Project Management Body of Knowledge' (PMBOK® - which is administered by the Project Management Institute (PMI) in the USA), the Diploma in Project Management is an academically rigorous, engaging, challenging and rewarding learning experience. With the emergence of Project Management as a standalone profession, international accreditation across industries is becoming increasingly important. The course also prepares participants for the Project Management Institute (PMI) exams for certification as a 'Project Management Professional' (PMP®).

Student Enterprise

What does the student internship entail?

CIT Student Enterprise Intern programme was established to promote, develop and sustain enterprise among students in CIT. It is committed to helping students find out more about enterprise and to encourage participation. Throughout the college year many events and competitions will take place on and off campus to facilitate this effort.

Starting up a campus company is a daunting task; however the potential rewards are endless. With the success of previous campus start-ups such as Google and Facebook, the programme will convey to students that it is possible to develop their own company. Working closely with the Rubicon Incubation Centre, the seed of enterprise and entrepreneurship will be developed.

The CIT Student Enterprise Intern programme was officially launched in September 2009. There is widespread support for this project from the Director, Governing Body, Academic Community, and from external organisations such as Cork City and County Enterprise Board.

Student Enterprise Intern Training

Student Enterprise Intern training took place on the 18th and 19th October. Six interns attended the training from IT Sligo,

DKIT, Blanchardstown IT, and CIT (Nicola Walsh BBus, and Johnny Sheehy BEng.). The training included presentation skills, team building exercises and a chance to analyse current competitions and ideas for improvement.

The Goal for the Future?

Following successful trends in American Universities, the overall aim is to change students' ways of thinking in regards to enterprise and innovation. Creative and innovative ideas from the student's population can lead to infinite success and in turn create employment. With the fast moving economies of the world and the power of the internet causing almost instant globalization, it is crucial to gain first mover advantage in many markets. Students have the ability to get to the market first, even while undertaking academic activities.

Upcoming Events

(please check www.cit.ie for further details)

- Entrepreneur workshops for the CIT Prize for Innovation.
- Business Plan workshop
- Financial workshop
- Legal Workshop
- Innovation Workshop
- Creative Workshop

*Student Enterprise Interns
Nicola Walsh and Johnny
Sheehy with CIT Entrepreneur
in Residence, Kieran Moynihan.*



Develop a New Design for the IM Nail



A synthetic shin bone with an IM nail inserted is shown mounted on one of CIT's mechanical testing machines. A measurement device called an extensometer was attached around the fracture to record the motion between the bone fragments while the machine applied loads representative of walking. Similar tests were performed on prototypes of the novel IM nail

The Medical Engineering Design and Innovation Centre (MEDIC) is supported by the Enterprise Ireland Applied Research Enhancement (ARE) programme, with the aim of building the Biomedical Engineering and Medical Device Product Development capability within CIT.

MEDIC brings together the full set of skills to develop medical devices with clinicians, inventors and/or industry partners. These ideas are taken from initial concept, through the product development pipeline and on to commercialisation. Physicians are experts in the clinical needs aspect of product research and development but do not always have the technical expertise to convert the idea into a tangible product or technology. The MEDIC team has the technical skills to develop these medical device ideas and convert clinical needs into commercial reality. One such medical device which the MEDIC team is developing is a novel intramedullary (IM) nail for treating fractures of the long bones in the lower limbs.

IM nails are thin rods, usually made of a titanium alloy, that are inserted into the hollow space inside the bone called the medullary cavity. IM nails are widely used to treat fractures because they produce fewer complications such as infection and reoperation compared to external stabilisation devices, which require surgical pins to pass through the skin for the duration of treatment.

The MEDIC team has been working to develop a new IM nail that will accelerate fracture healing to get patients back on their feet sooner. The project began in 2006 and was inspired by the clinical observations of James Harty, who is now a consultant orthopaedic surgeon in Cork University Hospital. Mr Harty recognised that IM nails have not changed much in several decades and that something could be done to improve patient outcomes.

The MEDIC team explored a variety of design concepts and in late 2008 they applied for and received a Proof of Concept (POC) grant from the Enterprise Ireland Commercialisation Fund to develop the technology. A preliminary patent application was filed in August 2009 to protect the core design concept. Work on the POC commenced in autumn 2009 when several new staff members started work in MEDIC. The IM nail team now included staff with extensive experience in medical device product and process development, biomechanics research, clinical trial management, as well as Mr Harty who continued to offer clinical guidance.

For the next several months, the team investigated dozens of alternative design concepts, which were generated in group brainstorming and sketching sessions. The goal of this phase of the project was to redesign the initial concept to make it easier to manufacture and minimise surgical time and complexity, while offering the same clinical benefit for patients. The team also undertook a comprehensive review of the clinical literature pertaining to long-bone fracture healing and this process produced several new design guidelines. Approximately 20 related design concepts, or "embodiments of the invention", were included in a supplementary patent filing to broaden the intellectual property (IP) footprint of the technology.

The team then chose a few leading design concepts, tested prototypes, and refined the designs. In the spring of 2010, one concept emerged with key advantages in terms of simplicity, manufacturability, and the potential for accelerated healing compared to standard IM nails. With the help of collaborators from the Department of Anatomy in University College Cork, Mr Harty implanted prototype IM nails into cadaver tibiae, or shin bones, with simulated fractures. The MEDIC team tested the bones with the novel IM nails and confirmed that the device performed as expected. The test data also suggested some design modifications to enhance healing.

Armed with this information, the team completed the final international patent filing in August 2010 and continued the design refinement process. The team is currently testing the latest-generation prototype and another cadaver study is being planned.

First Industry and Module Partnered Innovation Competition



The Department of Accounting and Information Systems in conjunction with Clonakilty Agricultural College announced the winners of the first industry and module partnered 'Innovation Competition' sponsored by AIBP (Anglo Irish Beef Processors) Bandon.

AIBP Bandon worked closely with students studying Entrepreneurship to investigate business opportunities in the 'Beef and Agriculture' Sector. Students, working in teams from the BSc in Agriculture and BBus (Honours) in Information Systems, presented business plans which were assessed by the three partner organisations in this competition.

John Kelleher, Manager, AIBP Bandon says "We were very impressed with the standard of work, the students' enthusiasm and their engagement with the competition. AIBP is delighted to be working closely with CIT and Clonakilty Agricultural College in supporting and developing this 'Innovation Competition' for students in the future."

On the 14th May 2010, the following students were awarded first and second prizes from the CIT, Clonakilty Agricultural College, and AIBP Innovation Competition:

1st prize - €1,000 to Edmond Curtin, and James Fitzgerald

2nd prize - €500 to Kevin Humphreys, Eoin Murphy, and Patrick Keane

Blowing up a Storm in the Windy City

In October, CIT Bioinformatics group, headed-up by Dr Paul Walsh (Computer Science) and Dr Roy Sleator (Biological Sciences), joined two other Cork based start-up companies in a Cork County Council lead trade mission to Chicago, Illinois. During the week long visit, hosted by Cook County (twinned with Cork County Council), Sleator and Walsh presented their work on BioMapper™ – a cloud based computing system which provides software for life – at a number of meetings with both academics and potential investors.

A highlight of the trip was a visit to the Pritzker Institute of Biomedical Science and Engineering, at Illinois Institute of Technology (IIT). The Pritzker is a purpose built incubator housing multidisciplinary teams dedicated to the commercialisation of high end biotechnology based research analogous to CIT's PRTL15 funded CREATE building: an interdisciplinary centre for research into advanced therapeutic engineering.

The group also visited the John H. Stroger Jr. Hospital (formerly Cook County Hospital – the setting for the television series ER!). While George Clooney failed to make an appearance, the researchers were treated to a demonstration of the most advanced bio-imaging technologies currently applied in medical diagnostics.

Since returning from the US, the Bioinformatics Group has continued to make significant strides on a number of fronts. Most recently, the Group has been nominated for the Research and Innovation Award section of the IT@Cork Leaders awards; in recognition of their work on the BioMapper software platform. The award ceremony, sponsored by IBM, Enterprise Ireland, KPMG, Berkley Recruitment, Worky, Pepsico and Software Skillnets, took place in November and is an important event in the calendar of the ICT community.



Ron Mark, CIO, Cook County Hospital with Dr Roy Sleator and Dr Paul Walsh.



Dr Roy Sleator and Dr Paul Walsh visiting the Illinois Technology Association headquarters.

Furthermore, Bioinformatics Group member Dr Paul Walsh recently completed an Enterprise Ireland sponsored software project for food safety when he implemented a laboratory information management system (LIMS) that is now in use across multiple food processing plants for food giant Glanbia. The software is a multiuser web application that allows for food safety technicians to test and log food samples in a centralised system. All sample data is stored in a secure and compliant system that ensures that all data is traceable and auditable by the use of electronic signatures. Company Director Kevin Kenny noted that "CIT provided invaluable consultancy on the development of a laboratory information management software system for one of our leading customers. Paul played a leading role in architecting, designing and delivering the software within very tight deadlines."

Interdisciplinary New Product Development Module begins

The School of Business and School of Engineering are co-operating in delivering a new module titled Interdisciplinary New Product Development (MGMT 8026). The new module was designed to run in parallel with Innovative Product Development Labs (MECH 8009), the module taken by third year Mechanical/Biomedical/Product Design Engineers.

The aim is to bring business and accounting students through an action learning project in which teams made up of engineering and business students collaborate in developing an innovative product, estimate its commercial potential and plan for its exploitation.

Each new product team has a mix of engineering students and accounting, management and marketing students. The students share workshops on idea generation, team working and project management. The engineers, liaising on a continual basis with the business students, take responsibility for design and manufacturing issues. Business and accounting students investigate market potential, sources of finance and prepare a business plan in conjunction with their engineering team members. Engineering students have lectures and labs on product design, manufacturing and safety issues, while business and accounting students have lectures and workshops on new product development, marketing, costing and business planning. Student team members meet outside class time each week to work together on developing the product, and they are encouraged to give responsibility for sub tasks to team members. In previous years, CIT engineering and business students have had great success in Enterprise competitions, gaining prizes in the Enterprise Ireland student awards and winning the National first prize recently. While business students have contributed to business aspects of the innovative products heretofore, the new module Interdisciplinary New Product Development is the first time business students have their contribution to new product development scheduled as part of their course, and they will gain 5 ECTS credits for completing the module.

The modules are examined by continuous assessment, where student teams give presentations on progress or hand up reports on particular aspects of the innovative product or plans for its exploitation.

The Module is innovative in two ways. Firstly, the aim is to develop an innovative product, which can be successful and fill a market need. Secondly, the interdisciplinary nature of the module is innovative. For the first time, students from different Schools in CIT share in the process of developing and planning for the commercialisation of a new product, while business and accounting students receive academic credit for their role in planning and developing the product. Some classes, assessments and feedback sessions are held jointly, and some of the course is given to business students separate from engineer students. The interdisciplinary team aspect of the module mirrors the practice in many companies, where a team drawn from different functions across a company collaborate in developing a new product. The multidisciplinary nature of the product teams requires students to develop interpersonal skills and team working skills, which are essential in the workplace. Interim and final presentations of the new product plans give students experience of pitching their ideas to a panel of assessors, which is good practice for seeking to persuade a bank or venture capitalist post graduation.

The module was developed in CIT in association with the ACE Initiative. ACE (Accelerating Campus Entrepreneurship) is a collaborative project funded by SIF to foster the development of enterprise teaching and approaches in HEIs. Another initiative of ACE is the appointment of Enterprise interns on campus. Nicola Walsh BBus, and Johnny Sheehy BEng, are the current enterprise interns in CIT, with the mission of raising awareness of enterprise and entrepreneurship among the student population.

Products that emerge from the interdisciplinary teams will enter the CIT Entrepreneurship competition and the Enterprise Ireland Student enterprise Awards.

Next semester, as engineer members of the teams build a prototype of the innovative product in module MECH8010, business and accounting members will work to optimise the business plans, and progress other practical steps towards commercialising the new product in module MGMT8028.



Business/accounting and mechanical/biomedical engineering students on New Product Development teams and lecturers visit CIT's Nimbus and Rubicon enterprise centre

MASTERS PROGRAMME CONDUCTS VALUABLE RESEARCH FOR FOTA WILDLIFE PARK

Two of Cork's most prestigious institutions have come together to enhance the visitor experience at one of Ireland's most popular tourist and leisure attractions. The research was carried out on all aspects of Fota Wildlife Park and the findings, which have already been presented to the Board of Governors at Fota Wildlife Park, are being regarded as extremely valuable in the on-going development of this superb amenity which is currently undergoing a €4 million re-structuring of its entrance plaza and educational centre, with several new exhibits being prepared including an exciting Macaque experience.

This extensive research is one of a range of research projects being conducted each year as part of the Masters Programme at the Department of Continuing Education. Dr Angela Wright, research supervisor, states that the contribution of such comprehensive research is the life blood of current market activity and should not be underestimated, providing local industries and interest groups as diverse as the GAA and the Hotel industry with valuable research material from some of the best young marketing brains in the country, many of whom have returned to education while holding down top-level positions in a wide variety of commercial enterprises.

Paul Mahony, Head, Department of Continuing Education, says "The research at Fota Wildlife Park was an enriching challenge which will pay dividends for both management and visitor alike".

This research has been made available to the public since the inception of this successful taught Masters Programme three years ago and has been attracting attention at conferences throughout the world, in Government Departments, and some research has already been published in book form by leading publishing houses.

Paul Mahony says he is quietly proud of the amount and quality of the research being produced and he is especially conscious of the need for educational institutions like CIT to actively engage with Ireland's business communities, particularly in the difficult trading conditions at present times. "While being academic and intellectually skilled and challenging, our taught Masters Programme aims to be practical and extremely 'real' – we relish opportunities where the theory is tested so that we can refine the science of education to meet the needs of the day." Barry Murphy, Chairman, Board of Governors, Fota Wildlife Park presented the 'Kingsley Hotel Perpetual Trophy' to the winning group of researchers.



Front row: Dr Angela Wright with Catherine Murphy; Ann Geraghty; Collette O'Connor; and Deirdre Donovan.
Back row: Damien Courtney, Head, Faculty of Business and Humanities; John Meyler; Paul Mahony, Head, Department of Continuing Education; and Gerard O'Donovan, Head, School of Business; at Fota Wildlife Park to celebrate the MBS Taught Master's Programme's Visitor Experience research.

PLANNING OUR FUTURE: 9 IRISH COMPANIES ATTEND INDUSTRY OPEN DAY EVENT IN THE TEC CENTRE

On the 21st May, the TEC (Technologies for Embedded Computing) Centre hosted its first Industry Open Day. Nine Irish companies attended and represented a cross-section of TEC Centre clients, ranging from small start-ups and indigenous SMEs through to multinational companies. Several Enterprise Ireland staff also attended in addition to the CIT Technology Transfer Office.

The TEC Centre, based in the NIMBUS Centre, is funded by Enterprise Ireland as part of the ARE (Applied Research Enhancement) programme and is the primary industry interface of the Nimbus Centre. The Centre's main objective is to create a one-stop-facility for Industry R&D support in the region. This is being achieved by communicating state-of-the-art in research to industry, creating partnership activities, engaging researchers in industry relevant initiatives and providing effective prototyping facilities. The main areas of interest

include wireless systems, wireless sensor networks, miniaturised hardware, software development and intelligent user interfaces. The Industry Open day focused on developing an industry relevant applied research strategy for the TEC Centre over the period 2011-2014. Companies were also invited to provide feedback on the operational performance of the TEC Centre, the strategic focus of the Centre, the extent of industrial collaborations and its impact on industry and emerging market opportunities for companies. The Open Day also featured an extensive poster session and demonstrations of active research projects underway in the Centre.

The Open day was viewed very positively by all participants as a means of facilitating an industry-led strategy for the Centre, offering a deeper understanding of the capabilities of the Centre and promoting the continuing interaction between industry and applied research teams



New Book: Management in the Built Environment in Ireland

Management in the Built Environment in Ireland, a new book written by Dr Margaret Linehan (CIT), and Paul Greaney and Edel Foster (LIT) was recently published by Gill & Macmillan. This book provides a comprehensive introduction to the concepts, principles and practices of Management as applied to the Built Environment in Ireland.

The publication presents study topics relevant to the Irish built environment, including: planning, controlling, decision making, organising, leadership, motivation, communication, human resource management, and strategic management.

Current management issues, including the decline in the construction sector, the role of ethics and social responsibility for organisations in the built environment, barriers to women's participation in the construction sector, diversity in the workplace, the government's capital works management framework in the management of public capital projects, and managing during an economic downturn are discussed.

'Managing business in an economic downturn', a case study of CRH plc is included. This case illustrates how CRH manages suppliers, finances, and people since the economic downturn. Lessons learned from CRH include working under tighter financial constraints and succession planning. In relation to managing the future, CRH analysed all aspects of business, leading to cost reduction and cash generation measures being put in place to deal with varying trading circumstances as they evolve.

Written in a clear, accessible, and structured way to promote self-learning, each of the ten chapters contains learning outcomes and review questions. Key definitions and important terms and concepts are also highlighted throughout.

This book is suitable for undergraduates in building, civil engineering, construction management, quantity surveying, building surveying and architectural courses. It is also suitable for built environment professionals preparing for full chartered status of a professional institute where knowledge of management practice is a requirement of membership.



Search for Next Generation of Irish Innovators

The fifth annual Newstalk 106-108FM Student Enterprise Competition, in association with The Irish Times, was launched on the 12th October.

The competition is designed to develop an understanding of business management and promote early-stage entrepreneurship among third level students. Using a case study format, the competition encourages participants to research companies and, as part of a team, devise solutions to real life business scenarios.

The overall prize for the winning team, and its team coach, is a study trip to the Caribbean where they will shadow senior executives in leading telecommunications company, Digicel Group.

The competition is exclusively open to students based in Ireland's 15 Institutes of Technology and National College of Ireland. A record 1,400 students, representing 350 teams, entered the Newstalk 106-108 fm Student Enterprise Competition last year.

Commenting on the launch of the competition, Mr Denis O'Brien, competition Chairperson, said: "The Newstalk Student Enterprise Competition has grown significantly since its inception in 2006. With Ireland experiencing an extensive period of economic difficulty, today's third level students will play a pivotal role in Ireland's return to growth. Many of these students will go on to establish businesses that will provide vital employment and support local commerce."

"It is essential that we equip these students with as much business knowledge as possible to achieve their full potential. This competition instils a sense of entrepreneurship in students and the case study format provides them with a platform to apply the knowledge which they have gained through their studies", Mr O'Brien concluded.

During the preliminary stage of the competition, teams must submit written proposals to their local co-ordinator for the first round, which will be judged by their colleges. The top four entries from each college will then be given a second case study on which they present their submission to a local judging committee. Each of the 16 judging committees will consist of top local business and media representatives. The winning team from each college will receive prize money along with accommodation and hospitality in Tipperary for the National Semi-Final and Final in February 2011.

For further information and to enter the 2010/2011 Newstalk 106-108 fm Student Enterprise Competition, log on to – <http://studententerprise.newstalk.ie>



Pictured at the launch of the 2010/2011 Newstalk 106-108FM Student Enterprise Competition are (L - R) Don Crowley, Acting Head, Department of Accounting & Information Systems, CIT; Mary Sherry, Competition Manager, Newstalk 106-108FM Student Enterprise Competition; Bobby Kerr, RTE's Dragon's Den & Chairman, Insomnia Coffee Co; and Lisa Scannell, Department of Management and Marketing, CIT.

Annual Conferrings 2010



Aishling Quinlan received a BBus in Recreation & Leisure Management and Sarah Fennessy received a BA in Early Childhood Care and Education.



Fiona Hyland and Dara O'Sullivan received a BA in Social Care.



Dadeolu Odugbose with his mother Peju. Dadeolu received a BSc Information Technology Support.



Deirdre Mangan and Denise Haran both received a Masters in Public Relations.



Hockey players Clíodhna Sargent received a BBus (Honours); and John Hobbs was awarded a PhD in Business.



Dr Barry O'Connor, Registrar and Vice President for Academic Affairs, CIT, with Etaoin OhAilpín, who received a Bachelor of Business (Honours) and her brother Seán Óg.



Michelle Melia O'Sullivan received a BA in Counselling; with Dr Brendan Murphy, President, CIT.



Michael Tobin received a BSc in Agriculture and Jane O'Keefe received a BBus in Accounting.



David Duggan and Ian Whitford received a BBus (Honours) in Accounting.



Richard Cronin and Camilla Bastable received a BBus (Honours) in Marketing.



Anthony Kenny and Mark Golden both received a BBus in Management.



All from Killarney, Patrick O'Sullivan, BSc (Honours) Quantity Surveying; Aoife Cronin, BSc (Honours) Biomedical Science; and Colin Moynihan, BSc (Honours) Quantity Surveying.



Sarah Browne, Brenda Donovan, and Claire Egan received a BEng in Civil Engineering.



BSc in Analytical & Pharmaceutical Chemistry: David O'Brien, Alex Petrogalli, Adeline Robillard, Audrey Vizzini, Cedric Pelmoine, Marion Genelot, and Marie Chelier.



Edward Forristal and James Dowdall both received a BEng Mechanical Engineering.



Nicola Delaney, BSc in Applied Biosciences with Biotechnology; Aisling O'Connor, BSc in Food & Health Science; Alison Walsh, Applied Biosciences with Biotechnology; and Niamh Taylor, BSc in Food & Health Science.



Juliann Seery and Denise O'Callaghan received a BEng in Chemical & Process Engineering.



Seán Quinlan with his daughter Isabelle. Seán received a BSc in Construction Management.



Jennifer Meade and Daniel O'Sullivan received a BEng in Structural Engineering.



Kevin Niesen, Fadie Sakka and Derek O'Brien received a BSc (Honours) in Process Plant Technology.



Jennifer Dynan, Ciara O'Callaghan, and Laura Burke, received a BSc (Honours) in Architecture.



Richard Fenton and Alana Straub received a BSc (Honours) in Architecture, with Dr Brendan Murphy, President, CIT; and Dr Michael Murphy, President, UCC; at the first conferring of a joint CIT/UCC Architecture degree.



Laura Hanley and Orla Maher received a BSc (Honours) in Architecture.



Clare McAvoey and Gillian Hoare received a BSc Biomedical Science.

CIT BLENDED TUITION COURSES FOR CIMA

Business graduates can now access the internationally recognised Chartered Institute of Management Accountants (CIMA) accredited courses under an initiative between CIT's School of Business and CIMA. Under the initiative, CIT offers blended tuition to business students and managers studying for the CIMA Diploma in Management Accounting.

The CIMA blended tuition courses maximise the learning experience by facilitating distance learning with direct one-to-one online support from lecturers as well as a face-to-face lecture programme at the Institute. The six modules offered cover Enterprise Operations, Performance Operations, Financial Operations, Enterprise, Strategy, Performance Strategy and Financial Strategy, each of which is available through CIT in two week tranches. There are approximately 15 students taking these subjects this year at CIT. CIMA members are qualified Chartered Management Accountants who apply their business skills in many different areas and industry sectors. Typically, CIMA members go on to achieve senior positions as strategic managers in public and private sector organisations. The CIMA qualification is internationally recognised and provides job mobility with members working in 165 countries across the globe.

Locally, the Cork and Kerry branch are very active and have unique ties with CIT. Six members of the executive committee are former CIT students. The photograph on the right shows members of the local branch, staff at CIT and CIMA Dublin at a recent members support event hosted jointly by CIT's School of Business and CIMA Cork and Kerry. On the evening, Clancy Perins from the education unit in CIMA London provided tips on "Passing

First Time". Clancy is actively involved in rolling out the Blended Learning initiative in Ireland and has made Cork his second home in recent months. Sheila Lewis, CIMA Cork and Kerry Chairperson, delivered some interesting insights into the learning options available to Cork students.

The blended learning courses will be open to business managers and graduates of the Institute and surrounding business schools.

Students interested in learning more about the courses should contact Ruth Vance, CIT at E: ruth.vance@cit.ie or T: 021 4326556 or CIMA's Dublin Office at E: dublin@cimaglobal.com or T: 01 6430405.



Don Crowley, Acting Head, Department of Accounting and Information Systems, CIT; Sheila Lewis, President, Cork & Kerry CIMA; Clancy Peiris, CIMA Education UK; Karen Smith, Business Development, CIMA; Gerard O'Donovan, Head, School of Business, CIT; Ruth Vance, Lecturer, CIT; and Fiona Arnold, Student Recruitment Manager, CIMA; at the CIT/Chartered Institute of Management Accountants (CIMA) event held in CIT.

MASTER OF BUSINESS GRADUATE EVENT

On the 26th October, students from the Master of Business class 2009/2010 gathered to learn from an experienced panel, the issues that are relevant in CV preparation, Interview Techniques, Networking and looking at self employment and other opportunities in the current economic climate. Morgan McKinley reviewed students' CV's in advance of the event and gave them feedback on the night. Each of the panel members gave a formal presentation and advice on the common mistakes made by graduates when searching for employment, at the interview stage and negotiating final contracts. A reception was held in the Bistro afterwards where students and staff continued with questions and discussion with the panel in an informal setting.



Catherine Garrett, Global HR Project Manager, Citco Banking Division; Vincent Scanlon, Founder Director at B2B Signs & B2B Print; and Laura Wiltshire and Paddy Fitzgerald of Morgan McKinley Recruitment (Formerly Premier Recruitment).



GOLDSTAR APPROVED EDUCATOR STATUS BY THE ICPA

On the 9th October, an awards ceremony was held by the Institute of Certified Public Accountants in Ireland (ICPA). Pictured on the left is the Director of Education and Training, ICPA, Paul Heaney, with CIT staff members Bernard Vallely CPA Lecturer and Examiner, and Ann Marie Twomey Lecturer and Course Co-ordinator for CPA. Paul presented the Goldstar Approved Educator Status by the ICPA to CIT in recognition of excellence in Accountancy Education Study Support and Facilities.

The **Food Link** Project

CIT students were among 21 students from the EU to avail of the opportunity to travel to Canada for a semester to carry out the work placement element of their course. The Food Link project was designed to provide undergraduate and graduate students with an opportunity to travel internationally and receive education from an international perspective in the area of Food Science and Technology.

The six partner colleges involved in the project committed to engage industry to support the project by accepting exchange students for an internship or work placement. The partner colleges also committed to include students in research projects at their own respective research centres, with students receiving full credit for these placements at their respective home institutions. All students received a whole new education perspective in addition to being immersed in a new culture.

In return, 28 students from the corresponding Canadian colleges studied in one of the three institutions in Europe (CIT, University of Copenhagen and University of Nottingham).

Faculty exchange opportunities were also available to partner colleges. Structured exchanges for specialist teaching staff and administrators contributed in a significant way to the advancement of other objectives of the project, particularly curricula development, student mobility assessment and course evaluation methodology. As an addition to the programme, partners collaborated on developing curricula drawn from each institute to provide training in both classroom and web-based delivery formats to international clientele.

Multilateral co-operation in this highly focused area of higher education and research provided considerable "added value" for each of the participating colleges and support organisations. The project will continue to operate through the on-going collaboration of the six partners and other support agencies involved after the project end date which was September 2010.

Canadian Students get **immersed in Irish Culture**



Melissa Forde and Gillian Reinhard, both students from the Marine Institute, at the Clipper Festival in Cork.

Students from the Marine Institute and Dalhousie University received Irish dancing lessons during their visit to CIT under the Food Link Project.

CIT hosted 19 students for a fortnight in April 2010. Students participated in courses at CIT in the area of Food Science and Technology. During their time they also visited the Old Midleton Distillery, Teagasc and Blackrock Castle Observatory.

Two students from the Marine Institute continued with their studies at CIT and accepted a work term placement with Teagasc in Fermoy where they worked under the supervision of Dr John Hannon. Both students embraced their time on this side of the Atlantic by visiting a number of European cities at the weekends.

The Food Link Project was funded under EU-Canada programme promotes mutual understanding between the people of the European Union and Canada including broader knowledge of their languages, cultures and institutions.

CIT and the **Marine Institute** in St. John's sign MOU



CIT and the Marine Institute (MI) in St. John's, Newfoundland signed a Memorandum of Understanding (MOU) for continued collaboration.

In October 2010, Glenn Blackwood, Director, MI; and Dr Brendan Murphy, President, CIT, signed an MOU for future partnership between the two colleges. Both institutions will work together in the areas of student and staff exchanges, work term opportunities for students, joint education and training programmes, collaborative research and development in technology transfer and international projects.

CIT and MI recognise the mutual benefits that are gained through collaborative efforts related to promoting education, training and applied research. The MOU became effective on the day of signing and will be valid for a period of five years.

*Front Row: Dr Brendan J. Murphy, President, CIT and Glenn Blackwood, Director, MI
Back Row: Carey Bonnell, Head, School of Fisheries, MI; Dr Niall Smith, Head of Research, CIT; Dr Barry O'Connor, Registrar and VP for Academic Affairs, CIT; Dr Deirdre Gilroy, Lecturer, Biological Sciences, CIT; Bill Chislett, Director International Affairs, MI; and Conor Mowlds, Manager, NMCI Services, NMCI.*

GREEN CAMPUS CIT

LEADING THE WAY FORWARD



Green Campus CIT is making great strides in establishing a sustainable campus programme. Student numbers continue to rise and there has been an increase of buildings in use at CIT. The programme is resulting in both economic and environmental benefits, where spends on electricity have significantly reduced this year. A new waste management system has been implemented aimed at waste prevention and improved recycling. The CIT Energy Focus also continues on campus with people asked to Switch off – Plug out electrical equipment when not in use.

WASTE

Green Campus CIT would like to thank everyone with their efforts to separate their waste in the new recycling bins on campus. The Institute is sending less waste to Landfill (26% less) and recovery rates have jumped from 28% to 51% so far this year. The Institute has seen a reduction of almost 4% in overall waste generation despite the increase in student numbers on campus. It is definitely moving in the right direction with the new waste management system introduced.

Recycling bins have been deployed across campus. A three bin system is in place where paper, dry recyclables and general waste can be separated. Around the canteen areas, a separate food waste bin is also provided. The blue bin is provided for paper waste (clean paper, magazines, newsprint etc.). The red bin is provided for dry recyclables (plastic bottles, cans, clean tetra-pak) and the green flip lid bin is provided for general waste (dirty waste, food wrappers, yoghurt pots etc.). The blue and red bin contents are recycled and the general waste is sent to landfill. The separate food waste bins are provided for plate scrapings, bread, fruit, confectionary, tea bags etc. This waste is sent for composting. Glass recycling banks are located at the stairs in the main Concourse.

As part of a food waste reduction programme at the Department of Tourism & Hospitality Studies, cooked food will be sold in fully compostable packaging. The Department is also tracking the waste generated from unused food in practical classes and we will calculate the overall cost of this including disposal costs.

WASTE AWARENESS DAY

The Waste Awareness day, held on the 12th October, went down a treat. The stand was kept busy with students and staff visiting the stand with questions and comments. 218 entries were received for the competition 'guess the weight' of a bale of cardboard on display in the main Concourse. Correct entries were entered into a draw and three lucky winners are listed below. The weight of the bale of cardboard was 75kg.

1st prize (€100) Lisa Goulding
2nd prize (€50) John Organ
3rd prize (€50) Nadia Khalfi

Prizes were sponsored by Greenstar.

WATER

A water usage optimisation plan is currently being drawn up. Various works have taken place across campus to help reduce the water usage. Flow restrictors have been installed on all the taps in the Tourism & Hospitality Building bringing the flow rates back from 32 liters per minute to an average of 7 liters per minute. This activity alone will result in substantial savings in water use.

A waterless urinal product is on trial in the Tourism & Hospitality building as well as in B block (B144). An investigation into sensors for urinals is also being conducted to help reduce the water usage in urinals.

RESOURCE USE

In 2009, CIT used more than 15,000,000 sheets of paper! So far, this year CIT looks like reducing this quantity for 2010. Please remember to only print what you really need and always use both sides of a page.

With the introduction of the new bins at CIT and your efforts in segregating your waste, we will be able to reduce the quantity of bin bags used at CIT. We are trying to reuse the clean bags from the recycling bins. Please make sure you do not put any tea/coffee in the recycling bins.

AWARDS

CIT has received the Gold level Green Hospitality Award for the Tourism & Hospitality Department and also became the very first third level Institution in Ireland to receive the Green Hospitality Award for the Canteen. The Bistro will also become a Green Hospitality member this year. CIT was shortlisted for the SEAI (Sustainable Energy Authority Ireland) sustainable energy awards 2010. Green Campus CIT is funded by the EPA under the Cleaner Greener Production Programme (CGPP).

ENERGY

Electricity usage on campus (on a m² basis) has seen a reduction of more than 8.5% per m² area. Significant savings on electricity spends has meant that the first 9 months of 2010 resulted in more than €268,000 savings compared to the same period in 2009.

CIT's Energy Focus is documenting individual buildings energy usage and also analysing sub metre energy usage. The table on the right indicates the night time energy usage (kWh) from 5pm until 9am the next morning from the Student Centre sub metres.

Night time energy usage for the Student Centre

Sub Metre	kWh 05/06 Oct	kWh 13/14Oct	kWh 19/20 Oct
Barber	0	0	1
Access	6	7	9
Gala	209	226	212
Card shop	4	5	4
AIB	21	25	23
BOI	44	37	34
Bistro	100	100	110

Well done to the barber shop and the card service shop for making great savings over the CIT's Energy Focus: Switch off – Plug out. Keep up the good work – remember it is not just you who likes to switch off at night.

IT SOFTWARE TRIAL

(Energy WatchIT) to help reduce energy usage from computers has been installed in C129 on 22nd October. This software will enhance automated shutdown, hibernation and sleep for PC's at CIT. Reports on savings (both economic and environmental) will be documented during the trial. If we are happy with the results from the trial, this software will be deployed across campus. We hope to make significant savings from this software which will result in economic and emission savings for CIT.



Dr Brendan Murphy, President, CIT with Paul Mulvaney of ESB Ecars.



ELECTRICAL VEHICLE POINT OFFICIAL LAUNCH

CIT became the very first college campus to launch an Electrical Vehicle (EV) point in Ireland on the 18th October. The EV point was formally launched by Dr Brendan Murphy, President, CIT and Paul Mulvaney of ESB Ecars. Representatives from the Buildings & Estates and Green Campus CIT as well as other interested parties attended the launch. This is another first for CIT, who continue to lead the way in environmental management on campus. The EV point is located behind the Tourism & Hospitality building on the road to Leisure World.

ECO-EYE VISIT CIT

On the 20th October, Duncan Stewart and the Eco-eye crew visited the Bishopstown Campus to discuss the Green Campus CIT project and hear about some of the works carried out by the Clean Technology Centre (CTC). The crew was welcomed by Matt Cotterell, Head, School of Mechanical and Process Engineering, who represented Dr Brendan Murphy, CIT president. Tadhg Coakley, (CTC) and the Green Campus Facilitator, Dr Mary Purcell also welcomed the crew to CIT.

Footage of the new initiative in the Department of Tourism & Hospitality Studies to reduce food waste and sell prepared food on campus was taken as well as the new recycling stations located around the campus. The crew was impressed with the works being carried out under the Green Campus Project and both the economic and environmental savings being made. Tadhg Coakley detailed the many projects undertaken by CTC and their impacts and benefits over the past number of years.

FOR MORE INFORMATION

Check out www.greencampuscit.ie for more information and to track its progress. For information or suggestions on Green Campus CIT, please contact the Green Campus Facilitator by E: mary.purcell@cit.ie or T: 021 4335105.



Tadhg Coakley, CTC; Duncan Stewart, Eco-Eye; Matt Cotterell, Head, School of Mechanical and Process Engineering, and Dr Mary Purcell, Green Campus Facilitator.

CIT CANTEEN RECEIVES GREEN HOSPITALITY AWARD

The Canteen has been presented with the Green Hospitality Award (GHA) for its commitment to quality environmental management. This is part of the Green Campus programme headed up by Dr Mary Purcell, Green Campus Facilitator. CIT has now received two Green Hospitality Awards this year, with the Department of Tourism & Hospitality Studies receiving the Gold award in March. The Green Hospitality awards are a voluntary programme involving all areas of environmental management (waste, energy, water, resource use, etc).

The Green Hospitality Award is funded by the EPA under the National Waste Prevention Programme and also the Department of Environment, Heritage and Local Government. The Green Hospitality Award is a Type 1 Eco-Label as defined by the ISO - International Organisation for Standardisation and are recognised as the most successful programmes in Europe.



James Hogan, (GHA); Geraldine O'Sullivan; Douglas Deane; Maurice Bergin, (GHA); Cormac Sheehan; Gráinne Kenefick; and Ber Bevan.

SPIT LIGHTHOUSE MEMORIAL RECONSTRUCTED

Gerry Horan, Marine Engineering lecturer; David Lynch, Lead Welder and engineering students Robin Lawlor, Conor Hurley, Ciaran Harrigan, Daven Glynn, Evan Fox and Tomas Crowley at the NMCI with the replacement model of the Spit Lighthouse. The original model resides in front of the Old Town Hall in Cobh and is a memorial to the Cork Harbour Tragedy of the 12th December, 1942. Five men onboard the harbour pilot boat lost their lives when their vessel became entangled on the propellers of the larger ship they had come to guide to safety. In recent years, the original memorial was damaged and the NMCI carried out refurbishment work and constructed a new model of the lighthouse which was officially unveiled on the 11th December. More NMCI news on page 28.



GROUND BREAKING ASTRONOMY RESEARCHERS MEET IN CIT

CIT hosted the summer VERITAS collaboration conference from 28th June - 1st July. The VERITAS collaboration is involved in the field of ground-based gamma-ray astronomy and is comprised of more than 90 scientists from 20 different institutions in the United States, Canada, Germany, England and Ireland (CIT, GMIT, NUIG and UCD).

VERITAS (Very Energetic Radiation Imaging Telescope Array System) consists of four 12 metre telescopes and is based at the Smithsonian Institution's Whipple observatory in southern Arizona (<http://veritas.sao.arizona.edu>). These telescopes detect very high energy gamma rays which are generated by the most violent physical processes in the Universe. This is the most sensitive such detector in the world and in the last year has made groundbreaking discoveries leading to more than 15 publications in the scientific literature, one of the most recent being in the prestigious journal Nature. VERITAS is a multi-million euro experiment and is funded by the U.S. Department of Energy, the National Science Foundation, the Smithsonian

Institution, the Natural Sciences and Engineering Research Council of Canada, the Particle Physics and Astronomy Research Council of the U.K. and Science Foundation Ireland (through the Research Frontiers Programme).

The conference which had 55 delegates, reviewed the most recent discoveries, planned the observation programme for the next year and discussed the implementation of an upgrade to the instrument to keep it at the forefront of ground-based gamma ray astronomy research. The conference dinner was held at the Castle Bar and Trattoria at CIT's Blackrock Castle Observatory.

Dr Josh Reynolds, Department of Applied Physics and Instrumentation and the Optical and Instrumentation Group at Blackrock Castle Observatory, is an active member of the VERITAS collaboration and one of the Collaborator representatives on VERITAS Executive Committee. Josh was responsible for organising this year's collaboration conference in Cork.

Clean Technology Centre News



CTC has been very busy from June – December 2010, with many new and ongoing projects, both national and international. Here are just a few snippets:

European Energy Saving Awards

CTC and CIT hosted the Irish round of the European Energy Saving Awards, which were presented by the Minister for Enterprise, Trade and Innovation, Batt O’Keeffe, T.D., in the Tourism and Hospitality Building in October. The Bord Gáis sponsored awards are part of the Intelligent Use of Energy at School initiative (IUSES). The Clean Technology Centre coordinates the competition for Ireland under the Intelligent Energy Europe Programme, in association with Sustainable Energy Europe.

Dr Brendan Murphy, President of CIT, welcomed the nine prize-winners and their teachers from seven winning second level schools throughout Ireland, as well as many dignitaries, CIT staff and Governors, and invited guests from the areas of education and energy.

The European Energy Saving Award (EESA) is part of the IUSES project, and recognises schools and students who are enthusiastic and active in bringing about reduced energy consumption and can demonstrate how simple changes can make a difference. The Award comprised three categories: Schools; Individual or Groups of Students; and Videos/ Multimedia (individual and/or group). In all, nine prizes were awarded for 1st, 2nd and 3rd placing in each category. In an excellent and very competitive contest, the students and schools in each grouping showed great understanding and knowledge of energy issues in their schools and homes and have achieved impressive energy savings through a wide range of wholehearted activities. The winning Irish entries then went forward to compete in the European Awards competition, the winners of which were awarded in Trieste Italy in November 2010.

The winners in each category for Ireland were:

Schools Category:

Scoil Mhuire gan Smál, Blarney, Co. Cork.

Students Category:

The students of St. Patrick’s College, (Lacken Cross, Killala, Co. Mayo).

Multimedia Category:

Karimah Gambo (St. Joseph’s College, Lucan, Co. Dublin).

For further details of the IUSES project go to www.iuses.eu

For further information about the Irish implementation of IUSES, and details of the other winners, go to www.ctc-cork.ie



EESA Award winners with Minister O’Keeffe and CTC Staff: Colman McCarthy, Noel Duffy and Tadhg Coakley.



Speakers at the event, from left: Lord Mayor of Cork City, Councillor Michael O’Connell; Noel Duffy, Director, CTC; Dr Brendan Murphy, President, CIT; John Mullins, CEO, Bord Gáis; Batt O’Keeffe, TD Minister for Enterprise, Trade and Innovation; Cllr Jim Daly, Mayor of the County of Cork.



John Mullins, CEO, Bord Gáis with Maireád Jones of Scoil Mhuire gan Smál, Blarney, who won first prize in the Schools Category.

Irish Schools Entry wins European Award

In a further success for the IUSES project implementation in Ireland, CTC was delighted to learn that the Irish entry in the EESA Multimedia Category, by Karimah Gambo from St. Joseph's College Lucan, won the outright European Award, beating off stiff opposition from 13 other countries.

Karimah's entry, a music rap video, called I Can, was very well received by the judges from the 14 countries participating. I Can is a catchy song and the video shows and explains

in simple but memorable ways that energy can be conserved by kids and adults in their homes, schools, workplaces and when travelling. It is especially engaging for the younger generation, using great rhymes and rhythms, and pop up images on the screen.

In winning this European Award, Karimah has shown great understanding of the main energy issues and concerns facing us today. Her talent in providing musical, memorable and easily understandable ways of energy savings and more sustainable behaviour was the main reason for her great success.



Karimah Gambo, Multimedia Category EESA Irish and European Award winner from St. Joseph's College, Lucan, receiving her National Award from Minister O'Keefe.



Poster of rap video I Can, by Karimah Gambo

To see and hear Karimah's winning entry go to www.ctc-cork.ie

CTC Continues to Promotes Food Waste Prevention

As part of CTC's ongoing STOPfoodwaste programme, Mr Batt O Keeffe, TD, Minister for Enterprise, Trade and Innovation, officially opened another Master Composter Site in Mallow, Co. Cork in September 2010. The opening also marks the graduation of 31 Master Composter volunteers who are now available to present talks and host information stands at events around Co. Cork.

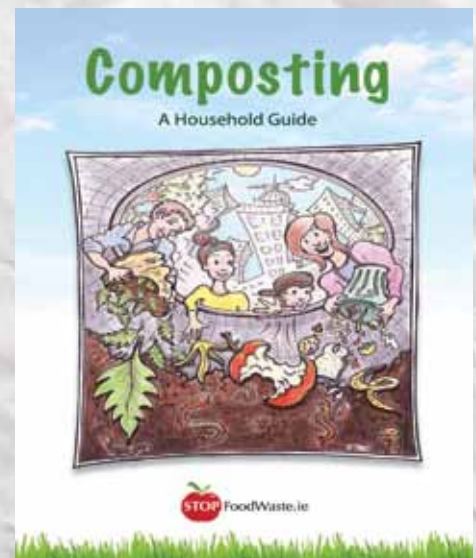
This is one of several sites already developed or underway across the country being run by local Master Composters as part of a national CTC led programme. The pilot of this initiative was held in Frenchpark, Co. Roscommon throughout the month of October 2009 where thirty members from local communities became Ireland's first master composters. Since then, the programme has gone from strength

to strength. Master composters are individuals who have committed some of their time to promoting food waste prevention and composting throughout their local communities.

For further information about the Stopfoodwaste programme and master composters go to www.stopfoodwaste.ie

In another related initiative, CTC (with partners Composting & Recycling Consultants Ireland, the Irish Peatland Conservation Council (IPCC) and Waste Down Consultants) has co-produced a household composting guide that provides an overview of all aspects of home composting.

To download the composting guide, go to www.stopfoodwaste.ie or www.ctc-cork.ie



CTC Produces Greening Events Guide

CTC, with Hospitality Solutions Consulting (HSC), has prepared A Guide to Running Green Meetings and Events for Fáilte Ireland. The comprehensive and attractively produced 52 page guide is intended for any business involved in planning and/or running a meeting, conference or event in Ireland, including conference organisers, venues (including hotels), accommodation providers, catering companies, entertainment/activity providers, audio visual/IT companies, and transport providers.

It provides a simple step-by-step approach to conference organisers, venues (including hotels), accommodation providers, catering companies, entertainment/activity providers, audio visual/IT companies, and transport providers in order to 'green' their businesses.

This guide will greatly enhance the opportunities and supports for sustainable event development in Ireland both for environmentally focused Irish companies and to attract sustainability oriented organisations worldwide to come to Ireland and host their events with minimum environmental impact.

To download the guide, go to www.ctc-cork.ie



Major National Healthcare Programme

CTC is leading a prevention team to work directly with healthcare organisations in the application of prevention tools and techniques developed in the course of previous projects. The Green Healthcare Programme, is a major national initiative, and will, in time, greatly enhance the environmental performance of this sector.

Initially, three hospitals in Cork were included as part of a pilot study in 2009. In the first instance, it was important to engage with hospital management and staff to ensure buy in to the project. This included reviewing with them the significant amount of work already done on energy and water surveys. Separate methodologies were then developed to undertake food waste, clinical waste and mixed residual waste characterisation surveys as well as for water flow surveys.

Since completing the pilot, in 2010 nine more hospitals have enabled waste surveys to be completed across the country. Between the pilot phase and the surveys noted above, almost four thousand bed capacity will have been covered (25% of total national capacity). This will rise to 36% of total when surveys are completed on a further five hospitals who have volunteered for the project. This will bring to 17 the number of hospitals engaged in the first year of the project.

The results of these surveys are being analysed at time of writing but again show great promise to make substantial resource and financial savings. Benchmarks on waste, water and energy consumption per hospital bed capacity will emerge in time from these surveys. This in turn will enable any healthcare organisation to check their resource efficiency performance against national and international norms. Based on experience gained during the project, a resource efficiency toolkit is being developed to include: training materials, information booklets/leaflets, PowerPoint slides, posters and a DVD.

CTC Helps to Green the Wexford Festival Opera 2010



The Clean Technology Centre, through the Green Hospitality Programme, has partnered with Wexford Festival Opera in taking the 2010 Festival 'green'.

Businesses such as: hotels, restaurants, pubs, guesthouses, B&B's, contract caterers, tourist attractions, activities, clubs, golf clubs, leisure centres and spas were encouraged to put environmental issues at the heart of their services. As a result of the initiative, 16 Wexford businesses were certified 'green' at an awards ceremony at the Wexford Opera House in October 2010.

The 16 premises have met with environmental standards set down by the CTC led Green Hospitality Programme (GHP) and €concertive and are leading the way to making Wexford a green destination for visitors and business.

Examples of excellent savings - both monetary and resource efficiency - include the Riverbank Hotel which has cut its water bill by €35,000 per annum through leak detection and improved water efficiency and the Maldron Hotel, Wexford, which has taken measures to cut its waste bill by 50% and has recently reduced water consumption by 40%.

Funded by the Environmental Protection Agency's (EPA) National Waste Prevention Programme, the project has proven extremely successful to-date, with more than 30 businesses around Co. Wexford signed up to the 'Green Aware' programme.

To learn more about Green Wexford Festival Opera 2010 to go to <http://www.wexfordopera.com/green/>

continued on page 62



Presentation of Green Award to Riverside Hotel Wexford as part of the Greening of Wexford Festival Opera. From left: Eamonn Carroll, Wexford Festival Opera; Dr Gerry Byrne, EPA; Colm Campbell and Jeannette Hayden, Riverside Hotel; and James Hogan, Clean Technology Centre.

NMCI News Photo Gallery

On the 25th April, the National Fire and Rescue competition was held in NMCI. Teams were sponsored and the funds raised went to a charity for rebuilding in Haiti. The NMCI team won the competition.



In the centre of the photo is Michelle Delaney, (Captain), BSc (Hons) in Nautical Science; (L - R) Nathan Kirwan, BEng in Marine & Plant Engineering; Hannah Logan, BSc (Hons) in Nautical Science; Paul Cunningham and Tyrone Dwyer, Chief Mate/Masters professional qualification. On the top of the cake is Engineering lecturer Gerry Horan.



Father and son, John and Jamie Ratcliffe, are both studying at NMCI at the same time. Jamie has just started to follow in his Dad's footsteps starting in Year 1 on the BSc in Nautical Science and will become a deck officer in the Merchant Navy. His Dad, John, is attending the Department of Transport Marine Notice 15 course which will lead to qualification as a Chief Mate/Master on a vessel of less than 3000 gross tonnage.



Congratulations to Bill Kavanagh

who was elected as President of the Irish Institute of Master Mariners at their AGM held in the Port of Cork boardroom on the 6th November.

(L - R) Out-going President, Michael McCarthy, Commercial Manager for the Port of Cork Company handing the chain of office to Bill Kavanagh.



The NMCI's sailing club house being delivered and lifted into place. In the photo are Ronan Kenny, student representative, and Noel Barry, Acting Head of Academic Studies, NMCI, who has been very supportive of the sailing club's activities.



On the 28th May, a group of four pilots from Ras Tanura, Saudi Arabia completed their training in the 360° Bridge Simulator. The pilots were delayed coming to Ireland because of the ash cloud.

Also included in the photograph are the lecturers involved in this training course; Eamonn Doyle, Dáire Brunicardi, Roddy Cooke, and Peter Walter.



On the 21st May, a Guard of Honour took place for the Minister for Defence, Mr Tony Kileen, who visited the NMCI to acquaint himself with the Naval training conducted at the college.

NMCI hosts the Nautical Institute AGM

The Nautical Institute is an international body promoting the professional standards of those in charge of seagoing ships of all types, trades and services and the standards of management, regulation and supervision of shipping and marine operations generally. It has world-wide membership with branches in most maritime nations. It also has NGO status at the International Maritime Organisation, the United Nations secretariat concerned with maritime affairs and international regulation for control and protection of the seas.

This year, the Ireland Branch (which includes Northern Ireland) was requested to host the annual general meeting of the Institute. This was enthusiastically agreed to by the branch, particularly as it coincided with the election of the first Irish president of the Institute, Captain James Robinson, DSM, recently retired from the Navy.

In support of the AGM, a seminar, 'Global Standards for Watchkeepers and Bridge Procedures' was arranged to discuss navigational and watch-keeping procedures in modern ships where technology is making huge changes in the traditional ways of conducting ships. This seminar, which took place over two days at the NMCI, was organised with the intention of gaining the most from the collected wisdom of the assembled delegates; four speakers were arranged, an officer from a major cruise ship company, a naval officer, a harbour pilot who also had much experience in modern small-crew ships, and a master mariner who had changed careers and now



commands airliners. It opened with an address of welcome by Dr Brendan Murphy, President, CIT, and was followed by brief welcoming addresses by Captain John Clarence, Head, NMCI, and Commander Martin Counihan, Associate Head, NMCI, and Commandant of the Naval College. The keynote speakers "set the tone" and prompted discussions. The assembled company broke up into working groups which duly delivered their findings at a plenary session.

Thank you to Capt John Clarence, Martin Counihan and all the NMCI staff who did Trojan work to make this seminar a great success.

NMCI Conferring & Award Ceremony ... 17th June

For the first time in the history of the Naval Service and the Defence Forces, a Level 7 (NFQ), Ordinary Degree in Leadership, Management & Naval Studies was awarded to 13 Non-Commissioned Officers in recognition of their completion of the NS Senior NCOs Course and ancillary Modules.

The June graduation ceremony is highly significant in the context of military training and education and is the culmination of a five-year intensive project that has secured external accreditation for the training and education undertaking by all ranks. The Naval Service offers major awards under the National Framework of Qualifications for its training and education programmes.



Colum Stack, BA in Leadership, Management & Naval Studies; Catriona Downing, BSc (Hons) in Nautical Science; and Dr Brendan Murphy, President, CIT.



Kenneth Laurence and Maria O'Callaghan were awarded a BSc in Nautical Science with Dr Brendan Murphy, President, CIT.



PO Michael Quinn was awarded a BA in Leadership, Management & Naval Studies; with daughter Caoimhe.



Michael Harrington, Eamon Dolan and John Nash were awarded a BA in Leadership, Management & Naval Studies.



Engineering graduate Fionán Walsh receives the Betelgeuse award from Michael Kingston (left) and Mario Minehane (right).



Dáire Brunicardi (retired colleague NMCI) receives his parchment, BSc (Honours) in Nautical Science from Dr Brendan Murphy.



Student Dubheasa Ní Cionna who is studying BSc in Nautical Science Year 1, is the recipient of the NavCom Award. Dubheasa is pictured here with her father.



(L – R) Phyl Curtis, widow of Don Curtis, presenting student James Clough, BSc in Nautical Science Year 1, with the Don Curtis Memorial trophy; and Michael McCarthy, Commercial Manager, Port of Cork.



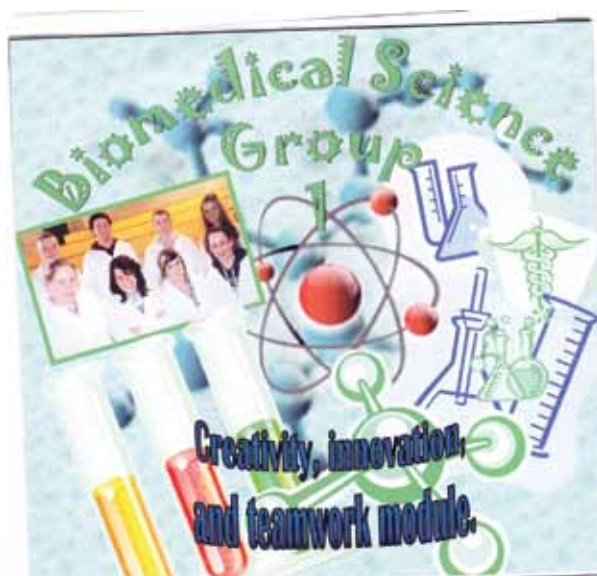
Viv Gough presents student Colin Harrington the Bernard Toft Compass Award. This is the first time this award has been made. Bernard Toft who lectured for 30 years in CIT/NMCI donated this award on his retirement last year.



Engineering graduate Barry Conwell receives the IMarEst award from Lt. Commander Nick Malone, Irish Naval Service.

THINKING OUTSIDE THE BOX;

FOSTERING CREATIVITY IN THE UNDERGRADUATE CLASSROOM



Creativity is often described as thinking “outside the box” but the term is somewhat amorphous as it is open to several possible definitions. Despite a large body of literature exploring ideas of creativity and creative thinking along with associated theories and approaches, relatively little research describes or measures these concepts. Creative thinking, the ability to be innovative and the ability to work as part of a team in the workplace are generic skills which are highly valued by employers. In Biomedical science, graduates often work in state laboratories, research labs or the pharmaceutical industry. An ability to work as part of a team, execute instructions from a team leader, follow through with activities, meet deadlines and communicate well is vital. Although creativity is regarded as an important employability skill, it is a quality which graduates and post graduate students are often perceived as lacking. Development of creativity and team building exercises are often undermined as they are seen as soft skills, often not taken seriously and thus often absent from tertiary education. An ability to encourage creativity in the classroom is desirable and is sometimes perceived as bringing students out of themselves and unleashing a hidden talent. This is not an easy task and students may feel inhibited by shyness or peer pressure. The challenge lies in the development of a classroom environment which is conducive to encouraging creative thought.

Dr Siobhán O’Sullivan has been developing the area of teaching Creativity, Innovation and Teamwork in the undergraduate classroom. She has presented her work on this area and the use of Web 2.0 tools at several national conferences, the recent NAIRTL conference, The Learning Innovation Network Conference hosted by the IOTI, The Irish Learning and Technology Association EdTech (the Irish Learning and Technology Conference) conference, ICT in Education as well as two international conferences Edulearn (International Conference on Education and New Learning Technologies) in 2009 and 2010 and INTED (International Technology, Education and Development Conference) in 2010 where Siobhán presented a total of 6 papers on topics ranging from teaching creativity, use of e portfolios in education to the pedagogical significance of blogging. She was recognised as best speaker in three of her presentations in the area of Use of Virtual Learning Environments in Education and Innovative forms of Teaching and Learning.

This year, Siobhán’s work was recognised on a national level when she was shortlisted for the Jennifer Burke award of the Irish Learning and Technology Association for innovative use of technology in teaching. In her presentation Siobhán showcased use of blogging, wikis, podcasting and vodcasting in teaching Biomedical Science students. She also demonstrated the use of e-portfolios in education practice. Karlin Lillington, in an Irish Times Technology Supplement commented on Siobhán’s work: “From Cork Institute of Technology, Dr Siobhán O’Sullivan is teaching biomedical science students using an extraordinary range of web 2.0 technologies. She brings together blogs, wikis, newsletters, e-portfolios and podcasts, and regularly engages with her students through their blogs. A great aspect of this project is that first-year students are supported by second years, whose blogs and digital projects from the previous year help signpost the way on a complex course.”



Blogs and newsletters created in this module have attracted much attention from Career Guidance providers as they showcase the work students are doing in their courses. In their blogs students document the challenges of working in a team, meeting deadlines and following through on tasks.

Siobhán has just completed a textbook, *Excellence in Biology* (Macmillan), geared towards A level/1st year Biology courses. It is due for publication in 2012.

Siobhán is a lecturer in Biochemistry in the Department of Biological Sciences. She also has a Diploma and 1st Class Honours MA in Teaching and Learning in Higher Education from UCC. She teaches part time with the Teaching and Learning unit in CIT. She also contributes to the IOTI-led Flexible Learning project and the CIT-led REAP project both of which are funded through the HEA’s Strategic Innovation Fund. Siobhán would like to acknowledge the continuous support of Dr Hugh McGlynn, Michael Loftus and Irene Sheridan for her work in this area.



Siobhán was shortlisted for the Jennifer Burke award of the Irish Learning and Technology Association (ILTA) for innovative use of technology in teaching and is pictured here with Morag Munroe, (ILTA); Dr Hugh McGlynn, Head, Biological Sciences, CIT; and Paul Gormley, ILTA.

CIT Extends its International Network to Include Saudi Arabia

Following its participation in an Enterprise Ireland Trade Mission in early November 2010, CIT has now been approved by the authorities of the Kingdom of Saudi Arabia to recruit scholarship-funded students from there.

The trade mission was led by the Minister for Enterprise, Trade and Innovation, Batt O’Keeffe TD, during which he met with the Governor of Saudi Arabia’s Technical Vocational Training Corporation (TVTC), Dr Ali Nasser Al Ghafis, in the Saudi capital, Riyadh.

Congratulating CIT, Minister O’Keeffe said: “This agreement will draw hundreds more Saudi students to Ireland under a well-funded scholarship programme and will build on our strong relationship with Saudi Arabia which considers Ireland among a small number of strategic partners in education. Significantly too, Saudi students could become new ambassadors for Ireland and choose the country for key investments, originating in the Middle-East North-Africa region, which is our fastest-growing emerging market.”

Michael Loftus, Head, Faculty of Engineering & Science, said “Over the next eight years, the TVTC wants to quadruple its number of qualified trainers to 40,000 and raise its number of students in technical/vocational education to 500,000, including 100,000 women. CIT is perfectly positioned to make a significant contribution in this context as the quality of our personnel and award-winning approach align strongly with the current needs of the Saudi economy. The achievement of this recognition is a significant event for CIT as we have sought continuously to achieve this outcome over the past year.”

The chief executive of Enterprise Ireland, Frank Ryan, said “This announcement testifies to the Saudi Government’s satisfaction with the standard and quality of the education delivered by Irish Institutes of Technology. The agreement will also provide a boost to the Cork region and the other regional economies in which the Institutes of Technology are based. International education is a sector that offers huge potential for growing Irish services’ exports and Saudi Arabia is a key market that we have targeted in recent years. This further strengthens our case as we continue to market Irish higher education abroad, not just in the Middle East but in the US, China and other markets with growth potential.”

About 800 Saudis are studying in Ireland and it is estimated they are worth some €20 million to the economy annually.

CIT was represented on the mission by Michael Loftus, Head, Faculty of Engineering and Science, and John Twohig, Head, Centre of Craft Studies. During the visit, the CIT delegation participated in meetings with representatives of the Ministry of Higher Education, the TVTC, various organisations offering services for local representation and Saudi Aramco.

From the information provided at these meetings, it is evident that the approval gained for CIT during the mission has the potential to lead to significant opportunities for the Institute over time. Some of the more relevant points noted during the visit are set out below:

- Saudi needs to further develop its own educational infrastructure as 57% of its population (a total of approx. 25M people, including approx. 7M foreign workers) is under the age of 19;
- Saudi needs significant numbers of its students and technical trainers to be trained abroad in order to make it more self-sufficient in this context in the longer term;
- Saudi will also require more international providers to operate aspects of its educational infrastructure (management, quality and delivery processes in particular).

John Twohig noted that “With demand for places on apprenticeship courses in Ireland projected to reduce significantly over coming years, the achievement of this agreement provides us with the opportunity to build relationships with organisations in Saudi Arabia that will have demands in areas in which we are likely to have capacity. Given the high quality of our staff and facilities in these areas, we have every chance of attracting a significant number of these students to CIT.”

INDIA, CHINA AND THE USA

Clair Nadkar, one of CIT’s driving forces in the internationalisation arena, noted that “This development with Saudi adds to a significant number of positive announcements on the internationalisation front in recent times.”

Over the past two years, the developments summarised below have all added to CIT’s profile in this context:

- CIT’s agreement with the University of Pune (UoP), India, was extended to cover joint PhD supervision and joint development of Taught Masters’ programmes during the visit of the UoP Vice-Chancellor (September 2010);
- An agreement was signed with Vishwakarma Institute of Technology (VIT), India, to provide a pathway into CIT programmes for VIT students of electronics and applied physics and instrumentation (September 2010);
- A MoU was signed with Jawaharlal Nehru Technological University Hyderabad (JNTUH), India, during the visit of the JNTUH Vice-Chancellor along with a delegation of senior academics, with a view to operating joint Taught Masters’ programmes in software development and embedded systems (June 2010);
- A MoU was signed with the Indian Institute of Technology, Delhi, with a view to developing mutually beneficial research activity (February 2010);
- Links have been established with a number of Chinese universities and discussions re: the establishment of pathways into CIT programmes in the area of software development are well advanced; MoUs paving the way for these developments were signed with Dalian Polytechnic University (June 2010) and with Wuhan University of Science and Technology (September 2010);
- CIT has participated in the Irish Homecoming Study Programme (<http://irelandhsp.com/>), organised by Institutes of Technology Ireland and aimed at providing cost-effective education for the children of the global Irish diaspora, with the Institute’s first student under this programme being recruited recently;
- CIT’s application for approval for applicants from the US to be supported through the Federal Aid Programme of the US government is at an advanced stage.

While many international students come to study in CIT, Michael Loftus states that “I would like to see more CIT students take advantage of our new international relationships to study abroad. India and China, in particular, are major forces in the world today and likely to be even more significant in the future. Students who gain experience of these cultures and economies at an early stage in their careers will likely have many more options open to them in the future than those who take a less international view of their lives.”



Frank Ryan, CEO, Enterprise Ireland; Michael Loftus, CIT, Dr Ali Nasser Al Ghafis, Governor, TVTC; Minister Batt O’Keeffe; and John Twohig, CIT.



CIT BREAKS NEW GROUND IN INDIA

In a major development CIT has engaged with the University of Pune (UoP) to extend significantly the extent of its international engagement in India.

In a major development CIT has engaged with the University of Pune (UoP) to extend significantly the extent of its international engagement in India. A formal agreement has now been signed between CIT and UoP to participate in joint PhD supervision and joint development of programmes, at levels up to, and including, taught masters and structured PhD.

Michael Loftus, Head, Faculty of Engineering and Science, CIT, commented that "The signing of these agreements represents the culmination of the efforts of CIT and UoP, over a number of years, to build an international relationship of strategic value to both institutions. This extension of our cooperation provides a platform for our students, staff and industry stakeholders to participate in an initiative, which integrates education, research and innovation in a truly international context. India's importance in global affairs is rising continuously and CIT's stakeholders now have the opportunity to engage with some of India's leading institutions in a very meaningful way. This development aligns fully with the 2006 Ireland-India Government-to-Government Agreement on Scientific and Technological Co-operation and the related 2009 Programme of Cooperation on Science and Technology."

This initiative has been led on the Indian side by the Vice-Chancellor of UoP, Dr Raghunath Shevgaonkar, who travelled to visit CIT with Dr Vasudha Garde, Director, International Centre at UoP. As part of an intensive schedule for this visit, Dr Shevgaonkar reviewed at first hand CIT's educational facilities, research centres, business incubation hub and innovation ecosystem infrastructure. He observed "UoP and CIT have complementary strengths in their respective approaches to research, innovation, teaching and learning. Through the extension of our cooperation, we hope to build an innovation ecosystem that is truly international in nature and fully aligned with the development needs of India and Ireland."



Front row: Dr Raghunath Shevgaonkar, Vice-Chancellor, UoP; Dr Brendan Murphy, President, CIT; signing the addendum to the 2008 MoU between CIT and UoP. Back row: Mr Billy Kelleher, Minister for Trade and Commerce; and His Excellency P.S. Raghavan, Ambassador of India to Ireland.



Head of Research at CIT, Dr Niall Smith, said "UoP is recognised globally as a leading university. It is well known for its leadership in the internationalisation of education and for its progressive educational policies and visionary outlook. We are very satisfied with the quality of our engagement with UoP thus far and we look forward to creating new opportunities for both CIT and UoP in the future. CIT has continuously refined its integrated research and innovation strategy over recent years and is now recognised as a leading innovation hub, as evidenced by the international innovation and entrepreneurship awards won by its students and the recognition it has been accorded within the EU for its support for high potential start-up businesses. The signing of these agreements will add to our capacity to internationalise further what we have already achieved."

The extension of the cooperation was marked by the formal signing of an addendum to the 2008 Memorandum of Understanding between the two institutions. The signing ceremony was witnessed by His Excellency P.S. Raghavan, Ambassador of India to Ireland, and Mr Billy Kelleher, Minister for Trade and Commerce. Also in attendance was Mr Prashant Shukla, Chairman of the Ireland India Council, Mr Brendan O'Regan, CEO of Zenith Technologies (strong supporters of this initiative) and a number of invited guests.

The University of Pune has 433 affiliate colleges and more than 300 recognised research institutions under its jurisdiction. The student population of the University and affiliate colleges and institutions is around 650,000. The University itself has only postgraduate students, numbered at around 5,000.

NEW LECTURING STAFF IN THE DEPARTMENT OF BIOLOGICAL SCIENCES

DRS ROSEMARIE REA AND BRIGID LUCEY



Dr Rosemarie Rea joined the lecturing staff in September having transferred from Schering Plough, Brinny. Her main role for 5 years there was as a technical specialist, and her responsibilities included providing technical support to fermentation, purification and finished product processes, as well as validation and maintenance of working cell banks. Apart from her lecturing role, her main focus will be to promote the research capabilities of CIT and build partnerships with industry across the biotechnology sector. Dr Rea is a former Biology student of CIT, a first class honours graduate in Biochemistry (UCC) and the recipient of a PhD from the Department of Microbiology (UCC).



Dr Brigid Lucey has a long and successful association with the Department of Microbiology at Cork University Hospital, where she was Head of Molecular Diagnostics and Research. She has collaborated with CIT and other institutions on a number of research projects and is author of more than 20 scientific papers and book chapters. Her research interests include many aspects of medical microbiology and epidemiology. Additionally, she has lectured part-time on the Biomedical Science course over a number of years, to undergraduates and Master's degree students. Dr Lucey received her FIMLS in 1993 and attained the award of PhD in 2002.

CONGRATULATIONS to Dr Sharon Murphy

Interdisciplinary Research between the Departments of Manufacturing, Biomedical and Facilities Engineering and Biological Sciences; Dr Sharon Murphy, First PhD graduate from Medical Engineering Design and Research Centre (MEDIC).

Dr Sharon Murphy received her PhD from the Department of Manufacturing, Biomedical and Facilities Engineering. Sharon is the first PhD graduate from the Department since its formation. She is also the first PhD graduate from the Medical Engineering Design and Innovation Centre (MEDIC).

Congratulations to Sharon and her family on a wonderful achievement. Congratulations also to her supervisor Dr Daniel Boyd (previously of the Department of Manufacturing, Biomedical and Facilities Engineering, now of Dalhousie University, Canada) and to co-supervisors Dr Helen O' Shea, Department of Biological Sciences and Dr Keith Bryan, Department of Manufacturing, Biomedical and Facilities Engineering.



Dr Helen O'Shea with Dr Sharon Murphy who was awarded a PhD in Biomedical Engineering & Biological Science.



(L - R) Dr Marine Henry, Dr Pierre Douarre, Dr Jim O'Mahony (PhD supervisor), and Dr James Carroll who were awarded PhDs from the Department of Biological Sciences

DR OLIVIA CASHMAN'S PHD RESEARCH



Dr Olivia Cashman is pictured receiving her parchment with Dr Hugh McGlynn, Dr Helen O'Shea (supervisor), Dr Brendan Murphy, Dr Barry O'Connor, and Michael Loftus.

Olivia, under the guidance of her PhD supervisor Dr Helen O'Shea undertook an extensive study of several important viruses causing Acute Gastroenteritis in humans and animals in Southern Ireland.

Viruses characterised during this study included rotavirus, adenovirus, and the newly identified gastrointestinal virus, human bocavirus, which was identified for the first time in Ireland during this study.

Olivia also refined a technique to isolate viruses from foodstuffs using magnetic capture beads on an automated capture system. This technique has the potential to be very beneficial to the food industry.

Summary of Dr Olivia Cashman's PhD Research

This study reports the analysis of several important viruses causing Acute Gastroenteritis in humans and animals in Southern Ireland. The project involved a 3 year collection of

AGE viruses from hospitals in the Cork and Waterford area and Cork regional veterinary laboratory (from 2006-2009). Viruses characterised during this study included rotavirus, adenovirus type 41 (Figure 1), and the newly identified gastrointestinal virus, human bocavirus, which was identified for the first time in Ireland during this study.

Rotaviruses are also important as regards reassortment between humans and animals, so data on bovines is critical for a better understanding of this complex virus, and will provide useful information regarding vaccination.

Olivia also refined a technique to isolate viruses from foodstuffs using magnetic capture beads on an automated capture system [Pathatrix]. This technique has the potential to be very useful in the food industry.

Euro - Vision: Microbes & Money

Poor hygiene practice results in the transfer of dangerous pathogens to everyday notes and coins, and despite the fact that the euro currency is in existence for over 8 years, no studies have been done on how long pathogens will persist on our cash. Second year postgraduate student and BIO-EXPLORE researcher Emma Gabriel recently received national press coverage for her work which uses bio-luminescent technology to track the persistence of dangerous microbes on euro notes and coins.

The specially adapted pathogen (which is a close relative of MRSA) used in the study is designed to glow or luminesce when it is viable. In simple terms, this means that if it glows it is dangerous or infectious. Alternatively, when the light fades the pathogen is no longer viable. This "lights on/lights off" method is a clever way to monitor how long this dangerous organism can survive and has allowed Emma to visualise and track its persistence on everyday notes and coins over time.

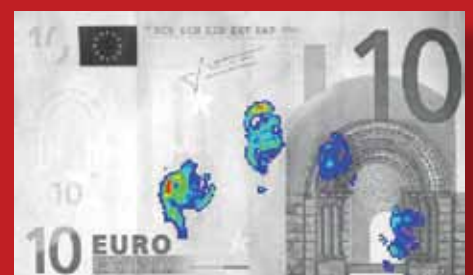
This research at the Department of Biological Sciences is the first time luminescent bacteria have been used in such a study and although still ongoing, has produced some interesting results. When the luminescent organisms are transferred to the notes and coins using an

aerosolised spray (similar to a sneeze) light can be detected up to 3 weeks afterwards which means the bacterial cells are still viable and infectious. This means that every hand, cash register, wallet or purse which encounters the money within the 3 week period could act as a further carrier of disease.

Bacteria such as the one used in this study can cause relatively trivial conditions such as boils, abscesses or food poisoning like symptoms. However, in certain instances they can infect the blood stream causing serious, debilitating and in some cases life threatening conditions such as endocarditis, osteomyelitis and pneumonia. Prevention is key. This study demonstrates visually and convincingly the need for maintaining and improving good hygiene practices especially in high risk

environments such as hospitals and food establishments. Effective hand washing and or the use of sanitising gels are becoming increasingly essential in halting the spread of pathogenic disease causing bacteria especially after handling communal items or surfaces.

This research study is co-ordinated and managed by Dr Jim O'Mahony and Dr Aidan Coffey who are principal investigators at the BIO-EXPLORE research group, CIT. The main remit of the group is to apply their diagnostic expertise to hospital and food borne pathogens. BIO-EXPLORE is also leading a number of related programmes which focus on the identification and characterisation of novel bioactive molecules from plants and microbes. For more information contact jim.omahony@cit.ie



First Entrepreneur in Residence

Kieran Moynihan, a dynamic and experienced entrepreneur and executive with an outstanding track record in the technology sector, took up the role as Entrepreneur in Residence last September and his appointment marks a significant milestone in terms of CIT's Entrepreneurship and Innovation activity and further strengthens CIT's commitment to innovation.

Kieran is based at the Rubicon Centre and on the main campus and is available to undergraduates, post grads, staff and CIT Enterprise Development Programmes. Central to the role will be further raising the awareness of entrepreneurship in general across CIT; identifying key market and technology trends and areas which are receiving substantial investment financing, as well as a series of Guest Lectures to undergraduates. Kieran co-founded Comnitel, a telecoms software company in 1999 and led the company as CEO from initial start-up through a €30million series of fundraising with leading international venture capitalists. After completing the CIT led Genesis Enterprise Programme in 1999/2000, Comnitel merged with Metrica and WatchMark to form Vallent, a 450 person global company with annual revenues of approximately \$65million.

From 2003 – 2007, Kieran was Chief Technology Officer for Vallent, driving the company's product and market strategy up to the acquisition of the company by IBM in 2007. He then took on the role of Vice President and CTO for Telecoms for the IBM Tivoli division and has also been a key strategist and visionary for IBM's overall telecoms business worldwide. He has extensive mergers and acquisitions (M&A) experience both on the acquirer and acquired side. Now working as a management consultant specialising in providing support to early-stage and mid-size companies in the area of company strategy, go-to-market, fundraising, executive coaching, M&A and exit strategies, Kieran said that he was "honoured and excited" to take on his new role to help driving entrepreneurship at CIT and the broader region.

"We are at a pivotal stage in driving our recovery in Ireland and indigenous start-ups will be a fundamental factor of our future success. The leveraging by CIT of the entrepreneurship-in-residence model, which has been highly successful in the USA, is very complementary to the vision CIT has demonstrated in its partnership with Enterprise Ireland in the highly successful Genesis start-up programme. I am very passionate about inspiring strong growth in entrepreneurship across the students and staff at CIT. I have a very hands-on approach and want to make this very practical – key areas will be the support of the overall commercialisation process in CIT including reviewing current commercialisation and patent activity as well as providing a friendly and accessible sounding board for students and staff to test start-up business ideas".

CIT President, Dr Brendan Murphy, warmly welcomed the appointment of Kieran Moynihan as CIT's Entrepreneur in Residence.

"This appointment underlines the commitment of the Institute to encourage the overall level of entrepreneurship in CIT across students, staff, and our enterprise development programme activity. By embedding a successful entrepreneur on campus, CIT will benefit from his knowledge and experience and he will provide a role model for staff and students to start their own businesses.

Kieran has had a very impressive career to date – he is a dynamic, experienced entrepreneur with an outstanding track record over his 19-year career in technology businesses. I know that the wider economy in Cork will benefit from Kieran's drive and determination to raise the bar in terms of entrepreneurship, both within CIT and in the region generally. We expect him to push the boundaries and challenge existing thinking in CIT and among companies in the Rubicon Centre.

The Cork Chamber of Commerce, Enterprise Ireland and Cork City and County Enterprise Boards have expressed their strong support for this initiative. I know that both Kieran and CIT look forward to working with them to drive enterprise development in the region. Kieran will be a huge asset and we are all looking forward to working with him."

CIT has consistently striven to put entrepreneurship at the forefront through its support for events such as the CIT Prize for Innovation, sponsored by the Cork County and City Enterprise Boards which has a prize fund of €10,000 (see back cover).

The Genesis Enterprise Programme, headquartered at the Rubicon Centre within CIT, was runner-up in the "Promoting the Entrepreneurial Spirit" category in the European Enterprise Awards in Madrid. Now in its fourteenth year, Genesis is a 12 month rapid incubation programme to provide support to entrepreneurs establishing knowledge based start-ups in the South West region of Ireland through business training, coaching, mentoring, facilities and peer learning. Kieran was presented with the First Genesis Alumni award in 2008 on the occasion of the 10th anniversary of the programme.



Dr Brendan Murphy, President, CIT; Kieran Moynihan, Entrepreneur in Residence, CIT; Carole O'Leary, Industrial Liaison Manager, CIT; Ger O'Mahoney, President, Cork Chamber; and Michael Delaney, Vice President for Development, CIT.

Rubicon Expands ...

On 22nd October, the extension to the Rubicon Centre was officially opened by the Taoiseach Brian Cowen. The extension brings the total CIT incubation footprint to 3,000m². Speaking at the opening the Taoiseach said: "It is where people of enterprise and talent from this city, through graduate programmes coming out of the institutes and universities, are creating the jobs and companies of the future that will help this country create jobs and wealth again."

The Rubicon Centre already provides incubation space and enterprise development supports to 44 knowledge-based companies employing 185 people. Space in the extension has already been assigned to new entrepreneurs in at least six new start-ups, which will bring the total number employed at the centre to more than 220.

Companies based at the Rubicon work in areas such as ICT, international traded services, and new forms of media, energy, environment and biotechnology and many are focused on European and US markets. The extension was jointly funded by CIT, Enterprise Ireland and AIB.

The Rubicon Centre acts as a hub in the region providing supports to start-up and existing companies who wish to grow, and it is part of an "entrepreneurial ecosystem" at CIT. This ecosystem includes the Genesis, Enterprise Start and Discovery Zone programmes which help entrepreneurs at different stages of their business development – from initial business concept to raising venture capital and sale. The use of mentors and the wider business community has allowed the Rubicon to mobilise supports when required. For example when companies such as Motorola, Pfizer, Harris Semiconductor were closing or downsizing, the Rubicon ran a number of Enterprise Start Programmes that has resulted in many choosing starting a new business over redundancy, unemployment, or seeking employment with another multi-national.

The Rubicon and its clients have benefited from the investment in research in the Institute and in particular the NIMBUS research centre which is adjacent to the Rubicon and the 3 Applied Research Centres on campus - TEC, CAPP and MEDIC. Many of the Rubicon client companies use the resources of these Centres to develop their products and to provide technical support.



Dr Brendan Murphy, President, CIT; An Taoiseach Brian Cowen TD; and the Rubicon team.



Michael Delaney, VP for Development, CIT; Batt O'Keeffe TD, Minister for Enterprise, Trade & Innovation; Micheál Martin TD, Minister for Foreign Affairs; An Taoiseach Brian Cowen TD; Dr Brendan Murphy, President, CIT; and Cllr Michael O'Connell, Cork City Lord Mayor; at the official opening of the Rubicon Centre Extension.

Discovery Zone Programme



The Discovery Zone is a new initiative in the Rubicon Centre that has recently seen its first group of participants complete the programme. The programme is designed to assist experienced professionals who may find themselves at a time in their careers where they want to develop new ideas, start a business or alternatively want to explore ways of using their skills in exploiting other commercial opportunities through partnership with other entrepreneurs or academic institutions.

Immersed in this twelve-week programme, participants explored a number of key topics from idea generation to routes to commercialisation. The programme provided participants with a better understanding and appreciation of a wide range of issues including the following:

- How commercial ideas are generated
- Testing the commercial viability of new ideas – what are the key assumptions about the idea that need to be tested and verified?
- Routes to commercialisation - new start-up, licensing or joint venture?
- Practical guidance from individuals on how they successfully change from manager to entrepreneur
- Going from a good idea to developing a worthwhile business opportunity

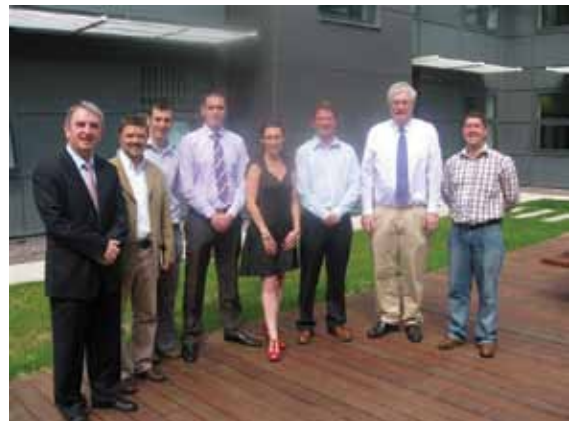
The programme was full-time over 12 weeks and candidates were selected by means of an interview. The participants were based in the Rubicon Centre where they received guidance individually and in groups to assist in progressing their ideas. During the 12 week programme the participants completed a feasibility study on their business idea.

The Programme Manager, Joe Kelleher, was a resource for the participants to help them progress their ideas. In addition, participants had access to the expertise of the Rubicon staff, CIT researchers and the CIT Technology Transfer Office. Each project was allocated the services of an Enterprise Ireland mentor who provided specific guidance to participants in developing their ideas.

At the end of the programme each of the participants had to pitch their business idea. This pitch was to the attendees of a coffee morning who attended a fundraiser for the Care & Share charity and was held in the courtyard between the Rubicon Centre and the NIMBUS research centre. The programme was funded by the Rubicon Centre, Cork County Council, CIT's REAP Project (SIF) and Enterprise Ireland and the recruitment for a second programme is currently underway. For further details please contact Paul Healy, Rubicon Centre Manager, T: 021 4928901 or E: paul.healy@rubiconcentre.ie

"The discovery programme provided us with many new tools and techniques to help us evaluate whether our ideas could become commercial businesses without spending lots of money to find out"
- Bryan Jackson, Discovery Zone Participant.

"The Discovery programme provided an excellent environment by grouping like-minded professional individuals and then providing them with fundamental tools that enabled them to take ideas positively along the path towards commercialisation"
- David Buckley, Discovery Zone Participant.



Joe Kelleher, Programme Manager with the Discovery Zone participants.

Visit of Eminent Scientist from Roslin Institute, UK



Dr Sunil Nandi, a Research Scientist at the Division of Developmental Biology at the world famous Roslin Institute, visited the laboratory of Dr Helen O'Shea in March 24-26, 2010. Dr Nandi was very impressed with the Research Group and the facilities in the Department of Biological Sciences. His research project involves investigation of somatic identity in chickens and his group has recently published a ground-breaking paper in *Nature*.

*Dr Sunil Nandi, Roslin Institute,
with Dr Helen O'Shea in CIT's Cell Biology Laboratory.*

Careers Fair 2010

The annual Careers Fair, organised by the Careers and Counselling Service took place on 5th October in the Institute's Nexus Centre. The event featured up to 40 organisations.

These included major national and international companies recruiting suitable graduates and work placement students. A number of local firms attended in addition to a number of volunteer organisations seeking to encourage student involvement.

Over 1,500 students attended the event, with companies representing sectors such as IT, Science, Engineering, Finance, Retail and Construction. Exhibitors included Abbott Ireland, Stryker, KPMG, Novartis, Dairygold, Kingspan and the Defence Forces. The presence of a number of voluntary organisations such as Barretstown, The Irish Cancer Society and RehabCare also broadened the scope of the event for all students.

The Careers Fair provided valuable information about career opportunities after college to final year and postgraduate students in particular. It was a great opportunity for students to speak to employers directly and to find out more about employment opportunities, application procedures, closing dates and interview processes both in Ireland and abroad.

Whilst the jobs market is certainly contracting, it hasn't disappeared altogether. Companies are still hiring and graduates are finding jobs. While it is more difficult than it used to be, we continually encourage

students to put time and effort into career planning with a view to maximising their chances of success.

In the current climate the Careers Fair reinforced the very positive message for our students that they are highly regarded and sought after within the competitive graduate recruitment arena. Employers also remarked on how focused and prepared students were, having completed research on companies before approaching them on the day and subsequently asking relevant and specific questions about career opportunities. Companies commended the

hospitality provided by CIT throughout the day and with that, many expressed their desire to return to next year's event.

While the Careers Fair is organised and run by the staff of the Careers and Counselling Service it would not be possible without the assistance and support of several CIT departments and staff members. It wishes to particularly acknowledge the support from Frank Hanley, Student Centre Manager; the IT support staff; Michael Noonan and Will Hegarty, Buildings & Estates Office; the caretakers; and Geraldine O'Sullivan, Canteen.



Access Service Events

Primary School Summer Programme – 250 children came to CIT over 5 days



Pupils from Holy Cross Primary, Mahon

A joint initiative between CIT Access Service, Junior Achievement and Bank of New York Mellon took place in June. Ten linked Primary schools participated on the programme. The programme provided 5th and 6th class students and their parents with an opportunity to visit a third level campus. For many, this was the first time that these children visited a third level campus. Each student group was given the opportunity to get involved in hands on activities which allowed them to expand their horizons. The

parents also did the very same activity. Through-out the sessions, the message of the importance of education was embedded.

Deirdre Creedon, Access Officer, states that "Parental involvement and support is crucial to the success of students. CIT Access Service, through its links with the Home School Community Liaison Officers, has been bringing in parents groups to the Bishopstown campus for many years. The visits provided parents with an opportunity

to ask questions, see where their sons / daughters may wish to study, meet some of the lecturers, etc. Linking with the parents of young children (5th, 6th class) can sow the seed."

The programme was financially supported by Bank of New York Mellon. This is the second Access initiative that Bank of New York has sponsored in CIT. Mr Len Dowling, Vice President, Global Operations, BNY Mellon, explains that "BNY responds to the needs of communities by supporting organisations and activities that advance the quality of life where our employees work, live and do business. Working with local groups in our communities is a cornerstone of BNY Mellon's philanthropic philosophy. Working with non-profit partners, local agencies and our global corporate neighbours, we invest in initiatives that make our communities better places to live and work."

The children and their parents took part in science and art sessions. Staff from BNY Mellon volunteered their time to work with the children also and using material designed by Junior Achievement, they talked to the children about success and their futures.

Access Service and the Department of Mathematics join forces!

This year, the Access Service and the Department of Mathematics joined forces to collaborate on a couple of very innovative initiatives.

The first was an event to mark Maths Week Ireland. Maths Week Ireland is co-ordinated each year by Calmast at Waterford Institute of Technology. Maths Week Ireland is a partnership of universities, institutes and groups working together to promote awareness, appreciation and understanding of mathematics to all. Deirdre Creedon, Access Officer and Michael Brennan, CIT Maths Lecturer, organised an event for senior cycle pupils from access linked schools on the 13th October. Guest Lecturer Francisco Gomez-Martin delivered the following lecture.

Musical Rhythms and the Greatest Common Divisor

In the African and Cuban music traditions, the bembé rhythm is very popular. It is played on bells and appears in many styles. On a separate matter, finding the greatest common divisor (g.c.d.) of two numbers is easy. We learnt in primary school that it simply consists of listing the divisors of the two numbers and pick their greatest common divisor. What do the bembé rhythm and the g.c.d. of two numbers have in common? They are related by Euclid's algorithm, a very old and simple method to compute the g.c.d. Francisco examined with the participants the details of that connection, which are deeper than expected. Other connections between Mathematics and Music were also examined. Following the lecture, Dr David Flannery, Head, Department of Mathematics, delivered a fun maths quiz for participants. The young people loved this interactive session, which explored maths in every day life.



Dr David Flannery, Head, Department of Mathematics; Dr Francisco Gomez-Martin, visiting lecturer; and Deirdre Creedon, Access Officer.

Maths Preparatory Programme for Mature Students

For some mature students, returning to education, they can be a little daunted by the concept of studying maths. It can be a subject which causes concern, as they may not have studied maths in 10, 20 or even 30 years. Over the summer the Access Service approached the Learning Support Centre to organise a preparatory maths programme for mature students. The aim of the workshop was to give participants a gentle introduction to maths prior to the

commencement of their programme of study and to take any fear of the subject away. Participants studied Algebra, Statistics and Probability, Functions, Trigonometry, and Calculus.

Maretta Brennan, Lecturer, delivered the workshops for the Access Service. Maretta feels that the workshops were of great benefit to the students in that they "increased student confidence in preparation for the new academic year, gave students the opportunity to realise that it is okay to ask for help, exposed students to the 'CIT Maths Online' and provided an opportunity to meet mature students registered on the same course.

The topics included in the workshop were relevant to a vast majority of first year mature students across many disciplines - Science, Engineering, Building, Architecture, Business, Statistics and Manufacturing."

Sinéad O'Neill, Mature Student Project Officer with the Access Service and organiser of the event said that the pilot was a great success and that the feedback from students was excellent. "The collaboration between the Access Service, the Learning Support Centre and the Maths Department was very positive and I hope that this can be further developed in the future".

Better Options Event 2010

Hosted by UCC, a one day event was held for students with specific learning difficulties and/or disabilities to access information on higher education in Ireland. Presentations were given on the Disability Access Route to Education (DARE) and students highlighted their own personal stories of applying to and attending third level college. A CIT student spoke about her own personal experiences of what it was like being a deaf student accessing third level education and the supports she avails of through the Disability Support Service in CIT. Ruth Murphy (Disability Facilitation Administrator) and Laura O'Rourke (Disability Support Officer) both attended the event to provide information on the service in CIT to potential students.



Pathways to Education

Tracking Students with Disabilities across Higher Education Institutions



Mary O'Grady, UCC; Denis Staunton, UCC; Ann Heelan, AHEAD; Laura O'Rourke, CIT; and Martin Flynn, Pathways to Education Coordinator.

A unique and interesting report was launched which was commissioned by Pathways to Education, which is a joint access initiative of CIT and UCC, and funded under the Strategic Innovation Fund – Cycle 2. The research was carried out under the guidance and support of the disability services in both institutions.

The report titled "Students with Disabilities Tracking Report – 2005 Intake. An analysis of their progression, retention and success

through Higher Education Institutions" investigated the access, retention and success rates of students with disabilities across Ireland. It was launched by Ann Heelan, Executive Director, Association of Higher Education Access & Disability (AHEAD), who highlighted the success of students with disabilities in their third level studies.

The research is the first evidence based research relating to the success, retention

and completion of students with disabilities across a number of Higher Education Institutes in any one academic year, in this case the 2005 intake and involved nine institutions. The data provides an interesting insight into the activity of students with disabilities during their studies at higher level.

Mary O'Grady, Disability Support Officer and Head of Disability Support Service, UCC commented "This report will prove to be a valuable resource to the educational sector in addressing the challenges of increasing the access and participation of students with disabilities and specific learning difficulties in higher education in the future."

Echoing these sentiments, Laura O'Rourke, Disability Support Officer and Head of Disability Support Service, CIT commented that "This report also serves to educate and create awareness amongst academic staff as well as students, and so it is with great pleasure that CIT has become a part of this research project and welcomes the findings."

For further details, please visit www.pathwayscork.ie

Access Learning Support Service

The Disability Support Service is pleased to announce that the Access Learning Support Service officially opened on the 11th October. This service is only for students who are registered with the Disability Support Office in the Access Service (please see Laura O'Rourke, Disability Support Officer for details).

The aim of the service is to provide one to one and/or group supports to students with learning difficulties and a range of other disabilities regarding their assignments, reports and research for their course. The tutors in the Access Learning Support Service will be in a position to assist students to proof read, edit and organise the work they are required to have done for their course. A variety of workshops will be held during the academic year for students who are registered with the Disability Support Service.

For details of training, seminars and workshops, visit www.cit.ie

Mature Student Orientation Event

The appointment of a full time Mature Student Officer in September 2009 has allowed for the development of stronger supports for Mature Students at a pre-entry, entry and post entry level. For the first time this year, two designated Orientation Events were delivered to incoming Mature Students over the period of a week. These programmes aimed to assist Mature Students with the transition into CIT and to prepare them for the academic content of their respective courses. The programmes were specifically targeted at Mature Students entering CIT for the first time.

Science for Life

Science for Life ran two science competitions recently. These competitions were aimed at junior cycle and senior cycle students. The competition entries entailed an essay of 500 words or more. The junior cycle students' topic was 'A day in the life of a Scientist' while the senior cycle topic was 'Scientific discoveries that revolutionised modern society' The successful senior cycle student won an iPod, while the successful junior cycle student won a Nintendo DS.

Tim Kerins, Physics teacher, Deerpark CBS; Deerpark Leaving Certificate Physics Students; Dr Sharon Lawton, CIT Science for Life Officer; Bryan Condon, senior cycle competition winner; and Aidan McNally, Principal, Deerpark CBS.

Both programmes proved to be very successful with high participation rates and very positive feedback from students. Over 100 students attended the Orientation Programme and 38 students participated in the Preparatory Maths Programme. It is evident that Orientation Programmes can serve as a foundation for college success. For students who attend orientation programmes surviving higher education can be a lot easier, and can prevent many potential problems. Providing such supports to Mature Students will potentially have a significant effect on performance levels and retention rates of these students.



Dr Hugh McGlynn, Head, Department of Biological Science; Liz Horgan, Science teacher, St Patrick's College; Sara Nierodzik, junior cycle winner, St Patrick's College; Megan O'Donovan, junior cycle runner up, St Patrick's College; and Aileen Courtney, Science teacher, St Patrick's College.



NEWS FROM THE INTERNATIONAL OFFICE

Erasmus Exchange Programme 2010

In September 2010, over 140 incoming Erasmus students from France, Germany, Spain (including Tenerife), Italy, Czech Republic, Netherlands, Greece, Belgium, Finland, Poland and Sweden, were welcomed to CIT. Induction meetings were organised by the International Affairs Office for the 9th and 10th September, and the students also attended an orientation session organised by the CIT Access Office during the first week of term.



CIT received over €130,000 in Erasmus mobility funding from the Irish National Agency for Erasmus, (HEA) to facilitate student and staff Erasmus exchanges and placements for the academic year 2010-2011. Some 70 students are expected to study or carry out a period of their work placement abroad this year, as well as 23 of the Institute's lecturing and non-teaching staff. The students will receive ECTS credits for the successful completion of their Erasmus study or placement periods. Students at all levels, bachelor degree, honours degree, Master's and PhD are eligible to participate in the Erasmus programme. Currently, CIT has over 80 exchange agreements with partner institutions in other European countries.

A new development in the Erasmus programme starting in the current academic year is the extension of Erasmus participation eligibility to students who are full-time registered students at partner institutions, but who were born outside of the EU. This will mean that all students currently registered in a full-time course at CIT can apply for an Erasmus funded exchange or placement. Visa and immigration requirements in Ireland and the host countries will need to be observed, so any students in this category will need to make early applications to avoid any delays.

Erasmus Placements

During 2010, a record number of CIT students travelled abroad to undertake practical training periods, with funding from the Erasmus programme

Of the total of 35 students, some 15 students from the Social and General Studies Department, carried out their placements in Social Care organisations in Sweden, Denmark, Holland and Portugal, whilst six Early Childhood Care and Education students travelled to Lahti in Finland, and Cologne in Germany. Students from the Departments of Chemical Engineering, Mechanical Engineering, Tourism, Biological Sciences, Chemistry and Civil, Structural and Environmental Engineering also participated in the placement programme during 2010. The Institute's large network of European partner institutions sourced and arranged placements for these students, in companies, research centres or in campus laboratories which carry out projects for external companies.

Despite the economic downturn, there has been a healthy increase in the number of overseas placements made available for CIT students, and this has been matched by an increased demand amongst students for overseas work experience.

CIT to host a National Conference on Erasmus

CIT will host an Erasmus Valorisation Conference and International Officers' meeting on 9th December 2010.

Registrars, academic staff and International and Placement Officers from Irish HEIs will attend the event. The event will focus on an evaluation of the lecturing exchange programme, with presentations from former participants, as well as how HEIs promote the Erasmus programme. More details in the next issue of the Learning City Magazine.

CIT joins the University Network of European Capitals of Culture (UNeECC)

CIT recently became a member the University Network of European Capitals of Culture (UNeECC).



The UneECC is an international non-profit association, which was founded in Pécs Hungary in December 2006, by 15 founding members. The UNeECC is a network aimed at stimulating new forms of collaboration between HEIs located in European Capitals of Culture (former, current and future capitals) both in the areas of education and culture. The network held its 4th Annual Conference in Pécs, Hungary (currently one of the three European Capitals of Culture for 2010), in October 2010, hosted in association with the Compostela Group of Universities. The theme of the conference was: "Inclusion through Education and Culture".

Attendees at the UneECC Conference in Pécs, Hungary, in October 2010. The building in the background is the Faculty of Business and Economics, University of Pécs.

The conference was also addressed by Jean-Philippe Gammel, Education and Culture DG, European Commission, who has responsibility for the European Capitals of Culture programme. The city of Cork was represented by Director of the National Sculpture Factory, Mary McCarthy, who was an invited speaker at the conference. CIT was represented at the conference by Ed Kuczaj and Jessica Carson of CCAD's Art Therapy Department, who jointly delivered a paper entitled: Arts Participation and Development in a Social Context, and by Margaret Mulderrig of the International Affairs Office. The UNeECC particularly encourages student participation in its development, and has also set up a parallel UNeECC Student network. The network sponsored a student from each participating institution to attend the student network meeting, which ran alongside the main UneECC conference. Jack Hickey, a 4th year BA (Hons) in Fine Art student, and former Student Union site President, gave a presentation on CIT and Cork at the student workshop.

It is anticipated that a number of academic and cultural contacts will be developed between CIT and some of the other UNeECC member institutions, particularly in the areas of arts, culture, tourism and the creative economy.

For further information, please see UNeECC website: <http://www.uneecc.org>.



László Andor, European Commissioner for Employment, Social Affairs and Equal Opportunities was the Keynote Speaker of the UNeECC-Compostela Joint Conference.

THOMAS LYNCH REPORTS FROM SWEDEN

Thomas Lynch is a 4th year BBS student who is currently spending the year in Blekinge Tekniska Hogskola in Sweden on an Erasmus placement. If he is successful in his studies there, he will qualify with both a BBS hons from Cork and a Master's from the college in Sweden.

At first, I was petrified; going to a foreign country, learning a new language, trying to make new friends and all the while studying for a Masters. Needless to say it was daunting, but with determination in my mind, and skype on my laptop, I headed to Sweden, expecting blondes everywhere and snow year round. Disembarking from the plane, draped in a jacket, scarf and gloves, I thought I had boarded the wrong plane when the sun began to make me sweat. In hindsight, it was daft of me to think that Sweden snowed year round, but I knew nothing about the country before; that's why I was going.

It was easy to make friends here because we were all in the same situation. I took my usual refuge in sport, making friends from all corners of the world. It was exciting; one person from Romania, another from Turkey, someone from Nigeria. Luckily I was Irish, and everyone always appreciated that. They had all experienced the welcoming atmosphere of an Irish bar and wished to reflect that back to me. Soon we were all going to parties every weekend together, and despite the odd spot of studying, were having a good time. After a time we all got into our comfort zones and began shaping groups. The obvious groups were formed, the Germans, the Spanish, the French etc; however there was a lot of room for floating among them. I eventually found my feet as the first wave of snow began to fall.

With all of Europe experiencing their worst winter in some time, we found ourselves trudging through the snow, or saving time walking across the frozen sea to other islands in our archipelago town. Snowmen were made, snowball fights were had, but the cold winter brought with it an unwanted desire to stay inside and study. And study we did, however it was not in the conventional Irish method. Despite our own college's progressions towards continual assessment in the past few years, there is still a lot of stress during 'those' two weeks at the end of the semester. However, in Sweden, they have a completely different system, where the focus is on self research and assignment work, as opposed to teaching and exam.

I observed the same practice in the second level schools here. The students wear no uniform, and have a lot of free time in between classes. I noticed this when I was taking part in a project organised by the International Office at BTH. The "European on Loan" scheme was designed so that visiting students could visit surrounding schools

to give the pupils an opportunity to speak to them in their mother tongue, and promote the idea of doing an Erasmus period abroad. I feel that I benefitted from the scheme as much as the school students. I would give a presentation about Ireland and later ask the students to tell me something about Sweden. I got a great insight into sports, games, food, holidays and culture here, while also experiencing first hand the excellence of the Swedish education system. The high reputation of the Swedish education system, like its public health care and public transport systems, are well-deserved. The current system of free third level education for everyone in the world, is currently under review at the moment, and may be limited to EU citizens, but even that is impressive.

These public services are all funded by notoriously high taxes which the Swedes don't seem to mind. In fact in a survey carried out eight years ago, more people were inclined to have the taxes raised. This concept of social responsibility and community fosters an atmosphere of 'help your fellow man', or even "your man from Ireland". And help they did. With the year coming to an end, I'm reflecting on how great it has been here. A white wonderland in winter, and now with spring warming the water, and barbeques filling the air with an appetizing aroma, I am sorry to be leaving Sweden so soon. But I am very thankful for the great experiences, thankful to Margaret Mulderrig, Michael Walsh, Maurice Murphy, Jannike Jonasson, and Melissa Engelke, and to all the Erasmus students who made the year great with trips to Kiruna, Lund, Göteborg and Stockholm, and with a party for every occasion of every theme. And finally I would wholeheartedly encourage any student thinking of studying abroad to go for it! I can't be certain that it will be the best thing you ever do, but it will definitely be a contender.



ESB/CIT/DIT Apprentice Engineering Education Programme (AEEP)

Dr Joseph Connell
Head, Department of Electrical Engineering

In 2009 and 2010, the ESB recruited double their usual number of electrical apprentices. In the recruiting advert, they offered simultaneously both a trade and the possibility of paid career improvement through transfer to 3rd level education. The reasoning was strategic: to create a resource of Level 8, or above, qualified engineers from which their expanding Networks/ESBI sectors might draw.

How will it work?

In the second year of apprentice training, phases 3 and 4, those who express interest in going to 3rd level will be graded on the basis of Leaving Certificate results in Mathematics and English, psychometrically tested and then put through a 6-module bridging programme to take place either side of and in the same location as their phase 4 theory block, i.e. in CIT or DIT. Additionally, as part of their preparation for the bridging modules, the apprentices will also undertake a web based Mathematics course provided by Calmast, WIT. Based on overall accumulated performance at the end of their 2nd year, the chosen apprentices will then enter Stage 2 of the currently available Level 7 programmes in electrical engineering in either of the two respective colleges in September 2011. This process may be repeated for up to 3 further years.

And why us?

CIT and DIT are two of the more established providers of electrical engineering education nationally. CIT's Electrical Department has steadily built on its apprenticeship programme over the years and its relatively recent arrival at Level 8 has already seen recruitment of its graduates into the ESB's national graduate programme. In choosing CIT as a provider partner, the ESB is recognising CIT's ability to deliver trained professionals and more particularly, professionals who can be a key element in their strategic plans for expansion over the next 5 to 10 years.

On 2nd September, 2010, the CIT apprentice cohort joined the Institute for a "taster" day and were warmly met by both CIT Faculty and Finance colleagues and also by senior people from within the ESB; the DIT cohort did likewise on 3rd Sept 3rd in DIT. Both occasions sealed the 3-way deal and an MoU will shortly be signed at CEO and Presidential level. Thus, a new era and a new relationship between CIT, DIT and the ESB will begin.

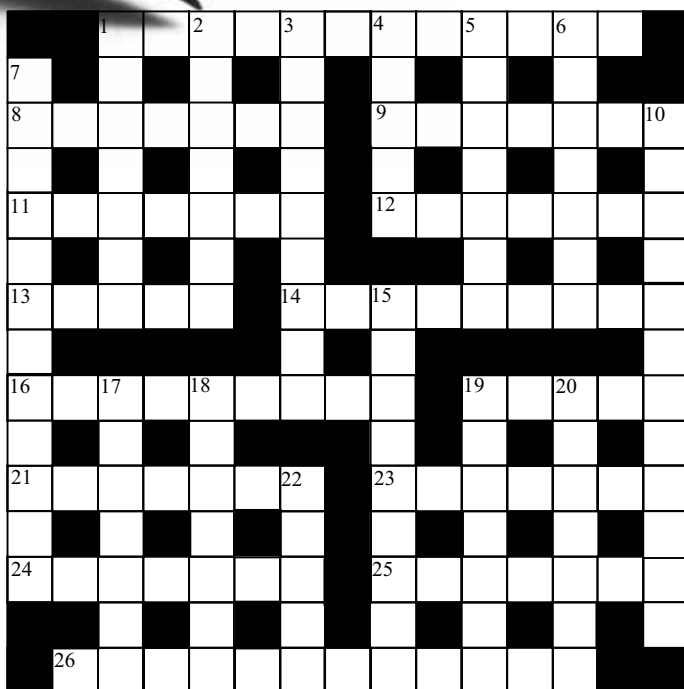


Michael Loftus, Head of Faculty of Engineering and Science, CIT; Patrick Eccles, HRD Manager, ESB Networks; Paul Gallagher, VP for Finance & Administration, CIT; Dr Joe Connell, Head, Department of Electrical Engineering, CIT; and Michael Loughnane, Manager, Leadership and People Development, Group Human Resources, ESB Ireland.



crossword

No. 14 Set by Cassa



ACROSS

- 1 How busybodies deal with seeing in the dark? (12)
- 8 Stop! Amber! Go! Confusion! (7)
- 9 Accumulation from support for gold rising? Nearly! (7)
- 11 Summary of abridged saga heading volume (7)
- 12 Note song can help tanning (7)
- 13 Quiet boat presumably had two of these fish (5)
- 14 Stars, not like 19 ac. or 6, but like such as 7 with a thousand, not a million (9)
- 16 Ideal shape for 3 model (9)
- 19 Fix the Spanish at Orion's feet (5)
- 21 Hear bungler didn't start shivering – not with this on! (7)
- 23 Bird fish in pig (7)
- 24 Fixes nameless fixer to get underway (3,4)
- 25 Outsider dismissed reported deceiver (7)
- 26 Clue for D, perhaps, in game after game (6,6)

DOWN

- 1 Teenager might cast spell with a basin, right? (7)
- 2 Fixture on boat, audibly declaimed the poet, over Scottish water (7)
- 3 Disorganised plot I came upon for world system (9)
- 4 Picture puzzle about transport (5)
- 5 Older version of 1 d. might be a raucous laughter (7)
- 6 Look up plaster producer around here – it's right above you! (7)
- 7 It's 50-50 between the siblings in the sky – you may need a 15 to see them all (5,7)
- 10 Fragile cows around head bull might be useful in making a 15 (5,7)
- 15 Select muddled desire of Cockney to see such as 6, 7 and 19 ac. (9)
- 17 Hamlet's friend on the bridge (7)
- 18 Mumbled gibberish right on centre with support rising (7)
- 19 Changed and played again (7)
- 20 Gather I'm invited into French laboratory (7)
- 22 ...economy, perhaps, to scratch fleas (5)

solutions on page 79

BCRI Symposium 2010

On 2nd and 3rd September, the Department of Civil, Structural and Environmental Engineering, CIT and the Department of Civil and Environmental Engineering, UCC, co-hosted the 2010 joint symposium on:

- Bridge and Infrastructure Research in Ireland BRI '10
- Concrete Research in Ireland CRI '10

State of the art research in these areas were complemented by presentations from leading keynote speakers. This symposium presented practitioners and researchers with an opportunity for dialogue on topics of mutual interest. Until 2008, these events have been held separately.

The first Symposium on Bridge Engineering Research in Ireland was held in 2002 and it has since been a biennial event. In 2006, BRI was expanded to include topics relating to all aspects of transport infrastructure. The original objective of the event to provide bridge researchers and practicing engineers with a

forum to meet and discuss current research focuses and design/construction practice was maintained, while including experts from all areas of transport infrastructure.

The first Colloquium on Concrete Research in Ireland was held in UCD in 1995 and has been held regularly ever since. The objective is to provide a forum for young and experienced researchers and practitioners to present and discuss their research work into all aspects of concrete.

CIT's Department of Civil, Structural and Environmental Engineering had additional cause for celebration on the second day of the conference when David Hodge, a CIT student, was awarded the prize for the best student presentation 'Finite Element Modelling of Transverse Load Sharing Between Hollow Core Floor Slabs' in the Concrete category. David's supervisors and co-authors were Brian O'Rourke and John Justin Murphy. Congratulations to all concerned.

Action Breast Cancer Month in CIT

October was worldwide Breast Cancer Awareness Month, and the Chaplaincy Student Support Team decided to raise funds for this very worthwhile cause by thinking outside the box. The team launched its campaign on the 4th October with Irish Cancer Society merchandise and information about breast cancer and support groups. The Info Desk on campus was also 'pinked' for the month.

On the 6th October, there were very strange looking 'women' down on pitch one in the Sports Stadium. A camogie match was held in aid of Action Breast Cancer; past players from CIT versus current players and staff as well as a few 'lovely ladies' thrown in for good measure. Players of the Match were decided by the referee, John Kearney, they were Irene Hogan and Miriam Deasy. Players travelled from all over Munster to attend and €500 was raised. Many thanks to Keith Ricken, Miriam Deasy and Irene Hogan for their assistance with this event.



On the 18th October, a table quiz was held in the Outpost Bar, Bishopstown. After gruelling rounds of questions, the eventual winners were 'The Couples Retreat' winning a cash prize and cinema tickets. Many thanks to the staff and management at The Outpost who sponsored the event and DJ.

The team would like to thank everyone who supported its campaign through the purchasing of merchandise, supporting the events or donating. The total amount raised in the month was €1290.51. All of the proceeds will go directly to Action Breast Cancer (part of the Irish Cancer Society).

CIT Receives Award for Promoting Innovation

Over 1,000 small Irish firms have used a €5,000 Government innovation voucher which allows them to link with college researchers to solve business and technical problems, according to the Minister for Science, Technology and Innovation, Conor Lenihan, TD.

Last September, Minister Lenihan marked the 1,000th innovation voucher milestone at an event in the Government's indigenous job creation agency, Enterprise Ireland, in Dublin, where he presented awards to CIT and other top knowledge providers.

The innovation voucher enables small firms to access skills, knowledge and specialist facilities in Government-funded research institutions.

Small Irish firms are now working with research teams in more than 41 research institutions - or so-called knowledge providers - across the island. CIT has completed 58 projects. For more detailed information, see www.innovationvouchers.ie



Mr Conor Lenihan T.D., Minister for Science, Technology and Innovation, presents an award to Carole O'Leary, Industrial Liaison Manager, CIT, in recognition of CIT's role in fostering a culture of innovation in small companies through the Enterprise Ireland Innovation Voucher initiative.

vmware®

IT academy



CIT and VMware Staff: (L - R) Jim O'Dwyer (Head, Department of Computing CIT); Gordon O'Reilly (Training Manager VMware - VMware IT Academy Instructor); John Dolan (Senior Director Global Support Services VMware EMEA, Japan and China); Karen Egan (Senior Engineering Manager, VMware); Michael Loftus (Head, Faculty of Engineering and Science, CIT); and Pat McCarthy (VMware IT Academy Programme Manager, CIT)



VMware IT Academy Class: (L - R) Gordon O'Reilly (VMware IT Academy Instructor); Martin Keane; Ger Thompson; Charles O'Flaherty; Jamie Deasy; Stephen Huxley; Fenian Santry; Pat McCarthy (VMware IT Academy Programme Manager); Will Conway; and Cathal Prendeville (absent from photograph).

CIT has launched a professionally certified VMware IT Academy. Virtualisation has emerged as a ground breaking technology providing private industry and public sector organisations with the ability to consolidate, secure, improve flexibility and reduce complexity in their IT infrastructure. VMware is a global leader in the development of virtualised technologies and the launch of the Academy will provide CIT students, full-time and part-time, with the opportunity to learn how to deploy and leverage VMware's key offerings in this context.

The development of the Academy was an initiative driven by Pat McCarthy, CIT VMware IT Academy Programme Manager and Gordon O'Reilly (VMware) CIT VMware IT Academy Instructor who designed the VMware Academy Infrastructure. Leadership for the initiative was provided by Michael Loftus, Head, Faculty of Engineering & Science, CIT, Jim O'Dwyer, Head, Department of Computing, CIT and John Dolan, Senior Director VMware Global Solution Services EMEA, Japan and China.

Pat McCarthy commented that "The rate of development of virtualised infrastructures is quite startling. IT professionals of all types will need to be competent in the key aspects of virtualised technology implementation and support." John Dolan, VMware commented that "VMware is the global leader in virtualization and cloud infrastructure and, through its ESX architecture, has transformed the way organisations deliver IT services. VMware is committed to continuously evolving its product and service portfolios and providing an excellent level of service to its customers. The establishment of the VMware Academy at CIT is a natural development for our Cork operation and we are delighted to help in providing to up-and-coming students, and to those who are already in the workplace, opportunities to learn how to optimally deploy and leverage our world-class technologies."

The VMware IT Academy programme enables participating academic institutions to provide VMware education to students partaking in full-time or part-time education. The programme is designed to introduce students to VMware technologies and equip them with very much sought after VMware technical skills. VMware supplies specifically designed course materials to support students in their learning endeavours.

CIT has installed a top-class infrastructure to support the delivery initially of the highly regarded VMware Certified Professional (VCP) in VSphere 4.1. The infrastructure has been designed by Gordon O'Reilly and Pat McCarthy and is composed of equipment provided by vendors such as EMC2, Brocade and DELL to support the delivery of the courses.

The first running of the VMware Certified Professional (VCP) in VSphere 4.1 in CIT has just commenced and is being delivered over a 12 week period on Mondays and Wednesdays (6.30pm - 9.30pm). This "slow burn" method of delivery enables students to develop excellent skills in virtualization, storage and networking technologies through a composition of theoretical modules and practical laboratory sessions in a purpose-built environment. The "slow burn" approach has been used successfully by CIT across many of its academies (e.g. CISCO, CompTIA and Novell SUSE Linux).

Michael Loftus, commented that "CIT is committed to providing a comprehensive and relevant set of IT courses that will support the development of Ireland's knowledge economy and innovation ecosystem. The launch of our new VMware academy will make a significant contribution in this context."

CSM News

Cormac McCarthy receives the Bill Whelan International Music Bursary



Cormac McCarthy, an emerging young jazz pianist and composer who completed both the BMus and Taught MA at the CSM, has recently been awarded a substantial music bursary by internationally acclaimed Irish composer Bill Whelan at an awards ceremony in Dublin. The Bill Whelan International Music Bursary, which was established to support Irish music students studying abroad, has assisted students to further their studies in disciplines ranging from film scoring, orchestration and music composition.

Cormac McCarthy is a Cork-born composer and pianist who began studying piano aged four and soon after discovered the joy of composition. His teenage years saw him develop both disciplines in tandem, studying with Mary Beattie and George Dunne at the CSM whilst receiving master classes from the likes of Philip Martin, Eva Poblocka, Barry Harris, Carola Grindea, Dr Billy Taylor and Edward Simon. He received a first class honours BMus in 2007 (majoring in piano performance) and went on to complete a Masters in Composition degree under C.S.L. Parker, graduating in 2009. Cormac has always performed and composed in a wide range of musical genres from classical to jazz to Irish traditional music, leading to public performances in the U.K., France, Italy, Spain, New York and Chicago, often featuring Cormac's own compositions. He has also appeared on numerous broadcasts and recordings including a recent TV documentary

featured at the Chicago Film Festival. As a composer, Cormac is looking to explore the synthesis of the different musical styles at his disposal and create an aesthetic of interest and real cultural value.

In September 2010, Cormac McCarthy entered a Masters course in Jazz Composition at DePaul University School of Music, Chicago, where he also received a scholarship to study with jazz composer and arranger, Thomas Matta.

Cormac said: "Receiving the Bill Whelan Bursary has benefitted me enormously in meeting the costs of living and studying in the U.S. Equally the prestige and honour associated with such an award is a massive personal boost and has given me a renewed belief in my composition." Cormac also received additional funding from the Arts Council for this study period.

Mairéad Hickey delights audiences



Mairéad Hickey is a 14 year old violin student of Adrian Petcu at the CSM. She has just returned from performing in a concert for solo violin in Legnago, Verona region, Italy. Famous as the birthplace of Antonio Salieri, this town hosts an international classical music festival - the Concorso Internazionale Giovani Musicisti "A. Salieri". Mairéad was awarded the Salieri Prize, primo premio assoluto, with an extraordinary 100/100 from all the judges in April this year and was invited back to play a solo concert.

On October 17, 2010, Mairéad performed a wide and varied repertoire of classical music for the violin, with piano accompaniment by Maestro Federico Donadoni. The concert was an outstanding success. There was standing room only and the enthusiastic Italian audience brought Mairéad back for an unprecedented three encores.

After the concert at 'Teatro Piccolo Salieri', she was invited to play at the opening of the Agostino Bonalumi poetry and painting exhibition in Libreria Ferrarin Mondadori, Legnago.

On both occasions, Mairéad captivated the audience with her performance which - as the current All Ireland under 15 fiddle champion - she finished off with some fast traditional Irish tunes, much to the audience's delight.

CSM Students win Prestigious Awards at ESB Feis Ceoil events

Congratulations to student Ellen Jansson and CSM graduate Santa Ignace who were both invited to perform short programmes in the prestigious ESB Feis Ceoil Young Platform Series in the National Concert Hall in Dublin in September. These invitations were extended following their successes in the Feis Ceoil held last April.

Ellen won the Rhona Marshall Cup for piano repertoire under 14 as well as coming second in the John Field perpetual trophy. She has been studying piano with Eleanor Malone at CSM since the age of six and has won many prizes at Feis Maitiú and Feis Ceoil over the years - this year winning both solo and repertoire competitions in Cork as well as her successes in Dublin. She recently attended the acclaimed Chetham's Summer School for Pianists in Manchester where she had the opportunity to take lessons from some of the world's finest performers and teachers.

Pianist Sante Ignace, from Latvia, won the Mabel Swainson Award - long regarded as one of the top honours in Irish musical life. She has been studying with teacher Jan Cap, CSM, receiving many awards and completing the School's Taught Masters Programme. As well as performing in the Young Platform Concert series, she also gave her debut recital in the National Concert Hall on 4th October. Sante has now gone on to further study in Italy.

Some additional awards were also presented during the first of these celebratory concerts. Amongst those honoured were Rebecca McCarthy-Kent (violin) and Emily Crowley (piano). Transition Year student Rebecca was awarded the Junior Strings Rose Bowl - given for the highest mark achieved in the Junior Strings competitions. She travels from Waterford every week for lessons in the CSM with Ruxandra Petcu-Colan. In Dublin, Rebecca won the Violin under 17 competition and has won many prizes over the years in Feis Maitiú, Arklow Festival, and Killkenny.

Young pianist Emily Crowley, who is just 10yrs and a student of Susan Cap, was together with Molly Murphy-O'Kane, jointly awarded the Junior Piano Rose Bowl. Emily won the Darina Gibson Cup for Piano under 11 in Dublin and was a prize winner in her solo and repertoire competitions in Feis Maitiú in Cork. She is also the School's current Junior Minora Medal recipient.

We congratulate these young students and teachers for their hard work and notable achievements and for winning these prestigious national awards!



Ellen Jansson



Rebecca McCarthy-Kent.



Emily Crowley

Awards Ceremony at the Curtis Auditorium 23 September

Gary Beecher and Denise Crowley with their prizes.
Gary won the Gaslink Perpetual Trophy; Bridget Doolan Perpetual Trophy; and the Nina Dalby Piano Sight-Reading Prize. Denise won the PM Group Perpetual Trophy; Bernard B. Curtis Perpetual Trophy; and the Pro Musica Trophy.



Grace Coughlan, Caoilfhionn Ní Choileain and Mairéad Hickey with their prizes.

Grace was the Junior Recital Competition Finalist winner; and also won the Bernard B. Curtis Memorial Trophy.

Caoilfhionn won the CSMSPA Perpetual Trophy; and a Medal for the most distinguished student in Intermediate Cycle.

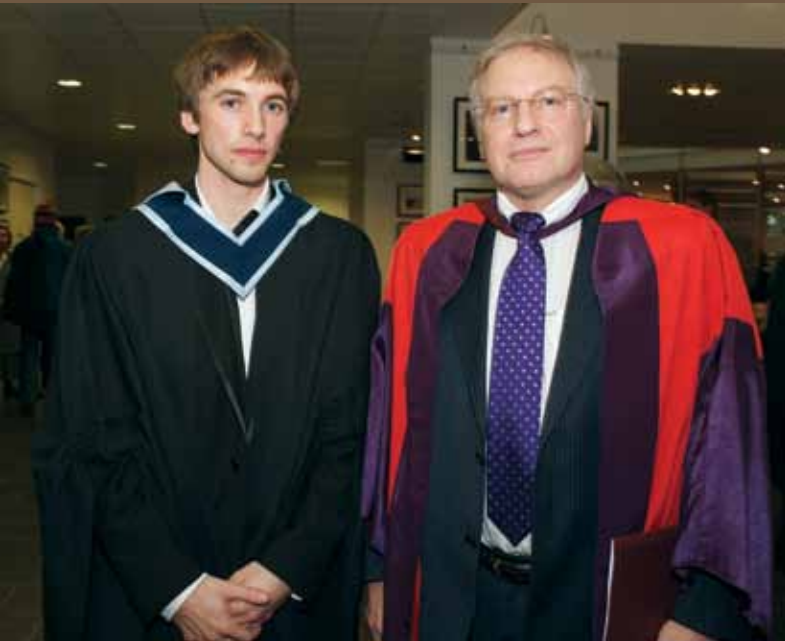
Mairéad won the ARUP Perpetual Trophy; and was also awarded the Director's Prize 2010



Dr Geoffrey Spratt, Director, CSM, with recipients of the Director's Prize, Damien O'Sullivan and Kieran Gleeson.



Conferring 2010 took place on the 1st November



Top Left

Sam Perkin, top BMus (Hons) student; and Dr Geoffrey Spratt, Director, CIT CSM.

Top Right

Ita Beauvais, Supervisor, Elaine Gordon, MA in Research; and Gabriela Mayer, Head of Piano,

Bottom Left

Michael Delaney, Head of Development, CIT; Deirdre Long, Waterford City, MA in Music; and Gabriela Mayer, Head of Piano.

Inaugural Irish Freemasons 'Young Musician of the Year'

CSM was represented by three semi-finalists at the Irish Freemasons Young Musician of the Year competition in Dublin during October 2010: Conor Palliser (piano), Ciara Glasheen (oboe) and Sinéad Frost (bassoon), the latter two accompanied by CIT staff member Ciara Moroney.

They gave their debut recitals for the Cork Orchestral Society in the Curtis Auditorium prior to the competition to great audience acclaim, and they all performed brilliantly in Dublin as well. Conor Palliser was a finalist and prize-winner and received extremely good feedback from both judges and audience members. The Final was broadcasted on RTÉ LyricFM. Particular congratulations to Mary Beattie, Lecturer in the Department of Keyboard Studies, who has nurtured Conor's talent since he was six years old.



Conor Palliser



Ciara Gleeson



Sinéad Frost



National Skills Competition - 2010

CIT once more played host to what can only be described as a most successful National Skills Competition.

(L – R) Organising Committee, 2010 with Dr Brendan Murphy, President, CIT: William Irwin, Michael Hourihan, Tom Knox, John Twohig, Ray Looney (Chairman), Séamus Farrell, David O’Riordan, Pat Forde and Geraldine Mahon.



Ray Looney (Chairman) makes final arrangements for the 'Awards Ceremony' with Dr Brendan Murphy.

This competition is run on an annual basis and is one of the most prestigious events in the crafts' calendar. It attracts the best trainee crafts persons from around the country to compete for first place in Ireland and win the coveted Department of Education and Skills Silver Medal in their respective skill. From the skills training perspective, it provides a magnificent opportunity to showcase the relentless commitment to the training and development of highly skilled crafts persons within the Irish education system. Irish industry also holds these competitions in high regard and is very supportive and facilitating to the competitors, as well as providing much appreciated sponsorship in the form of materials, equipment and financial assistance.

As usual a very high standard of craftsmanship was on display and competition was palpable with one craft producing joint winners. While CIT makes its equipment and resources available, the event is organised and run by a voluntary organising committee. This consists of a group of dedicated CIT staff who have a keen interest in the crafts and who in many cases have themselves been either competitors or winners in the National Skills Competitions in the past.

This year, ten competitions took place at CIT namely; carpentry, construction plant fitting, electrical installations, industrial control, joinery, metal fabrication, plastering, refrigeration, welding and restaurant services. CIT entrants performed very well with winners in; construction plant fitting, electrical installations, metal fabrication, refrigeration and welding. While competitors must not be more than 22 years of age on the year of the competition, winning is seen as a tremendous achievement and national winners are revered and much sought-after by prospective employers. In addition, national winners may be chosen to represent Ireland in the WorldSkills competition which is a bi-annual event. The next WorldSkills competition will be held in the UK in 2011 and next year's National Skills Competition will be held in March to facilitate this.

The National Skills Competitions are open to the public and visitors are always welcome to view and savour the high levels of craftsmanship on display along with the tense competitive atmosphere.

Cllr Michael O'Connell, Lord Mayor of Cork, Dr Brendan Murphy, President, CIT, and Batt O'Keeffe, Minister for Enterprise, Trade and Innovation, were present at the Award Ceremony.



Daniel Devereaux was presented with the winner's trophy in Construction Plant Fitting.



Dean O'Gorman was presented with the perpetual trophy for Welding by sponsor Finbarr Hennessy.



Aidan Lowry was presented with the winner's trophy for Refrigeration & Air Conditioning.



Ger Roche was presented with the winner's trophy for Metal Fabrication.



Kieran Doherty was presented with the winner's trophy in Electrical Installations.

Delegation visits Polytech Paris Sud

Ray Looney

Last autumn, a delegation from CIT visited Polytech Paris Sud in France with a view to establishing links between their respective departments. Polytech Paris Sud is no stranger to CIT with student exchange programmes already in existence.

While the theme for the visit was clearly apprenticeship, from the onset it became apparent that there is a significant difference in the use and interpretation of apprenticeship across the two cultures. While apprenticeship in Ireland is almost exclusively associated with skills training and ends with the awarding of FETAC's National Skills Certificate, the concept of apprenticeship in Polytech Paris Sud extends right up to the equivalent of CIT's Honours Degree and beyond. In many cases, their equivalent CIT fulltime degree student would be referred to as an apprentice, having already become an employee with an appropriate company. The apprentice will then alternate between the employer and Polytech in two week blocks. In addition, two extended periods are given with the employer in January/February and again in July/August, giving a yearly total of 32 weeks with the company and 20 week at Polytech. For this, the apprentice is awarded 45 credits by the company and 135 credits by the college.

The highlight of the visit to Polytech Paris Sud was a tour of one of Renault's car production facilities on the outskirts of Paris. The plant in question produces the shell and assembles approximately 733 Renault Clio cars per day with a production time per car of approximately 14 hours. Regardless of one's enthusiasm for motoring affairs, this tour proved very interesting, ranging from the advanced control and automation of sophisticated robots to clear evidence of scientific management and just in time production methods with, for example, one truckload of car seats arriving at the plant every 30 minutes.

During the visit, a number of meetings were held between Polytech Paris Sud and CIT staff. However, due to the significant difference between the two apprenticeship systems, it was felt that before any further progress could be made, a similar delegation from Polytech Paris Sud should visit CIT. It is hoped that this will take place early in 2011 when a strategy for further engagement can be formulated.

School of Business hosts

IRISH ACADEMY OF MANAGEMENT CONFERENCE



The thirteenth annual Irish Academy of Management Conference was hosted by the School of Business on 1 - 3 September 2010.

Head of School of Business Mr Gerard O'Donovan and Conference Chair Dr Margaret Linehan welcomed approximately 140 delegates to CIT from academic institutions throughout Ireland together with overseas delegates from a range of countries including Australia, Britain, France, Iceland, Switzerland, and USA.

Officially opening the conference CIT President Dr Brendan Murphy said, "the theme of the conference, Renewing the Management Research Mandate, provides opportunities for researchers to share information and to consider how the knowledge produced contributes to the wellbeing of the larger society in which we live and work. I am pleased that this conference will continue to highlight the importance of management research, particularly in the current economic climate".

Gerard O'Donovan, Head, School of Business, CIT; Dr Brendan Murphy, President, CIT; Prof. Jean Bartunek, Professor of Organisational Studies, Boston College; Dr Margaret Linehan, School of Business, CIT, and Conference Chair; and Prof. Michael Morley, University of Limerick, and IAM Chair; at the 13th Irish Academy of Management Conference, hosted by Cork Institute of Technology

Three keynote addresses were presented during the conference. The first plenary session was given by Professor Jean M. Bartunek from Boston College. Professor Bartunek focused on the theme of the conference and asked, "Should the renewed management research mandate include practitioners?" Her presentation explored the connections between academia and practice by focusing on academic papers published in high-ranking journals, and asked some thought provoking questions in relation to the relevance, if any, of 'implications for practice' section of these articles.

The second keynote address was given by Mr John Connolly, Commercial Director at SouthWestern, a business process outsourcing company. Mr Connolly was invited to share his business experience with delegates, and his presentation, "Strategies for growth: Lessons from industry", focused on the development of SouthWestern. His presentation traced the successful development of SouthWestern from its foundation in 1957 to its market leadership position in business process outsourcing today. He attributed the commercial success of SouthWestern to innovation, research and development, and people development.

The final keynote address was given by Professor Frank Horwitz from Cranfield School of Management. His timely plenary session focused on "Seven challenges for developing leaders in the post global financial crisis world". His presentation suggested that the primary challenge for companies today is to provide customer value based on values of doing business responsibly and with integrity. He believes that organisations require the next generation of executives from business schools to be: entrepreneurial and innovative, self-aware, adaptive, ethical in leadership, independent thinking, and to promote responsible governance, develop problem-solving capabilities, and manage in times of rapid change, uncertainty, complexity and global diversity.

The large number of papers presented by academics and postgraduate students were arranged into a number of parallel sessions, including: human resource management, organisational behaviour, tourism, teaching and learning, marketing, industrial relations, retailing and wholesaling, strategic management, technology management, accountancy and finance, and healthcare management. Prizes were awarded for the best paper presented in each of the parallel tracks.

Last year's conference introduced two new Academy award categories. First, the Distinguished Contribution to Management Award was presented to Dr T.K. Whitaker, and is now known as the Irish Academy of Management Whitaker Award. The recipient of the 2010 Irish Academy of Management Whitaker Award was Dr Miriam Hederman O'Brien. Dr Hederman O'Brien is recognised as an outstanding figure in national and European public affairs who has given decades of expert and committed service to a wide range of institutions, governments, and civic programmes. In a volume of essays celebrating her work, she is described as "a rare and exceptional person in the breadth of her interests and the quality of her contribution over so many fields" (de Buitléir and Ruane, 2003).

The second category, Fellowship of the Academy, acknowledges individuals for their distinguished contribution to academia and to the development and growth of the Irish Academy itself. Fellowship of the Irish Academy of Management is the highest honour the Academy can bestow on one of its members. The 2010 recipient was Professor Bill Roche from the Department of Industrial Relations and Human Resources at the School of Business, University College Dublin, and Honorary Professor at the School of Management, Queen's University Belfast. He has played an important role in business and management education in Ireland, including the early development of the Irish Academy of Management and the Irish Journal of Management. The awards were presented at the conference dinner, attended by Batt O'Keeffe, TD, Minister for Enterprise, Trade and Innovation, and members of CIT's Institute Executive Board.



The Minister for Enterprise, Trade and Innovation, Batt O’Keeffe TD with Prof. Bill Roche of UCD who was made a fellow of the Irish Academy of Management and Dr Miriam Hederman O’Brien who was presented with the Ken Whittaker Lifetime Award to management in Ireland.



Mika Vanhala, Lappeenranta University of Technology, Finland; and Briga Hynes, University of Limerick.



Mika Vanhala, Lappeenranta University of Technology, Finland; and Briga Hynes, University of Limerick.



Dr Marian Crowley-Henry, Dublin Institute of Technology; and Richard Mitchell, Ulster Business School.

AEHT CONFERENCE & COMPETITIONS 2010 - LISBON

The Association of European Hotel and Tourism Schools (AEHT) annual Conference and Competitions took place in Lisbon from the 5th –10th October. Over 800 people, students, teachers, representatives of international hotel groups and invited lecturers, took part in conferences, workshops and competitions covering the different tourism areas. This event represents a major opportunity to share knowledge on best practices and experience from different parts of the world, as well as to promote the hospitality and tourism industry. The students were chosen from among the top three of their respective class groups. The Irish representatives were made up of students and lecturers from WIT, AIT, ITT, LYIT as well as CIT.



Representing CIT were Amanda Noonan (Hospitality Management Yr 2); Kiara O’Driscoll (Total Immersion Chef Programme); and James McCarthy (Total Immersion Chef Programme).



Partnerships for Progress

Conference recommends closer alignment between business and higher education

Leaders from industry and higher education, and policy makers from government departments and funding agencies came together at Farmleigh House, Dublin, on 23 September, to discuss how to develop closer engagement between higher education and the world of business and the wider community.

The conference was organised by the Roadmap for Employment - Academic Partnerships (REAP) Project. REAP is a collaborative project funded through the Higher Education Authority's Strategic Innovation Fund. The project is led by CIT and has eight Higher Education Institutional project partners, six Institutes of Technology and two Universities.

Opening the conference, Minister for Lifelong Learning, Seán Haughey TD told the participants that 'Close cooperation between higher education and business has benefits for everyone – it promotes the relevance and attractiveness of higher education programmes; it provides business with the skilled people that it needs; and it gives assurances to graduates on the relevance and marketability of their skills.'

Encouraging the participants to engage fully with the conference theme of 'Partners in Progress', the Minister went on to say that while relationships between the worlds of business and higher education are well established in Ireland, they are more important now than ever before as we seek to regain economic stability and ensure growth and sustainability for the future.

Keynote presentations were delivered by Mike Devane, Chair, American Chamber – Research and Development Working Group, Business and Industry Consultant, Quilly; Prof. Eamonn Murphy, Director, Enterprise Research Centre, University of Limerick; and Prof. José-Ginés Mora, University of London. The keynote presentations in each case were followed by panel discussions which focused on the potential scope of external engagement, how higher education institutions can support it, and how success can be measured.

Speaking from the perspective of industry, Mr Devane said the critical question was "What motivation is necessary to cause external engagement to take place?" He identified five key areas for engagement - integrated planning and alignment that matches education investment to skill deficits; investing in new skills in the current workforce; ensuring rapid redeployment of critical core skills in the workforce; creating clusters of knowledge around internationally recognised research institutes that attract investment; and addressing the inevitable loss of capability in industry through continuing corporate education and development. He went on to say that Higher Education, for its part, must be able to do more with less; keep a focus on research and innovation; and provide leadership for change.

During the panel discussion, Mr Michael Kelly, Chairman, HEA argued if we need to produce people who at the end of three or four years can actually emerge and hit the deck running, it does involve not just HEIs, but the engagement with employers, with enterprise, which needs to happen a long time before graduates emerge.

Prof. Murphy also spoke about the need for innovation and flexibility, and embedding the concepts of continuous learning, teamwork and intellectual curiosity in what he described as the 'extended university'. He also argued that higher education is not just an economic imperative, but it is also a social imperative. He stressed that HEIs exist not for industry, but for the individual and for allowing the individual the opportunity to freely and easily access knowledge. This issue of the purpose of HEIs then dominated most of the panel session, with a discussion on the varying missions of Higher Education providers and the need to measure performance against mission.

Prof. Mora emphasised that the measurement of these activities was very difficult, given their very wide range and complex nature. He discussed the Good Practices in University – Enterprise Partnerships (GoodUEP) project which examined University Enterprise partnerships in 18 European universities. From an examination of 10 cases of good practice, Leadership, Entrepreneurship, Flexibility, Innovation and Trust emerged as the crucial success factors. He emphasised again that no two partnerships are the same and he suggested that in many cases, there is a reluctance in the academic world to foreground this engagement activity.

In the panel discussion that followed, Muiris O'Connor of the HEA suggested that among other measures, student profile in institutions could tell a lot about external engagement – the percentage of flexible learners, evening courses, part-time learners, open business learners, mature, adult learners, for example.

The conference proceedings was published in December. For more information on the conference and on the REAP project, go to www.reap.ie or contact reap@cit.ie



Dr Brendan Murphy, President, CIT; Minister for Lifelong Learning, Seán Haughey TD; and keynote speakers: Mike Devane; Prof. José-Ginés Mora; and Prof. Eamonn Murphy.



From CIT: Paul Keane, CAMMS Centre Manager; Dr Margaret Linehan; and Josette O'Mullane, Industry Liaison Manager.



Michael Delaney, Vice President for Development, CIT; Dr Terry Maguire (ITTD); Jennifer Van Aswegen (ITSligo); and Irene Sheridan, Head, Strategic Innovation Projects Unit.



Faculty of Business and Humanities Annual Awards Ceremony

On 27th October, the sixth annual Faculty of Business and Humanities Awards ceremony took place in the Tourism and Hospitality Building, to honour the Business and Humanities graduates for 2010. A total of 28 awards were presented across the Faculty. This event was established to celebrate the achievements of its outstanding students and to acknowledge the contribution of many others who supported them.

The Faculty of Business and Humanities incorporates the School of Business (consisting of the Department of Accounting and Information Systems, the Department of Continuing Education, and the Department of Management and Marketing), and the School of Humanities (consisting of the Department of Developmental Education, the Department of Tourism and Hospitality Studies, and the Department of Social and General Studies). There are approximately 4,000 students including full-time, part-time and craft students within the Faculty of Business and Humanities.

Bernard Vallely from the Department of Continuing Education was Master of Ceremonies on the night. Bernard introduced keynote speaker Dr Barry O'Connor, Registrar and Vice President for Academic Affairs, and Damien Courtney, Head of Faculty, who paid tribute to the graduates and staff.

The Awards Ceremony was attended by the recipients of these awards, their families and friends, and staff of the Faculty of Business and Humanities. The various Awards were presented by sponsors from several organisations of the business, banking, accounting, sports, tourism and hospitality, community, social and health care sectors.

Twenty six awards were presented to students who excelled in degree, professional full-time and evening programmes in 2010 while Fáilte Ireland presented two special awards to persons from the Department of Tourism and Hospitality Studies who excelled in the Hospitality sphere. These achievements are a splendid testament to both students and staff.

Diarmuid McDonnell, BBus (Honours) in Information Systems was the recipient of the Des Roche Memorial Award in memory of Des Roche, Lecturer in Business Studies, who sadly passed away in 2008.

A reception at the conclusion of the formal part of the evening was an ideal opportunity for celebrating the achievements of the award winners. It was also an opportunity for staff, students, sponsors and indeed retired staff to socialise in a relaxed and pleasant environment.



BBus (Honours) in Accounting: Dr Barry O'Connor, Registrar & VP for Academic Affairs; Damien Courtney, Head of Faculty; Sheila Lewis, CIMA; Jamie Russell, Recipient; Don Crowley, Head, Department of Accounting and Information Systems; and Gerard O'Donovan, Head, School of Business.



Master of Business (Taught): Hazel Shanahan, EMC² presents the award to Lisa Hayes.



Aoife Lohse was presented with the Fáilte Ireland Service Award.



BSc in Agriculture: John Mulhern, Principal, Clonakilty Agricultural College presenting the award to James Ambrose.



BBus in Business Administration: Dr Barry O'Connor; Damien Courtney; Marian McGurrin, La Crème Recruitment; Aisling Carey, Recipient; Don Crowley; and Gerard O'Donovan.



BBus in Culinary Arts: Dr Barry O'Connor; Damien Courtney; Conor O'Brien, La Rousse Foods Ltd; Loraine Walsh, Recipient; Adrian Gregan, Head, Department of Tourism & Hospitality Studies; and Ray Coughlan, Head, School of Humanities.



BBus in Management: Dr Barry O'Connor; Damien Courtney; Ger Mahoney, Deloitte; Michelle Dunne, Recipient; Ann-Marie Twomey, Department of Continuing Education; and Gerard O'Donovan.



BBus in Bar Management: Dr Barry O'Connor; Damien Courtney; John Bowe, Irish Distillers Ltd; Geraldine O'Mahony, Recipient; Adrian Gregan and Ray Coughlan.



BA in Early Childhood Care and Education: Dr Barry O'Connor; Damien Courtney; Catherine Sheehan, Cork Early Years Network; Ann Lane, Recipient; Jim Walsh, Head, Department of Social & General Studies; and Ray Coughlan.



The Des Roche Memorial Award: Dr Barry O'Connor; Damien Courtney; Kathleen Roche; Diarmuid McDonnell, Recipient; Don Crowley; and Gerard O'Donovan.



BBus (Honours): Dr Barry O'Connor; Damien Courtney; Rose Coughlan, Manager, Bank of Ireland CIT Branch; Marie Griffin, Recipient; Brian McGrath, Head, Department of Management & Marketing; and Gerard O'Donovan.



BA (Honours) in Social Care: Dr Barry O'Connor; Damien Courtney; Donn Horgan, Manager, AIB CIT Branch; Jennifer Cotter, Recipient; Jim Walsh; and Ray Coughlan.

AWARDS 1ST PLACE TO CIT STUDENT ÚNA REIDY

On the 24th September, Úna Reidy, of Knocknagoshel, Co Kerry, received a 'Student of the Year Award' from the Excellence Ireland Quality Association (EIQA), having achieved 1st place at the 2010 EIQA examinations for the Diploma in Quality Management Part 1. This national examination is taken by students at a number of Irish institutions where the course is delivered on behalf of the EIQA. The course is managed at CIT in the Department of Chemistry, and is delivered by Dr Mary McCarthy and Mr John Conroy.



Irene Collins Managing Director, EIQA; with Úna Reidy Student of the Year DQM Part 1.

Úna graduated in Biomedical Sciences from CIT in 2001, and subsequently completed the joint CIT/UCC MSc in Biomedical Sciences in 2007. She is employed in the Microbiology Laboratory of the Bon Secours Hospital in Cork, which was the first hospital in Ireland to attain ISO laboratory accreditation. Among her other duties, Úna is responsible for managing the regular laboratory audits, as part of the hospital's quality assurance process. She has found the EIQA Diploma in Quality Management Part 1 to be a valuable addition to her qualifications, and is currently studying for the EIQA Diploma in Quality Management Part 2 here at CIT.

TEACHERS AND GUIDANCE COUNSELLORS INFORMATION DAY



Lillian Griffin, Loreto, Fermoy; Kathryn Daly, Douglas CC; Patricia Walter, Cork County VEC; and Kate Whalley, Presentation Brothers College; at the Information Day for Teachers and Guidance Counsellors.

CIT's annual Information Day for Guidance Counsellors took place on Thursday 4th November in the Rory Gallagher Performance Theatre which is located on the Bishopstown Campus. Various presentations were made to Guidance Counsellors from all over Munster on new courses, further developments, as well as plans for the Institute's future.

The Guidance Counsellors were welcomed by both Dr Brendan Murphy (President of CIT) and Dr Barry O' Connor (Registrar and Vice-President for academic affairs). In welcoming the Guidance Counsellors, Dr Brendan Murphy stated 'That as an Institute we are acutely aware that the Guidance Counsellor role is pivotal, where you are the front line resource used by many students considering their future options specific to higher education.'



Dr Barry O'Connor, Registrar and Vice President of Academic Affairs, CIT; Laura Wasilowski; and Deputy Lord Mayor, Kieran McCarthy.

NATIONAL EXHIBITION OF PATCHWORK AND QUILTING 4TH - 11TH SEPTEMBER

The 4th September saw the opening of the Irish Patchwork Society free "Q For Quilts" exhibition. Members of the Irish Patchwork Society, who are spread throughout Ireland, came together to display a variety of patchwork quilts, ranging from seven foot wide bed quilts to art quilt wall hangings. As well as viewing the quilts, visitors watched demonstrations of the craft and also listened to a talk by American quilt artist Laura Wasilowski, who officially opened the exhibition.



Dr Garrett O'Sullivan, CIT; with Rebecca Murdoch and Clodagh O'Neill, at the Department of Architecture stand.

OPEN DAY 2010

A very successful Open Day was held on the 20 November. An extensive range of activities were held throughout the day, which was of particular benefit to students selecting higher education courses and planning subsequent future careers. The main features of the day were course Exhibitions and a series of information sessions, workshops, demonstrations, exhibitions of student work and laboratory visits which took place in the various departments on the various campuses.

SOCIAL CARE AND RECREATION & LEISURE STUDENTS PARTICIPATE IN A EUROPEAN PROGRAMME ON WELL-BEING

Hosted by Lahti University of Applied Sciences, Finland; in collaboration with Saxion University, The Netherlands; Frankfurt University of Applied Sciences, Germany; and CIT.

Amy Shine, Anne-Marie O'Shea, Jane Scanlon, Tessa Marnane, Eva Casey, Sinead Morrissey, Vivienne O'Mahony and Elaine O'Riordan.

Student perspective:

In April/May 2010 eight students, four from 1st year Social Care and four from 2nd year Recreation and Leisure visited Finland to complete the first two week Intensive Programme on Wellbeing. This programme was an exciting experience that has provided us with the opportunity to get a real insight into the social and health care structures of other European countries.

During the programme we worked closely with individuals from Finland, The Netherlands, Germany and Cyprus. The main themes were theories of health and well-being, structure of social and health care services, different professionals within the field, professional ethics and entrepreneurial potential.

The individuals that took part in the course came from different social and health care professions. These professions included social care workers, nurses, physiotherapists and recreation and leisure students. This gave us all a clear view of the input of each profession and the significance of each profession also. By working together we got a clearer understanding of how taking a holistic approach benefits the patient as well as the professional. We also discussed the best methods of inter-professionalism and how effective these methods would be in each country.

Through working together we got to see first-hand the benefits of working as part of an inter-professional group. For example, as part of our workshops, we examined case studies of different types of people such as; at risk youths and terminally ill patients etc. We all agreed that if we had been working alone or within our own professions that we would not have come up with so many solutions to the different problems. This shows that by working together we are taking a client centred approach which is more beneficial to the client and also makes our job a little easier. We discussed how and why each situation could and couldn't work in each country. Through this method we were able to see the advantages and disadvantages of each country's health and social care structure.

We did a pre-assignment presentation about our own National structures and health and social care services. Through observing the other countries presentations we gained new information about different European structures and varying cultures. By noting drawbacks in other systems we were able to appreciate areas of our own systems that we may have taken for granted before. By hearing about other systems that worked well we were also able to see flaws in our own system or areas that could be much improved in our own country. It was also very interesting to get an insight of these structures through the eyes of people that are working and studying within these professions. By working in groups, we gained many new skills such as teamwork, debating skills, and interpersonal skills.

Parts of the programme made us all reflect on the different job opportunities that may be available to us, not only in our own country but in the European Union also. For example, we visited a Rehabilitation centre, a home for mothers and their children and also a school for children with disabilities. We were amazed by the excellent facilities at hand in these centres. We could see that they were taking a holistic approach and it was very effective.

Having visited the centres we all reflected on the experience and discussed the role of our professions there. By showing us different types of health and social care facilities we were able to see that there are many types of centres available to work in. The work in the centres is very rewarding.

The programme was an all-round beneficial experience for the Irish group. It was very well organised. There was a lot to be gained from the programme and no downside to taking part. We have learned many new aspects about our own professions and about other professions with whom we will be working in the future. We had an opportunity to see a new country, had a great time in Finland and made new friends along the way also. The coordinators of the course showed great Finnish hospitality. We would like to thank everyone who made this a good experience for us; the co-ordinators, our lecturers Con Burns and Ona McGrath and all of the students who took part.

Group of participating students and staff.



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CTC continues to support Local Authorities

CTC continues to provide technical support to local authorities in Ireland as part of the national Local Authority Prevention Network (LAPN).

CTC were active in the organising of the National 2010 LAPN Conference in Croke Park in June 2010 and the event was a great success with a very high attendance. There were speakers from EPA, CTC, ESRI, DEHLG, local authorities and OVAM, and workshops and discussions on several subjects.

CTC has prepared a Summary Report of the Local Authority Prevention Demonstration (LAPD) Programme from 2006 - 2009. The programme, which was supported by the EPA as part of the National Waste Prevention Programme (NWPP), demonstrated a wide range of successful projects involving 14 local authorities. These have improved resource efficiency (waste, water and energy) practices in local businesses, communities and within the local authorities themselves, with significant cost savings. The report highlights the successes of the programme over a four year period, whereby local authorities undertook ambitious actions across a range of sectors with significant results.

The fourth iteration of the Local Authority Prevention Network Certified Course in Waste and Resource Use Prevention is underway and is being implemented by the Clean Technology Centre. Already 26 local authority and other staff have been trained in this course and a new set of 8 trainees are undergoing training this year. The aim of this accredited programme is to provide participants with the knowledge and technical skills necessary to develop, conduct, lead and manage waste prevention or minimisation strategies within their organisation or for others.

In total, CTC has worked with 17 Local Authorities as part of this the LAPD and LAPN EPA funded initiatives. In addition, some 200 other organisations have also been involved.

To download the Summary Report of the Local Authority Prevention Demonstration (LAPD) Programme, go to www.ctc-cork.ie/lapd

To learn more about the Local Authority Prevention Network (LAPN), go to www.localprevention.ie



CTC Staff at LAPN National Conference, Colman McCarthy, Eileen O'Leary, Dermot Cunningham, Mairead Creedon, James Hogan, and Colum Gibson.



Speakers at the LAPN National Conference, Philippa King, Regional Waste Co-ordinator, Limerick Clare Kerry Regional Waste Management Office; Ray O'Dwyer, County Manager, Waterford County Council; Laura Burke, Director, Office of Licensing, Climate and Resource Use, Environmental Protection Agency; Prof. John Fitzgerald, Senior Economist, Economic & Social Research Institute; Katrijn Siebens, Head of Unit Waste Prevention, OVAM, Public Waste Agency of Flanders, Belgium; and Dermot Cunningham, Director, Clean Technology Centre.

Chinese Delegation

As part of its ongoing work in China under the Asia-Invest Programme, in July 2010 CTC hosted a large and prestigious Chinese delegation to Ireland and CIT. 23 Chinese officials, academics and representatives of environmental organisations from 11 provinces visited Ireland and spent time at the Environmental Protection Agency in Wexford and the CTC.

The delegation was received by Michael Delaney, Vice President for Development, CIT, who formally welcomed the group. The site visits were managed by Colum Gibson and the group were given presentations about the CTC and its role in Ireland by Dermot Cunningham and Tadhg Coakley. The group was also given a day's briefing on the Green Hospitality Award showing its successes and possible replicability in China by James Hogan, CTC.

CTC assisting Producer Responsibility Initiatives

CTC is now working with the EPA's Enforcement Support Framework – Producer Responsibility Initiatives (PRIs), in a framework agreement for enforcement support services for PRIs over a period of three years for waste electrical and electronic equipment (WEEE) and batteries.

The project will be for the completion of campaigns of inspections to determine compliance with PRIs. Such campaigns of inspections by CTC will focus on the following:

- Particular commercial and industrial sectors;
- Selected geographical areas;
- Distance sellers; and,
- Particular requirements of the Regulations.

The locations at which inspections will be carried out will also include the following:

- Retail outlets and other business premises;
- Distribution centres.

CTC will carry out inspections on websites and other means of distance sales. Desktop studies may also be a feature of some inspection and intelligence gathering campaigns. CTC will also be preparing B2B guidance and as well as carrying out other activities to promote compliance with the various producer responsibility initiatives.

EU Energy Project

CTC is a partner in the EINSTEIN II Project that aims to contribute to a widespread implementation of integrated energy-efficient solutions for thermal energy supply in industrial companies with a high fraction of low and medium temperature heat demand, and for non-industrial users of similar demand profiles (such as hospitals, commercial centres, large office buildings, district heating and cooling networks, etc.).

The project, which is funded under the Intelligent Energy Europe (IEE) Programme of the EU is led by EnergyXperts SL and Chamber of Commerce and Industry Madrid (Spain and Germany) with partners from Austria (Austrian Energy Agency and AEE INTEC), Luxembourg (Centre de Recherche (CRP) Public Henri Tudor/Centre de Ressource des Technologies pour l'Environnement (CRTE)), Germany (Deutsches Institut für Normung e.V. and ZukunftsAgentur (DIN) Brandenburg, Italy (Tecnoalimentati), France (Chamber of Commerce Drôme), UK (West Midlands in Europe), Bulgaria (Ruse University "Angel Kunchev") and Slovakia (Slovakian Cleaner Production Centre). The project builds on the EINSTEIN tool kit for thermal energy auditing that has been developed within the previous IEE project EINSTEIN (<http://iee-einstein.org>)

CTC Presents at Resource Ireland 2010 Seminar

CTC staff members Eileen O'Leary and Tadhg Coakley presented at the Resource Ireland 2010 Seminar in Simonscourt, Dublin on October 13th and 14th. There were three strands in the Seminar: Waste, Water and Sustainable Business. Both Eileen and Tadhg presented in the Waste strand.

Eileen's presentation was Managing Food Waste in Health Care Facilities in Ireland and it set out the work being carried out by the CTC and others under the Environmental Protection Agency's Green Healthcare Programme, focusing in particular on food waste. The different sources of food waste within hospitals were detailed, including potential steps that can be taken for its reduction. An example of some savings made to date by one hospital was outlined.

Tadhg's presentation was Optimised Domestic Pay by Use Charging Systems for Ireland – A review of EPA /CTC Research Programme and it outlined the results of an EPA STRIVE research project. This study (2008 – 2010) aimed to evaluate each pay by use (PBU) domestic waste collection system in Ireland in terms of its impacts upon waste disposal, recycling, and, in particular, waste prevention, in order to determine the most environmentally effective system or system components. The presentation outlined the draft results and findings of the project, the final report of which will be available in early 2011.

To download these presentations go to www.ctc-cork.ie

Mechanical Engineering News ...

On the 24th June, students David Kelleher and Ciara McKenna won three of the top four awards at the 22nd Annual International Medical Engineering Student Awards.

This competition is open to recent graduates, third/fourth year undergraduates and taught Masters degree students, who have completed or are working on a project involving the design or development of a medical device. Following short-listing from a large international entry, each project in the International Medical Engineering Student Awards undergoes an exhaustive process of submission investigation, prototype presentation demonstration and exhibition before a distinguished adjudication panel of internationally renowned Medical Engineering Industrialists and Professors.



David Kelleher won the overall prize for 'Best Published and Presented Project', for his project on the Development of Bovine Teat 3D Sensing System for Disinfection Purposes, under Supervisor, Dr Michael J. O'Mahony. David also won 1st place in the 'Best Project involving the Design and Development of a Medical Device'.



Ciara McKenna won 2nd place in the 'Best Project involving the Design and Development of a Medical Device' for her project: Evaluation of the pullout strength of orthopaedic screws in developing novel bone cement, under Supervisor, Dr Hugh O'Donnell.

Two Major Awards for CIT Teams at Enterprise Ireland / Invest Northern Ireland Student Enterprise Awards 2010

On the 3rd June, the national Enterprise Ireland/Invest Northern Ireland Student Enterprise Awards 2010 were announced by Minister Billy Kelleher, T.D., Minister for Trade and Commerce. 350 third level student submissions were short-listed to 15 undergraduate and postgraduate finalist teams from colleges all over Ireland. The competition involved two days of project presentation, assessment and exhibition.

1st Place Student Enterprise Awards - €10,000
Dipsticks – University of Ulster, Coleraine

2nd Place Student Enterprise Awards - €7,500
Mobilis – Cork Institute of Technology

3rd Place Student Enterprise Awards - €7,500
Ethical Energy – Queen's University Belfast

Enterprise Ireland/Invest Northern Ireland Award of Merit - €2,500
Tip Top Cue Tips – Cork Institute of Technology

The Mobilis team, comprising Myles Murray, Gavin O'Sullivan and Mark Keane, undertook the development of an Intravenous Infusion System designed to optimise patient mobility.

The Tip Top Cue Tip team of Jonathan Howley, Daniel Henderson, Aidan Vaughan and Ronan O'Donoghue, are developing a chalk-free Snooker and Pool Cue Tip.

Both national award winning projects were undertaken as part of the Innovative Product Development Laboratory Modules under the tutelage of Dr Michael J. O'Mahony, Dr Chris Gibbons, and Seán F. O'Leary.

Many thanks to all who lent advice and guidance to the CIT student teams in their preparations for the National Enterprise Awards and in particular Joe Kelleher, WJM Kelleher Associates; Paul Healy, Manager, Rubicon Centre; Richard O'Connor, General Manager, Cruickshank Intellectual Property Attorneys; Ger Flynn, Chief Biomedical Engineer, HSE; Pat O'Connor, Manager, MEDIC; Charles Daly, MEDIC; and lecturers Michael P. O'Mahony and Dan O'Brien.

Congratulations also to all in the Development office – Glynis Dennehy, Nicola Walsh, Carole O'Leary, Josette O'Mullane, Ruth Coughlan and Michael Delaney, Vice President for Development, - the CIT Prize for Innovation is a crucial catalyst for the development of the student innovation projects.

Mary Robinson presents the W B Yeats Medal to William Holland

On the 1st November, William Holland was presented with the Undergraduate Awards of Ireland and Northern Ireland William Butler Yeats Medal (First Place - Engineering and Mechanical Sciences) by Ms Mary Robinson at the Royal Irish Academy, Dublin. William's project was on the topic "Outsole Design for the Enhancement of Support and Performance in Sports Footwear" - supervisor Dr Hugh O'Donnell.



CIT Alumni Association (CITAA)



CIT has an established Alumni Association which enables graduates to keep in touch with developments at CIT and maintain contacts with friends, classmates and faculty staff from college days. Recent advances in technology have enabled graduates to engage with CIT and with former classmates. The creation of social and professional forums such as Facebook and LinkedIn supports graduates to reconnect with CIT and one another.



To find out about all the latest news and developments at CIT we encourage you to join these groups by logging onto LinkedIn, Facebook and Twitter and search for:



CIT Alumni Association Facebook
CIT Alumni LinkedIn or <http://ie.linkedin.com/in/citaa>
CIT Alumni Twitter or <http://www.cit.ie/alumni>

Graduation Days

Welcome to all the new alumni who were conferred in 2010, expanding the alumni community. All graduates enjoy automatic, free membership of the CIT Alumni Association.



Niamh Duffy and Rachel Daly received a Bachelor of Business (Honours).



PhD graduates James Carroll, Biology; Marine Henry, Biology; Daniel O'Driscoll, Chemistry; Olivia Cashman, Biology; and Pierre Douarre, Biology.

CIT Alumni Upcoming Events

Date and Time	Event	Venue	Cost	Booking
Friday 4 March 2011	CIT Alumni Association Concert	Curtis Auditorium, CIT Cork School of Music.	€20 - Full Price €15 - CIT Alumni €10 - Concession	E: alumni@cit.ie or T: 021 4326589
Friday 15 April 2011	CIT Alumni Association Golf Classic & BBQ 3 person team event First Tee Off: 14.04hrs	Lee Valley Golf and Country Club, Ovens, Co Cork	€60 per person (includes Golf & BBQ)	E: alumni@cit.ie to book your team.

CIT Alumni Association Concert

The CIT Alumni Association and Cork Piano Forum in association with the CIT Cork School of Music are pleased to present a very exciting concert featuring members of a very musical Cork family, the Moynihans.

Six siblings playing five different instruments will perform a mixed programme of classical and Irish traditional music on Friday, 4 March 2011 at 8pm in the Curtis Auditorium. The concert will feature different combinations of instruments from piano solo to duos, trios and a full sextet (voice, two flutes, piano, uilleann pipes and guitar). They are delighted to be invited to perform in the CIT Cork School of Music, where they all began their studies and discovered their passion for music. All performers are now established professional musicians living in Dublin, London, Mayo and Cork and they will reunite in their native Cork for this concert.

Advance Booking: CIT Alumni Office E: alumni@cit.ie
Tickets available also at the General Office CIT Cork School of Music and at the door



CIT Alumni Awards

2010

An Alumni Award is the highest honour that CIT can present to a graduate. To date, six graduates have received an Alumni Award.

Alumni are leaders in their fields and excel in their areas of endeavour. CIT celebrated this excellence through the presentation of the CIT Alumni Awards, which honoured three graduates who have distinguished themselves in their respective professions. The main aim of the CIT Alumni Awards is to celebrate the life-long value of an education and to provide inspiration for others – peers and current students.

The CIT Alumni Award recipients were selected from nominations put forward by members of the Institute community. The judging panel was chaired by the President of CIT, Dr Brendan Murphy, and comprised of representatives from the Institute Alumni Association Committee. Each award recipient was presented with a sterling Silver Strawberry Dish which was made by the silversmiths at Sean Carroll and Sons of Rutland Street, Cork.

The following outstanding graduates received an Alumni Award:

Graduating from CIT in 1985 with a Bachelors Degree in Electronic Engineering, **Bob Savage** is also a chartered engineer of the Institution of Engineers of Ireland (C Eng).

He is a member of a number of professional bodies and is a Committee member of the CIT Alumni Association. Bob is currently Vice President and Managing Director for Ireland of EMC² Corporation based in Ovens, Co Cork, having worked for the company for 22 years. EMC² employs approximately 40,000 people worldwide, more than 40% of whom work outside the US. EMC² Ireland was established in 1988 to manufacture IT storage products for its EU customers.

The second Alumni Award Recipient is artist **Vivienne Roche**. Born in Cork, Vivienne Roche studied art in the Crawford College of Art & Design, from which she graduated in 1974. She also studied at the School of the Museum of Fine Arts in Boston. Since then she has worked as a full-time artist.

In addition to her gallery work – her work is in public and private collections in Ireland and abroad – she has created many major public sculptures. These include her commemorative piece in honour of President Cearbhall O'Dalaigh in Sneem (1983); major pieces outside and inside the perimeter of St. Patrick's Cathedral in Dublin. More recently she collaborated with the poet Derek Mahon

to make a four metre high 'poem sculpture' in Killarney and created three-part work, Light Ensemble, in CIT Cork School of Music to mark its completion. Vivienne was a founder member of the National Sculpture Factory in Cork and is a member of Aosdána since 1996.

The third Alumni Award Recipient is **Gerard O'Mahoney**, FCA, Corporate Finance Partner and Regional Partner in Charge at Deloitte. A native of Bishopstown, Ger is a graduate of Cork Institute of Technology in Business (Accounting).

Gerard was the founding chairman of the CIT Alumni Association and was an active member of Scouting Ireland including serving as National Treasurer. Gerard is the Regional Partner in charge of Deloitte with responsibility for the firm's Cork and Limerick offices which employ 200 people.

The current president of Cork Chamber of Commerce, Gerard is a board member of IDA Ireland and the National Institute for Bioprocessing Research and Training (NIBRT). He is also a Director of the People in Need Trust and a member of the Cork Science Park advisory board.

CIT honours three illustrious graduates on the 7th October 2010 at a Gala Banquet.



Recipient Bob Savage, EMC²; Dr Brendan Murphy, President, CIT; recipient Vivienne Roche, Artist; Michael Delaney, Vice President for Development, CIT; and recipient Gerard O'Mahoney, Deloitte & President, Cork Chamber.



Alumni Award recipients Gerard O'Mahoney, Deloitte & President, Cork Chamber; Artist Vivienne Roche; and Bob Savage, EMC².



Many thanks to AIB and PJ Hegarty & Sons who sponsored the event.

What can we offer new graduates?

The CIT Alumni Association offers members the following benefits and services:

- Access to worldwide and regional chapters of the CIT Alumni Association
- A choice of CIT affinity credit cards with either AIB or Bank of Ireland which offer cardholders preferential rates
- Class reunions service
- Discounts for services
- E-News (please ensure we have an up to date email address)
- Mailing of the Learning City magazine (please ensure you keep us updated with contact details).
- General information about careers, interview skills and CV development for recent graduates (for 1st year out graduates)
- Access to CIT facilities (including library membership)
- Invitations to various events

Affinity Cards

A large number of graduates, students and friends of CIT have now become holders of CIT Affinity Cards. Did you know that whenever you use the special Visa/MasterCard from AIB or Bank of Ireland, you are helping your Alumni Association? This is because as well as offering you preferential rates and other benefits, every time you use the card the bank makes a contribution to CITAA ... at no cost to you! So why not add either the AIB or Bank of Ireland CIT Affinity Card to your wallet? To apply today and support your college hurry down to either Bank of Ireland or AIB campus branch or phone:

Bank of Ireland, CIT on 021 454 5177
AIB, CIT on 021 454 1672

Organising a Reunion

CIT Alumni Association offers a support service for those wishing to organise a reunion. We can also provide you with the contact details of your former classmates. Call us on Tel + 353 21 4326589 or email alumni@cit.ie for more information. We would be delighted to include your photos in the next edition of Alumni News

Find a Friend

The Alumni Office offers a free service for CIT Alumni who are seeking to contact old friends. If you would like to contact a class-mate or another College friend, all you have to do is contact us to post a request.

Class Notes

Let your classmates know what you have been doing. If you have news promotions, marriages, births, awards, publications etc. please contact us. If possible, please include a colour photograph with your name and address printed on the reverse.

Whatever your news, forward it to: The CIT Alumni Association, CIT or contact us at T: 00 353 21 4326589 or by E: alumni@cit.ie

Chemical Engineering - 25 Year Reunion

Graduates from the Chemical Engineering class of 1985 relived their student experiences when they met for a Reunion on the 23 October in Cork. Old photographs and stories evoked fond memories and a great night was had by all. Classmates travelled from various parts of Europe and the US.



Back row: Tony Hurley, Diarmuid O'Connor, Dave Murphy, Joe O'Hara.
Front row: Mick O'Connell, Dave Harrington, Ger Downing, Ger Buckley, Ed Hoare, Noel Duffy and Dr Michael Noonan.



(L- R) Dr Michael Noonan, Ed Hoare, Diarmuid O'Connor, Glynis Dennehy, Dave Murphy, Ger Buckley, and Tony Hurley.

CIT MAKES AN IMPACT AT

SOCIAL MARKETING CONFERENCES

THROUGHOUT THE WORLD

2010 saw the research community involved in Social Marketing in the School of Business at CIT, showcase its work both nationally and internationally. Next year - 2011 promises to be an exciting year with the Second World Non-Profit and Social Marketing Conference taking place in Dublin in April 2011 and CIT being a strategic partner. The following are some of the highlights of 2010.

The 2nd Social Marketing Conference was held in NUI, Galway at the J.E. Cairnes School of Business and Economics on 4 June 2010. The theme of the conference was Making it Happen – Changing Behaviour and Changing Policy. The keynote speakers were Prof. Gerard Hastings and Dr Ray Lowry. Gerard Hastings is Professor of Social Marketing at Stirling University, Scotland and is Director of the Institute for Social Marketing and the Cancer Research UK Centre for Tobacco Control Research. Ray Lowry lectures in health interventions in Newcastle University, England. CIT was represented by Maurice Murphy and Master in Business students – Tim Crowley, Barry Griffin and Ronan O’Sullivan.

Maurice Murphy presented a paper entitled – Impact of Social Marketing on Irish Female College Students’ Binge Drinking: Are Fear Appeals Effective? This paper dealt with social marketing and its application to the problem of third level drinking among Irish female students. It analysed what anti-alcohol advertisements should contain in order to prevent/reduce this problem drinking. Barry Griffin presented a paper on Adolescent Female Smoking: Does Social Marketing Have the Answer? This investigated if social marketing, through the use of fear appeals can prevent adolescents taking up smoking. Ronan O’Sullivan presented his paper on The Use of Social Marketing in Increasing Organ Donation Rates. This paper dealt with the key role that social marketing can play in getting people to change their attitudes towards organ donation as well as encouraging more people to carry an organ donor card. The success of organ transplantation has led to the primary problem facing transplantation today: lack of sufficient organ donors.

The 9th International Congress of the International Association on Public and Non Profit Marketing (IAPNM 2010) was held in the National School of Political Studies and Faculty of Public Administration in Bucharest, Romania on the 10 - 11 June 2010. CIT’s Management and Marketing Department were represented by Maurice Murphy and two Master in Business students – Barry Griffin and John Healy, who presented three full papers and two works in progress.

The Congress had a twofold objective, first, to compile and edit the latest developments in the field of research in Public and Non Profit Marketing, and secondly, to gather in a discussion forum, professionals and academics interested in the area of this marketing discipline. The Conference had as its theme – The Role of Public and Non-Profit Partnerships in the Delivery of Public Goods and Services. The keynote speaker was Dr Andrew Ewoh, Master of Public Administration Programme

Director at the Department of Political Science and International Affairs, Kennesaw State University, Georgia, USA. Delegates at the conference came from all over Europe, as well as South Africa, Canada and the USA. Maurice Murphy is the Irish representative on the IAPNM Organising Committee.

Maurice presented a paper entitled Driven to Excess: An Analysis of the Causes of Young Male Driver Deaths and Injuries. There were 240 road fatalities on Irish roads in 2009 – the lowest level since records began and 39 deaths down on 2008 figures. Young male drivers are still 7 times more likely to be killed on Irish roads than other road users. Young male drivers in particular demonstrate a high proclivity for risky driving behaviours. This paper presented an analysis of the causes of young male driver deaths and injuries, including drink driving, speeding, drug-driving and engaging in aggressive driving. Papers entitled The Gift of Life: The Role of Social Marketing in Organ Donation and a full paper entitled Binge Drinking: The Curse of the Female Student? were also presented

Barry Griffin presented his paper on Thinking Outside the Box: Does Packaging on Cigarettes Work? This paper analysed the key role of packaging on cigarettes in terms of its importance in promoting a health message and contrasts were shown between text-based, graphic-based and plain packaging in terms of how effective each were at promoting a non-smoking message. John Healy presented his work on Just One Pint Saves Life: The Role of Social Marketing in Blood Donation. This paper dealt with how blood donation is dependent on the goodwill of people to voluntarily donate blood, without financial reward. There is a continuous need for new blood donors, because the demand for donor blood is increasing, whereas the supply of blood is declining. Only 3.6% of the eligible population in the Republic of Ireland donate blood. This leaves an enormous potential blood donor base, which if tapped into and maintained could lead to an adequate reserve of donations to meet the transfusion needs of this country. The focus of the paper was on how social marketing can be effective in increasing blood supply.



Crawford College of Art and Design Conferings



Michelle Murphy, Amy O’Riordan and Caoimh Ryan received a HDip in Arts for Art & Design Teachers.



Sarah Moore and Kate O’Brien received BA (Honours) in Fine Art.



Helen Lynch and Paul O’Reilly received a BA in Fine Art.

Retirements



Simon English, Geoff Steiner Scott, Harry McCormick, Kate McCormick, Dr. Julian Campbell, and Vera Ryan.

Pamela Hardesty to exhibit in Venice Biennale 2011

Pamela Hardesty, CCAD Textiles Lecturer, has been invited to exhibit in the 54th Venice Biennale in 2011. Her work will be part of a special Collateral Exhibition organised by Association Arte and Arte of Como, Italy, featuring international textiles works selected from among their annual European touring projects held over recent years. Pamela exhibited with Arte and Arte in 2007 and in 2008 as a special exhibit within an educational project with Italian Colleges. Elsewhere in 2010, Pamela has exhibited in Tokyo alongside the Japanese artist Asako Ishizaki, after a 6-month collaborative exchange in concept development, and is currently part of Genius Loci at Galeria X in Bratislava, Slovak Republic.



CULTURE NIGHT

On Culture Night, the Ceramics Department had a constant stream of visitors. Some tried their hand at throwing pots on the potter’s wheel, while others decorated pots with sgraffito, where they scratched through a layer of white slip to reveal the dark clay underneath. At the other side of the studio, visitors busied themselves making patterns with coloured pieces of clay on white clay and formed dishes with it. Others pressed delicate ‘petals’ of paper clay together to form a patchwork. Throughout the evening dozens made teeny tiny teapots which now form a beautiful colourful ‘herd’. Fun was had by all.



Cultural Night paper clay patchwork.



A herd of Teapots.

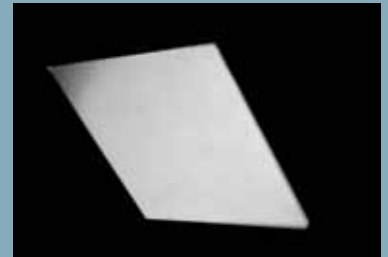
Wandesford Gallery



Since last June, the Wandesford Quay Gallery has been rented by CIT for use as a city-centre gallery, exhibition space, and centre of learning ...

The realisation of such a facility resonates well with the Institute's desire to provide relevant, outward looking educational opportunities for its students, and to continue to contribute to the creative and intellectual life of the city. Art and design students now have a professional environment in which to experience a full range of learning activities: exhibition, curation, engagement with audience, critical practice and not least intimate exposure to the work of local, national and international artists. The philosophy of the new space is one of recognition of creative expression within all disciplines and one of encouragement

of learning. It is therefore particularly appropriate that the venue opened with an exhibition of work by three graduating students from the Master of Arts research programme: Liz Cullinane, Mags Geaney and Roseanne Lynch.



Giclee print on metal by Roseanne Lynch.

An exhibition of recent work by Frank Phelan and Donal Moloney ran from the 15th September – 2nd October. This exhibition was facilitated by Christine Pybus and curated by Harry Mc Cormick.



Donal Moloney



Frank Phelan

Positive Space

An exhibition "Positive Space" featuring Ceramics from CCAD graduates, Sara Flynn and Nuala O'Donovan, ran from 6th August – 28th August. The exhibition facilitates an emerging dialogue between the organic and manufactured, the singular object and its arrangement, the vessel as negative space and object as its positive counterpart.

Sara and Nuala hold studios in Cork and exhibit widely nationally and internationally. Mutual exhibitions in 2010 include Ceramic Art London at The Royal College of Art, London; Collect at The Saatchi Galleries presented by the Crafts Council of Ireland and Material Poetry an exhibition of contemporary objects from Ireland, American Irish Historical Society, New York, curated by Brian Kennedy.



'Teasel' by Nuala O'Donovan



'Protected Vessels' by Sara Flynn

2010 CIT CRAWFORD DEGREE SHOW

"Fractals", the 18th Annual CIT Crawford College of Art and Design Degree Show for BA (Hons) Degree students, was officially launched by sculptor Vivienne Roche, on the 18th June. A highlight of the midsummer exhibition calendar in Cork, it featured work from 52 students across a broad range of disciplines. The exhibition gives a panorama of artistic concepts and approaches which are being executed in a wide range of different media. A long tradition of 'painting' and 'sculpting' excellence seems to be opening more and more to 'new media', as almost half of this year's students are choosing to express themselves in a less traditional way.

In general, the common multi-disciplinary approaches among CCAD students seem to embody the College's unwritten policy of an open, department-free, environment where one is not obliged to choose between the disciplines. Many of the present graduates do not fit easily into any of the formal, or even, conceptual categories.

This approach in turn contributes to this year's unofficial patron – science. In a remote yet meaningful way 'Fractals' as a chosen name for this show commemorates the original plans of the Crawford's founding fathers one hundred years ago, who intended their new educational centre in Cork to marry science and art under one roof, as the Crawford Municipal Technical School.

Ciprian Hopirtean exhibits

To celebrate twenty years of bilateral diplomatic relations between Romania and Ireland, the Embassy of Romania organised two cultural events in May: a concert at CIT CSM and an art exhibition in CIT's Bishopstown Campus. Artist Ciprian Hopirtean was born in Romania in 1977 and he graduated in Fine Arts in 2008. Since 2009 he has lived and worked in Carraroe, Galway, where he has found inspiring human and geographic landscapes that challenge him to find their hidden value. The title of this exhibition, "Almost Beyond" speaks of the importance attached by the artist to the hidden image, of his concern for the hidden side of things, the mood, the power to go beyond appearances and to see deeply.



On the 7th May, His Excellency, Mr Iulian Buga, Romanian Ambassador to Ireland, officially opened an exhibition of paintings by Romanian artist Ciprian Hopirtean.

'in an attempt to find the right words ...'

consists of over 2000 bronze cast pencils which appear to have been launched (dart-like) onto the wall. It is a new permanent public art installation by James Hayes at The Belmullet Arts Centre, Áras Inis Gluaire, County Mayo.

James Hayes, artist and lecturer at the CCAD said of the artwork, "The tip of the pencil touches the white wall as a pencil would ordinarily touch paper. The pencils are poised, yet no mark has been made and the pencils remain frozen in this position. By casting multiple pencils in bronze I draw on the wall using the pencils themselves, they form a pattern, or a type of large scale drawing. The pencils undulate across the long horizontal wall in an almost neurotic fashion, coming together in clusters and dispersing again.

The work brings together various expressions of creativity, including ideas, written memories and aspirations from a number of participants. The first mark one makes is often made with a pencil."





REPRESENTING CIT AT CAMPUS '10 ALAN MEANY, JOHN CONSTANT, IAN O'LEARY, NIAMH HUTTON AND LAURA KACINAUSKAITE.

In September 2010, students from the Department of Media Communications participated in a major Digital Media exhibition at Ars Electronica in Linz, Austria. The CAMPUS exhibition is an annual event that takes place during the Ars Electronica Festival, where educational Institutes are chosen to exhibit their work alongside professional designers and practicing artists. The department was hugely honoured to be chosen to participate in this exhibition, as recent participating intuitions include; MIT, Boston (2009), University of Tokyo (2008), Institute Industrial Design and Media, Aarau Switzerland (2007), University of Art & Design Helsinki (2006) and Srishti School of Art Design and Technology, India (2005). At CAMPUS '10 it was the first time, since its inception 25 years ago, that two institutes exhibited together. CIT collaborated with Hochschule Darmstadt Germany, who share the jointly accredited programmes of Bachelor of Arts in Multimedia and Master of Arts in Media Design.

The theme of CAMPUS '10 was 'Expanded Interfaces', this was chosen by the curators of the exhibition (CIT: Trevor Hogan, h_da: Sabine Breitsameter, Torsten Fröhlich, and Claudia Soeller-Eckert). The assignment was to reconceptualise and reinvent human-machine communication and the individual elements of interaction it entails in a large-scale scenario analogous to expanded cinema. Students developed user interfaces for new media products that boldly go beyond conventional ones available now.

Representing CIT were Alan Meany, Laura Kacinauskaite, Ian O'Leary, Niamh Hutton and John Constant. Alan's project, entitled '**Ambient Knowledge**' investigated the use of Ambient Information Systems to inform house owners of the energy usage of their homes. Alan presented five lamps whose colour was being controlled, in real time, by the energy usage of five different houses in Cork City. Laura created '**Ceannacht**', a project that challenged existing Irish stereotypes by comparing current non-national and international views of Ireland people. The other project from Cork students was '**Presto**', Ian, John and Niamh created a public interactive digital experience, which provides people of all levels of artistic ability with a platform to express themselves through the creation of digital visuals, and allow them to exhibit this work in a public space.

The exhibition proved to be a great success for both CIT and Hochschule Darmstadt and was visited by over fifty thousand people. The students also benefited greatly from the experience, two of the projects (Ambient Knowledge and Presto) have since been asked to exhibit in Paris, France and Sydney, Australia.



BA Design Communications Exhibition: 'DNA – It's What We Are Made Of'

The BA Design Communications 3rd year students undertook a student initiated exhibition, which was organised and planned by the students, along with lecturers Valerie Renehan and Gwen Lettis. The exhibition, titled 'DNA – It's What We Are Made Of', demonstrated work undertaken over the course of their final year. The work was displayed from 28th May - 1st June 2010 in the Nexus Student Centre Gallery. An opening evening took place on the 28th May, which marked the successful completion of their BA in Design Communications. The work included Experimental Typography, Branding, Promotion, Television Advertising, Digital and Narrative Image and Web Design. Congratulations to all students.

Graphic Design Industry ADVISORY AWARD 2010

The 'Graphic Design Industry Advisory Award' ran in Semester 2 as part of the BA Design Communications (3rd year) 'Professional Practice' module. The project was coordinated and supervised by Industry Representatives, Frank Dowling and Jim Horgan, along with module lecturers, Valerie Renehan and Steven Young. The project divided students into competing groups, in which they were asked to design a Television Advertising Campaign, either for or against Incineration. Working closely with the Industry Representatives and each other, the teams worked towards a final formal presentation. The aim of the project was to meet the requirements of the client in designing a creative solution that communicated a clear visual message to its target market. The winning team in 1st place, who were against Incineration, designed an empathetic solution that told the story of a young girl in the future looking back to the present. The campaign spoke directly to parents as it captivated the audience with its clever script and emotive tone, visually enhanced with focused and direct imagery. Congratulations to all involved and specifically to the winning teams.

*Jim Horgan and
Frank Dowling
presented the
awards:*

*1st Place - Bobby
Cashman, David
Hurlihy, Michelle
McKeon and
Helena Long.*



*2nd Place - Diane
Lilley, Rory O'Brien
and Kevin Corcoran.*

*3rd Place - Donal Cotter, Joanne
Rogers, Dawn O'Sullivan and
Maura Dineen.*





Design Week 2010

The Department of Media Communication was delighted to host the Institute of Designers of Ireland (IDI) Graduate Design Awards which ran from the 1st - 7th of November. The Exhibition was one of the many events taking place around the country for Design Week.

Rose McGrath, Head, Department of Media Communications stated, "It was a pleasure to be involved in bringing this exhibition to Cork, especially to the Wandesford Quay Gallery which has recently been acquired by CIT. The exhibition had a fabulous collection of exciting design work created by graduates from many of the design programmes nationwide. As an IDI council member I believe it was important to participate in Design Week and by hosting the Exhibition we had an opportunity to celebrate the creativity of Ireland's upcoming designers here in Cork City."

The exhibition was opened by the President of the IDI, Mr Derek McGarry, on the 2nd November. Mr McGarry said, "The IDI was thrilled to have had the opportunity to take the very best work from this year's crop of graduate designers to Cork for this exhibition at the Wandesford Quay Gallery. It is extremely important to the IDI that we do everything we can to promote the innovative work of contemporary designers from all four corners of Ireland. This year we received approximately 120 entry submissions from more than 22 design courses. It is particularly rewarding to see such a high quality selection of designs from each of the five multidisciplinary categories in this year's competition."

It is always very interesting to watch potential design trends. While in 2009 we saw an increase in the number of medical device design entries in the product category, this year we received a wonderful collection of entries from the craft sector. As 2011 is the World Year of Craft, and with the World Crafts Council visiting Ireland in June, the increase in high calibre craft work is particularly timely.

As work is about to start on the north Dublin Metro linking the airport to Dublin City Centre, the innovative Dublin City Transport Map by Aris Venetikidis's, from the National College of Art and Design, sets out to address the evident need for an integrated design solution to assist commuters and tourists in Ireland's capital city. However, the work goes further than this by providing tremendous help to city planners and transportation companies. The panel of jurors agreed that this entry had significant design value that sets it apart from all of the other entries in this year's competition."

The exhibition contained design graduate awarded work in; Visual Communications, Multimedia, Interior Design, Product Design, Textile and Fashion Design.



Derek McGarry, IDI President and Orla Flynn, Head, CIT Crawford College of Art & Design.



Jennifer Slattery NCAD Graduate Textile Designer and Gwen Lettis, Lecturer, Department of Media Communications Department - Exhibition Coordinator.



Paul Woods, DIT Graduate, New Media Designer



the work of Marco Vernaschi

Award winning Press Photographer Marco Vernaschi gave a talk organised by Phil Curtin, Lecturer, Department of Media Communications, on the 14th October in the Rory Gallagher Theatre.

Award winning Press Photographer Marco Vernaschi

DESIGN STUDENTS RE IMAGINE CORK ... [INSIDE] OUTSIDE

Promoting all that Cork has to offer and enhancing the city environment through the innovative use of multimedia, graphic design and interior architecture was a key focus of this Exhibition.

Entitled [Inside] Outside, this exhibition displayed the work of final year students in Multimedia, Visual Communications and Interior Architecture. It was officially opened by Barry Sheehan of the Institute of Designers of Ireland. The exhibition showcased the work of 45 students who showcased their final year projects to the public in the Nexus Student Centre in the Bishopstown Campus on the 6th June 2010.

Included among the exhibits were: a new iPhone app and accompanying website for tourists visiting Cork city for the first time, a dark, fantasy history/cookbook showcasing the role of the English Market in the history of the city, a multimedia installation that allows people to create digital art in public spaces, and branding for a new reading and book festival in Cork that highlights the city cultural heritage.

Among the topics and themes explored by the Interior Architecture students were a redesign of Mahon Point Shopping Centre, the design of a School of Architecture for CIT, the creation of a city centre hostel at Victoria Cross, a residential community centre within the ruins of Charles Fort, Kinsale, and a hotel from the plans of Curaheen Hospital.

"While not part of any of the students' briefs it is heartening to see Cork city and county play such a key role in their work. They care greatly for their city and this is reflected in the creative and innovative work that they have produced," commented Rose McGrath.

"It is inspiring to see the range of work by these young designers across all of the disciplines. The focus on design in CIT, and in Cork, is significantly enhanced as will be evident by anyone who visits this exhibition," commented Katherine Keane, Head, Department of Architecture in CIT.



MA in Media Design - Alan Meany



*BA (Honours) in Visual Communications
- Gemma Power*



*BSc (Honours) in Interior Architecture
- Audrey OConnor*

Tom Dennehy *retires*

Tom Dennehy's retirement function was certainly a night to remember. It was held on the evening of Thursday, 19th November, 2009 in the Kingsley Hotel. This will be remembered to many as the night Cork was flooded and so Tom's night proved to be memorable in more ways than one. Tom and his family, as well as several CIT staff members were stranded in the hotel for a good 48 hours! It was a wonderful celebration of Tom's years with CIT and was filled with anecdotes and laughter.

Tom joined the City of Cork VEC in 1971. He moved to the Bishopstown campus when Cork Regional Technical College was established there and worked through the time when it became CIT. In the past, Tom taught on many programmes and taught a wide variety of subjects including Communications in various Departments as well as Heritage Studies with Tourism students. For many years, Tom was a lecturer in the Department of Social and General Studies where he taught on subjects such as 'Personal Development', 'Professional Development' and 'Therapeutic Care' to Social Care students.

Tom is a perpetual student himself and was constantly involved in his own personal development and acquired a number of additional qualifications during his many fulfilling years in CIT. He was actively involved in the CIT Drama group, acting and directing in many productions especially during the 1980s and 1990s. Tom was well known for ensuring the library amassed a wide range of literature and regularly completed book order forms for novels, drama and poetry as well as more core curricular material.

As a colleague and friend, we will miss his wonderful humour and insights. We wish Tom all the best in his retirement. As an avid and very talented artist, there is no doubt that his days will be filled.



Tom picture here with Pat Kelleher, Director Emeritus, CIT; Minister Batt O'Keeffe; Damien Courtney; and Jim Walsh.



Tom with his wife, Maireád and children, Josephine and Tadhg.

SPORTS AND SOCIETIES DAY ...

21ST SEPTEMBER



Ciarán Sheehan with Carmel Collins, Development Office and Vera Barrett, REAP, Strategic Innovation Fund, supporting the Cork Football All Ireland champions.



Shane Crowley and Megan Allin showcasing the African Drumming Society.

Sports & Societies Day took place in the Nexus, Student Centre with over eighty clubs and societies on display throughout the day. The Circus Society was awarded Best Stand with its dramatic exhibitions and juggling displays. There were over three hundred students present in the Nexus to welcome CIT student Ciarán Sheehan, who hoisted the Sam McGuire Cup in celebration of the fantastic Cork All Ireland victory.

MINISTER OPENS NEW SPORTS COMPLEX

ON THE 4TH JUNE, MINISTER FOR ENTERPRISE, TRADE AND INNOVATION, MR BATT O'KEEFFE, TD, OPENED THE NEW €1.7 MILLION STAND AT THE ATHLETICS TRACK.

The Stand was constructed with the aid of a Sports Capital Programme Grant, and co-funded by CIT, Cork City Council and Cork County Council. The development comprises a 1,070-seated stand complete with athletes' warm-up area beneath the stand, finished with an artificial running track surface and long jump. There is also a separate two-storey building for event operations. Cork City Sports was held in the new facilities on the 3rd of July.

Speaking at the launch, CIT President, Dr Brendan Murphy, said: "This track is an integral part of the overall sports structure of the Institute and this new stand adds tremendously to the multi sport campus ethos of CIT."

As well as catering for the competitive athletes who participate in CIT's many sporting Clubs, The Institute also has a big emphasis on participation, and on sport for fun, and this is reflected in the growing numbers who take part. The Sports Office runs a number of activities such as Aerobics, Circuit Training and Fit for Life Programmes.

In addition to the new stand area, CIT's sports facilities on campus include:

- A 1,200 seat fully-covered stadium that houses a two-tier gymnasium, meeting room, doctor's room and six dressing rooms that complements a floodlight Sand Based Multi Purpose Pitch;
- A Multi Purpose Sports Hall incorporating a state of the art Gym & Weights Room;
- Three full size Soccer Pitches, two Rugby Pitches and Two GAA Pitches;
- A Floodlit Full Size Astro Turf Pitch and a Synthetic Surfaced Tennis Court;
- A 3km Jogging Track encompassing the campus;
- A further Multi-Purpose Sports hall, with swimming, diving and sailing facilities at the National Maritime College of Ireland in Ringaskiddy;
- As well as all these, just off the main CIT campus there is a leisure and recreational complex with two swimming pools, Gym and Multi-purpose area.



Batt O'Keeffe TD, Minister for Enterprise, Trade & Innovation speaking at the official opening with pupils from St Luke's school in Douglas on the track.



Cork City Lord Mayor Dara Murphy; Dr Barry O'Connor, Registrar & Vice President for Academic Affairs, CIT; Michael Delaney, Vice President for Development, CIT; Batt O'Keeffe TD, Minister for Enterprise, Trade & Innovation; Dr Brendan Murphy, President, CIT; Cork County Lord Mayor Derry Canty; and Noreen Murphy, Cork County Athletics Board.



Centre back Kyle Smith

SOCCER A TEAM – MUNSTER CHAMPIONS

The Soccer A Team was crowned the Premier South Division winners for 2010. CIT managed to overturn league favourites UCC and UL before finally sealing the title with a comprehensive 4-0 win over Coláiste Stiofáin Naofa (CSN). Waterford IT and IT Tralee also compete in this league.

CIT started its campaign with a tough away fixture in UL, but won comfortably with a 2-0 victory through goals from Cork City players Brendan Cullen and Willie Heffernan. CIT's next task was the visit of arch rivals UCC. The game was a tight affair, contested by two excellent footballing teams. CIT managed to grab a late and deserved goal through bursary recipient James O'Sullivan to put them top of the league. Next up was IT Tralee; this looked an easier task on paper, but in this extremely competitive league that produces a very high standard year after year no fixture can be taken for granted. CIT squandered a few early chances and were punished on the counter attack. CIT slipped up for the first time with a 1-0 loss but remained top of the table. A tough tackling physical Waterford IT side were the next visitors to CIT. It became a tough contest but CIT's sheer class prevailed in the end and the outcome was a comfortable 2-0 win with goals from Gavin Moore and Eric Kennedy. CIT then travelled to CSN to take on their soccer academy. Only a win would guarantee that CIT would secure the league title. This game became a no contest within 20 minutes as CIT flew out of the traps and into a 3-0 lead, James O'Sullivan grabbed two goals, while fellow bursary recipient Colin Kearney got on the score sheet before Seán Foley rounded off the 4-0 victory. An incredible accomplishment and it also has to be noted that CIT only conceded one goal in these five games. Goalkeeper Wesley Tong and centre backs Kyle Smith and John Forest were outstanding and consistent throughout the campaign. Other excellent performers included Captain Brian Murphy, Mark Kearney and Shane Twomey.

Well done to manager Steven Neiland and the lads for a remarkable achievement for CIT Soccer.



VICTORIOUS INTERVARSITIES SQUAD

On the 26th October, CIT claimed a memorable first ever win at the men's Irish Hockey Intervarsities at Belfield, UCD defeating Dublin City University 2-1 in the final. Their victory will live long in the memory, particularly that of Captain Roger Gray, who bagged the second-half double to secure victory and finished the tournament with six goals to his name. Well done to team manager, Alan Good and all the team.



NEW RUGBY OFFICER APPOINTED

Brendan O'Connor is the new Rugby Development Officer to CIT. Contact details T: 021 4545769 | E: rugby.officer@cit.ie

KARTING NEWS

The Karting Club took home the honours in the second round of the CUSAI Karting Championships. Eric Calnan, who had secured the fast lap in round 1, added round 2 to his name, as he recorded the fastest lap on route to a fantastic win on his home track. Kevin O'Connell finished in third spot, sandwiching Shane McGrath of DCU in second place. In the team event, CIT's 'A Team' is leading the way at the half way stage with 103 points. DCU 'A' are seven points behind, with DIT 'A' in third place with a gap of 22 points between them and the leaders. DIT will be hosting the third round of the championship, provisionally pencilled in for February in Newry, with the final round scheduled for March 25th in the new White River track in Drogheda.



NOVICE BOXING INTERVARSITIES

A very successful Novice Boxing Intervarsities was hosted by CIT on the 12th - 14th November. Eoin Murphy, Captain and Chairman of the CIT Boxing Club, was crowned Novice Superweight Intervarsities champion. Eoin also won Silver at the University Championships in 2009 at Heavyweight.

GAA NEWS

Another hectic year lies ahead for the CIT Student GAA Club as the 2010/11 Academic Season is now fully up and running. The senior hurling and football teams have both had a change of management for the coming season. Graduate and former Fitzgibbon Captain Pat Mulcahy (Newtownshandrum and Cork) will take over the reins of the Senior Hurlers. To date the Hurlers have had a lively opening to their league with some credible performances and with many of the players still tied up with Club duties they are hopeful of a good run in the Fitzgibbon Cup Campaign.

The Senior Footballers have changed things around this year with Tony Leahy back at the helm. He will be ably assisted by Liam Hodnett, Brian Herlihy and Mick Dillon. This is a very experience selection committee and with a good opening to their league will be hopeful to bring back the Sigerson Cup to Lee side. With a number of the Cork Players who captured All Ireland Success available to the panel, as well as having a number of players from last year's Fresher side that reached the Div 1 Final, they will be confident in giving it a good shot.

The fresher's team look promising with a total of five first year teams (3 Football and 2 Hurling) entered into competition. In Hurling, the Division 1 side had victories in their opening 3 games while their football counterparts had the same and the 2nd and 3rd strings all look to be very comfortable in their groups. Pat Spratt (Football) and Frank Flannery (Hurling) are back in charge again this year. The Institute also fields Intermediate and Junior Hurling and Football teams, so its action all round for the Student GAA Club this year.

There is a vibrant women's section of the Student GAA Club. In Ladies Football, Ross Corcoran and Billy O'Connor are managing the side who have gained promotion to Division 2 of the Senior League and who will be trying hard to go one better than last year and win the Lynch Cup (Having won the Lynch Shield last year). In Camogie, last year's selection committee of Niall O'Mahony and Barry Day are back again and they are joined by Charlotte Kearny who graduated from CIT last year. The Club will compete in Ashbourne, a status they have maintained since winning the Purcell Cup in 2001 and they will also play in Division 1 of the Senior Camogie League.

The GAA Club also created another piece of history recently when it joined forces with rivals UCC to play Australia in the visitors warm up game for the Senior International Series. It was an opportunity for the students from both colleges to do their bit for charity with proceeds going to Alan Kerin's Zambie Fund (UCC) and the Brother of Charity Early Intervention Centre Ballincollig (CIT's GAA Club adoptive charity). Although the visitors won well on the evening it was a great showcase for the work done and indeed the talent on display at third level.

With a very active Club, it can often be a logistical nightmare to ensure that all these teams train and play, the facilities in CIT make it possible to allow all this to happen. The significant investment by the Institute into the sporting facilities is a huge factor in enticing the students to get involved and the student GAA Club is very grateful to all involved in making sure that funding continues. The club is also grateful for the cooperation of the academic and administrative staff at the Institute. No activity could and would take place if it were not for this support. It shows great maturity and wisdom by all those involved to not just acknowledge, but to physically back up the notion of holistic development of its students. While academic development still remains a priority and is openly encouraged and supported, society will benefit from having a student who is given the opportunity to take ownership and pride in all aspects of their lives. The Student GAA Club is a real platform for this to happen.



GAA CIT Senior 7's Side 2010

crossword solutions

ACROSS 1 Snooperscope 8 Embargo 9 Backlog 11 Epitome 12 Solaria 13 Shark 14 Asterisks 16 Spherical 19 Rigel 21 Earmuff 23 Sparrow 24 Set sail 25 Outlier 26 Double header

DOWN 1 Sabrina 2 Oarlock 3 Ptolemaic 4 Rebus 5 Cackler 6 Polaris 7 Seven Sisters 10 Glass blowers 15 Telescope 17 Horatio 18 Rhubarb 19 Reacted 20 Garnier 22 False

CIT Prize for **Innovation**

Prizes Valued at €10,000

Shed light on your ideas to harness a piece of the prize.

Your invention/business plan can lead to a chance to earn a share of the €10,000 prize money.

The Cork County and City Enterprise Boards CIT Prize for Innovation is a scheme that awards cash prizes to those whose inventions and business ideas are most creative, novel, innovative, and likely to succeed in the marketplace.

Students can use a project that forms part of their coursework for the year as their entry to the competition. Working in teams or individually students can attend free workshops that guide them in putting a business plan together.

The prize fund is split into the following categories:

1st Prize and coveted title of CIT Entrepreneur(s) of the Year = €4,000

Most Technically Innovative = €2,000

Best Business Plan = €1,000

Best Presentation Pitch = €1,000

Post graduate Award = €1,000

Best Exhibition Stand on Innovation Day = €1,000

CIT has striven to put entrepreneurship at the forefront and this year appointed its first ever Entrepreneur in Residence, Kieran Moynihan whose role includes seeding the undergraduate and post graduate community with entrepreneurship and leadership skills. Kieran will also sit on the adjudication panel of the competition that will take place on Innovation Day (Tuesday 8th March 2011) where the title of CIT Entrepreneur(s) will be awarded and the prize money presented.

CIT will also host the Cork Schools Enterprise Programme to coincide with Innovation Day. The Cork Schools Enterprise Programme aims to educate second level students about the realities of setting up and running a business.

Further information and relevant documentation are available at www.cit.ie



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