

Technological University Submission in Q4 2020



Governing Bodies and members of staff from CUA announcing they will make a submission to become a Technological University by end of 2020.

IT Sligo's ambition to become a Technological University was boosted with a very significant meeting of all three Institutes of the Connacht Ulster Alliance (CUA) in November. The Governing Bodies of IT Sligo, GMIT & LYIT, met in Donegal Town recently and made a commitment to the Department of Education & Skills to submit an application to become a Technological University in Autumn of 2020.

The three Institutes met as the CUA to clarify the next steps needed to secure University status. The governance, academic and organisational structures of the new TU were addressed as part of the planning by the three CUA institutions toward becoming a TU.

This is a very significant movement towards the CUA's joint ambition to become a Technological University and is the fruitful outcome of a seven year process.

So why do we want to become a TU?

- It's better for the region; economically and socially.

There is an imbalance across the country in terms of population distribution, levels of employment regional incomes and the education qualifications profile. The current pace of development of industry in geographical centres other than the West/North-West is not consistent with long term economic, social and cultural regional balance. There is an opportunity now to greatly improve the ability of the West/North West region to grow at a faster pace by providing local access across the region to university education. This will attract and cater for students of all levels and will optimise the prospect of career opportunities in the region with businesses whose development is supported by the new TU.

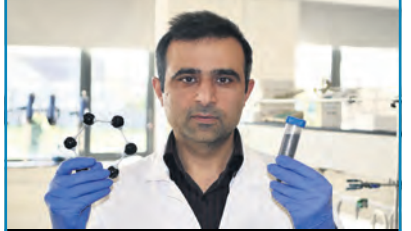
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Arturo Ui Play @ IT Sligo



Read about the performance on Page 23

IT Sligo Researcher Makes Top 1% in the World!



IDI Award for Creative Design Student



UN Artificial Intelligence Summit Coming to IT Sligo in 2020



International Day for People with Disabilities



Graduation 2019





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Minister Investigates Science Festival at IT Sligo



Sligo students Emer O'Brien, Dearbhla Hughes O'Brien and Alana Jordan at a CSI workshop at IT Sligo as part of Science Week with Minister for Higher Education, Mary Mitchell O'Connor TD.



Minister for Higher Education, Mary Mitchell O'Connor visited the Institute of Technology Sligo recently to investigate Science Week in the North West campus. The Minister attended workshops on Spectroscopy in a Suitcase and the CSI Experience as part of her visit.

Secondary school students from across Sligo, Leitrim, Mayo and

Donegal were joined by the Minister to learn about the science behind forensics and a wide variety of information on different aspects of Crime Scene Investigation.

The CSI Experience is an educational hands on practical activity, presented by two retired Garda Crime Scene investigators with over 50 years' experience between them. Retired Gardai Kieran O'Brien and Jim Gallagher

took the Minister's finger prints and explained the process of forensics in policing as part of the workshop.

The week-long event which came to a close this weekend, hosted over 30 events and attracted a record number of visitors this year making it one of the largest events of Science Week, nationally.

This year the Science Festival focused on Climate change and was titled "Climate Science – Transforming the Planet." The Sligo Science Festival is co-funded by IT Sligo, Science Foundation Ireland, AbbVie, Sligo Leader and Sligo County Libraries and works with schools across the northwest region

to encourage students to explore science and STEM based subjects and careers.

Speaking at the Minister's visit, the Head of Faculty of Science, Dr Jerry Bird said:

"Science Week has been running for nearly 20 years in Sligo and has grown in size and attendance each year. This year we have broken our attendance record and has become one of the largest Science Week events in Ireland. It is a great opportunity for students to explore the world of science in an informative yet educational way. We have had over 30 events this year with a range of talks,

performances and workshops aimed at all age groups and interests and we are delighted with the response from the public this year."

The week-long event included talks and interactive workshops including climate science, rocketry, Ancient DNA, Astronomy and Archaeological Science and concluded with a talk on the secret life of crows and the science behind vampires!



Abbvie's Bringing the Magic of STEM to Life in full flow at Hume Hall at IT Sligo.



Winner of the Science Festival Science Trail 2019 is Neil Gargan aged 6 from Sligo pictured here with his sister Erin aged 9 and parents Niamh and Tadgh. Neil was very excited to receive his prize of a weather station from IT Sligo Sustainability Officer, Fiona Britton (right).

EXTREME CAMPING ON ICE: SAVING THE HISTORIC HUTS OF EARLY POLAR EXPLORERS



"When I stepped out of the base and saw the sky and ice ridges. I felt as if I was part of the Universe"

Stefanie White, a conservator, arrived in Antarctica in 2013, exactly 118 years after the most famous early polar explorers Captain Robert Falcon Scott, Sir Ernest Shackleton and Carsten Borchgrevink. Mysterious, remote and with no native human population, Antarctica is mythic in both scale and scenery.

Researchers and scientists from all over the world have been travelling to Antarctica with the purpose of conserving and protecting the remarkable expedition bases of early Antarctic explorers.

Bundled explorers and the exploration of the Ross Region

Around the turn of the 20th century, in the so called "heroic-age" of Antarctic exploration (1895-1917), men risked their lives to reach the South Pole to push the boundaries of human exploration. It was something that nobody had ever done before.

Antarctic ice and its ever-changing terrain make Antarctica an attractive laboratory, despite extreme isolation and the potential consequences on the body and mind.

The average temperature is -49°C. By comparison, our freezers will only reach around -15°C.

White spent two winters at Scott base, the New Zealand research base in Antarctica, and one year in New Zealand, working for The Antarctic Heritage Trust, a New Zealand based-charity, responsible for the conservation of the historic huts.

She joined an exclusive team of scientists who went to Antarctica to conserve the belongings in the historic huts used by men whose bravery and devotion blazed a trail of discovery across the Antarctic desert.

White experienced Polar T3 Syndrome, a lack of fresh foods and not seeing the sun for six months, all while being "stuck" with her fellow scientists in a spaceship-like facility in the most unforgiving environment on earth.

"All men in these historic huts went through the similar things we went through, and they were in a small hut together. They also suffered from fatigue and memory loss. In their diaries we learned that some acted depressed. Food was a very important commodity, and fresh food was a dream", she explains the symptoms that all winter-overs experience due to decrease in thyroid hormone T3.

To early polar explorers the huts represented security and a place to rest.

"The hut is becoming the most comfortable dwelling-place imaginable. We have made ourselves a truly seductive home, within the walls of which peace, quiet and comfort remain supreme", Sir Robert Falcon Scott wrote in the diary during his last expedition in January 1911.

He was one of the most eminent and iconic explorers, credited with discovering that Antarctica is a continent. His story is one of endurance and tragedy. Scott led two expeditions to Antarctica and in 1911, he and his men perished on their return journey from the South Pole.

Antarctica is the only continent on Earth where human's first dwelling still stands, thanks to Borchgrevink's Southern Cross Expedition, the Antarctic Heritage Trust and conservators like White.

One of the more significant discoveries from Borchgrevink's Huts is an almost perfectly preserved 106-year-old fruit cake made by Huntley and Palmers.

Three crates of Mackinlay's whisky were found in Ernest Shackleton's 1908 hut. In 2010 they were excavated and in 2017 a homage to the original whisky was released.

Discovery hut is the most visited of the heroic-era huts, close to New Zealand's Scott Base and USA's McMurdo Base.

It is there where White conserved the last supper ever cooked in Discovery Hut- seal meat.

The huts were prefabricated for ease of

erection before being brought to Antarctica by ship.

Shackleton's Cape Royds Hut was erected below a ridge of a volcanic rock near the Adelie penguin colony. The construction of the hut was completed in ten days, but insulating it went for another three weeks.

"The walls were strengthened with iron cleats bolted to the main posts and horizontal timbering, and the rood principals were provided with strong tie rods", Shackleton wrote in his book *The Heart of the Antarctic*.

Scott's Cape Evans Hut had a darkroom for the expedition photographer Herbert Ponting. There were also stables that housed 17 ponies and seven mules in 1912.

"The hut is presented to look like as if Scott and his men literally stood up and walked out

of the door", White describes the "real time capsules". She worked on the fabric of the huts and the various objects held within and was part of the team that completed the project. The conservators, however, still go back to monitor.

The expeditions of early polar explorers, which each lasted at least two years, would not have been possible without the men whose names are often overlooked. Ireland's greatest Antarctic explorer, Tom Crean is one of those men.

Crean and Shackleton served together on Scott's Discovery Expedition.

Crean survived all the polar expeditions he was a part of and upon his return to Ireland, he started a family and opened a South Polar Inn in Co. Kerry, where he is from.





Conserving the turtle soup

White still remembers the dense smell of seal blubber, canvas and leather upon entering the huts, as well as the penguin colony residing beside the Shackleton's hut.

"They stink of wet and fur. I've cleaned penguin guano off so many objects", White reminisces the time when she was conserving the Terra Nova Hut at Cape Evans on Ross Island.

Her role was to preserve the huts and objects associated with the historic men. The objects included cups, plates, cutlery, food carefully selected to last, such as turtle soup and chocolate; skis, pencils, books, gear and clothing; towels, creams, medicine, some of which included cocaine and heroin, and other drugs that these historic men brought to help them get over the winter-over syndrome.

Without the intervention of professional conservators such as White, the huts and their contents would stand no chance of surviving indefinitely.

Their work prolonged the decay of the materials to maintain the history and authenticity of the historic huts and related objects.

"If there was a fingertip left on the Scott's cup, all of that had to be perfectly preserved", White says.

She conserved many tins of turtle soup, a vital part of a polar explorer's diet.

Pemmican, ground meat in fat, and biscuits were also on the menu.

"Before beginning the process of conserving a tin of a turtle soup, I had to understand the frozen environment in which that tin will remain. If I thought that the contents of the turtle soup will spill out in the next 100 years, I had to decide whether to take the contents out or not. I couldn't risk the turtle soup spilling into the Antarctic environment on any level", she explains.

White also had to study what chemical composition the tin is made of, how that chemical deteriorates in a frozen environment and how to prevent the decay. In the end the turtle soup had to be as original as possible, she reveals the process of preserving the objects in the huts.

Last untouched wilderness comes at a price

In the coldest, windiest and driest continent on earth, double the size of Australia, the landscape is as harsh as it is magical. It was the everyday connection with the Universe that White enjoyed the most. The South Pole was the closest she got to space while still standing on earth.

Shimmering, twisting, and glowing in the night air, the Southern Lights reminded

White that not all is dark in the most remote location in the world.

Witnessing the glorious multicoloured natural phenomena is something she recalls vividly. "If there was Aurora, we turned off the lights at the base to minimise any kind of pollution. It was like a moving fabric in the sky".

Living and working in the last untouched wilderness on earth comes at a price.

Day becomes night becomes day, with the line of burnt orange on the horizon.

Midwinter is the biggest event in the Antarctic social calendar. The bases scattered across Antarctica celebrate 21 June by exchanging greetings.

"It's like Christmas on Antarctica!", White says excitedly.

However, in the depths of the winter darkness, she and other residents experienced a disturbing state. In the midwinter period all winter-overs enter the state of "Psychological Hibernation".

Isolation and darkness inevitably translate into mental pressure that leads into anxiety, fatigue, insomnia and erratic temperaments.

Some get hit harder by isolation and depression than others.

How did White cope?

By learning the basics of vehicle maintenance and learning French. She also kept a journal and trained in the gym.

"I put a lot of measures in place to make things as healthy as possible to survive", White describes how she kept herself busy.

When Captain Scott embarked upon the Terra Nova expedition in 1910, he took with him two "Monarch Gramophones" to boost the team's morale. He had also taken a piano for entertainment purposes during the long Antarctic winter.

The task of transporting a piano from an icy dock in Antarctica to the hut might seem ludicrous considering the lack of heavy machinery, but for these men the music was a reminder of the civilization they left behind.

Scott's team even established the "Royal Terror Theatre", putting together plays, reviews and concerts.

"I can well believe, however, that our music smooths over many a ruffle and brings us to dinner each night in that excellent humour, when all seem good-tempered, though 'cleared for action' and ready for fresh argument", Captain Scott wrote in his diary.

Polar T3 Syndrome or the "Antarctica blues" is still a riddle, one that NASA is working to decipher.

Another part of Antarctica's draw is that it's pristine.

It's largely untouched and inhospitable.

The Ross Sea is the world's biggest protected marine area, often referred to as the "last ocean".

Seabirds, whales, seals and penguins are the only permanent residents in that land of snow and ice.

White and other residents had to undergo rigorous physical and mental screenings prior to the expedition's departure because there's nowhere to go if somebody gets injured. Frostbite, snow blindness and hypothermia are real dangers caused by prolonged exposure to cold temperatures.

"If one winters-over in Antarctica and there are no flights, it is extremely difficult to get medical attention, so specialist medical reports must confirm that you will not become ill while on the ice", White says.

The green survival bag had to be carried by every team member to improve the odds of survival if the worst came to the worst.

An added problem is the static electricity. "If you do not de-charge, you can blow up electrical equipment and hurt or "zap" yourself by touching metal or another person.

We were de-charging our bodies by hitting metal whenever we had the chance", she explains. Even with all the technology available, Antarctica remains deadly for anyone who goes there.

Protecting and promoting heritage along the Wild Atlantic Way

Upon her return to Ireland, White was no longer looking out of the window wondering if the day is getting longer. There was another view from her sitting room that was causing her unease.

"Every day I see the remains of a megalithic passage tomb falling into the sea from my home in Bundoran", she says.

For somebody who has the unique experience of working in extreme environments and who understands the

effects of high winds, salt, temperature and fluctuations in humidity on archaeology, White knew she had to act.

Preserving heritage around the globe inspired her to tackle the heritage of her own country.

She decided to apply her extensive work experience in heritage management and conservation to the conservation needs of Ireland's west coast.

White is currently in the first year of research at IT Sligo, as part of the Archaeological Programme.

Through her research project "Protecting and promoting archaeological sites: best practices for sustainable tourism along the Wild Atlantic Way", she wants to protect and promote archaeology by developing guidelines, to assist archaeologists and other stakeholders, such as tour operators, heritage professionals and government bodies, to manage as many as 89,000 archaeological sites along the Wild Atlantic Way.

No such guideline has yet been developed.

Stefanie White has two undergraduate degrees from The University of St. Andrews, Scotland and Cardiff University, Wales. She has a Masters from The University of St. Andrews, Scotland and Queens University of Belfast.

She conserved archaeology in Greece, England, Turkmenistan and Iceland, and worked in heritage management in New Zealand and the Balkans.

She lives with her husband and a three-year old son in Bundoran, Co. Donegal, in the most northern county of the Wild Atlantic Way.

Stefanie was interviewed as part of IT Sligo's new podcast series; "Thought Leaders: A closer look for the curious." To listen to the podcast please go to itsligo.ie/thoughtleaders



Frozen in time: Inside one of the historic huts Stefanie has helped to protect in Antarctica.

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It's first year student induction. We were on our tea break when I receive an email with the line "I'm wondering would you be interested in an all-expenses-paid trip to Taiwan in November?". Of course I jumped at the chance to go. Who wouldn't turn down an all-expenses-paid trip to anywhere, never mind Asia? The trip was a week-long tour of western Taiwan ending with the Global Youth Trends Forum held over two days in Taipei. The forum itself was centred around how youth are affected today by globalisation. IT Sligo, Letterkenny IT and Galway-Mayo IT formed the Irish team with three from each college. From Sligo there was me, Matthew and Simran; from Letterkenny we had Chloe, Sarah and Victoria (our head of delegation); and from Galway we had Hannah, Saidhb and Colin. During September and October, we messaged each other but never met the other people from the different colleges until on November 3rd we checked in for our flight to Taipei with a stopover in Dubai. Each flight was 7 hours. Connecting in Dubai was also very smooth compared to other airports I have been. As Ireland is visa exempted in Taiwan, immigration was so easy to go through. No questions apart from "Passport?". They stamp you in, and that's it. We were met by a representative from the youth ministry in Taiwan in arrivals who then brought us to our first of several hotels for the week. As it was late when we got there, we had dinner and went to bed.

The next morning, November 5th, we met our two guides for the week, Roro and Anne. They took us on a full-day tour of Taipei. It was also a day to get to know the other

people in our delegation as up until now we had just been travelling so far. If you were to compare Taipei city to Dublin, the buildings are at least twice as tall if not higher; the main roads are not your typical 2 or 4 lanes wide, the average is 8 or 10. The freeway around the outskirts of the city is built up over everything from parks to apartment blocks. With the extra heat, humidity and exhaust fumes, the air felt a lot heavier. At night we went to the night market. It's hard to exactly describe a Taiwanese night market. It's an area of narrow streets full of small shops and stalls selling all sorts from clothes and shoes to street foods like bubble tea and octopus balls. Let's just say the octopus balls did not go down too well. After a bit dinner we headed back to the hotel as we had an early start in the morning.

The rural areas of Taiwan are so beautiful. The land is quite flat so that you can see for miles around. By this stage we were getting to know people from the other 26 delegations. For dinner we had traditional beef noodles. They were super tasty, and a must-try when in Asia.

Over the two days of the forum, we got to meet Taiwanese students and talk to them about our culture, experience other countries cultures and discuss our action plans in our categories. As we were given the topic of regional revitalisation, we gave a presentation on the Wild Atlantic Way and asked the students in attendance, what can we do to reduce pollution on the Wild Atlantic Way. They gave us ideas that we put into an action plan. The students then voted on which action plan they felt was the best, and we won the vote. We were delighted to



have won and with only meeting as a group for the first time one week previous it was a surprise. On our final day in Taiwan, we went to Taipei 101. We got terrific views of the city. You got a sense of how big it really is and the complete contrast of the forests in the hills compared to the rest of the city. We also squeezed in some time for a little bit of shopping before heading to the airport. Saying bye to Roro and Anne was hard. Even though we had only known them a week, it felt like we had known them for

years. Two more flights later, in Dublin, the same thing happened when saying bye to the others. It's surprising how quickly you can get close to people in short spaces of time.

Overall the experience was unbelievable. I met so many new people and learnt so many new things. On Facebook, my friends increased by about 50. To anyone out there considering either a short cultural experience or a semester abroad, I would seriously recommend it. The benefits will totally outweigh the disadvantages of going.



External Partners Have their Say on TU



A Technological University related consultation session open to all staff was held in November at IT Sligo and focused on External Engagement. Business leaders and senior external stakeholders led a panel discussion on how a Technological University can and should drive regional development. A number of speakers drawn from various sectors across the region participated in the very informative session including:

Elaine Murphy, Live Tiles
Ciaran Hayes, CE, Sligo Co Council
Niall Tracey, Director of Marketing, Failte Ireland. Jag Jag Gunawardana, New Frontiers Programme

The expert panel was joined by President of IT Sligo Dr Brendan McCormack and Chaired by IT Sligo's Governing Body Chairperson, Niall Donnellan.

The panel were very excited about the future of a Technological University in the region.

Elaine Murphy, Senior Vice Principal of LiveTiles a Global tech company founded in Australia, said; "When we first sat down with LiveTiles they did question why we would set-up where a university was not close by to pool your talent?...there's an emphasis, especially in multinationals, to have access to a university. By having a TU we are future proofing in a combination of enterprise and academic led research."

Niall Tracey, Director of Marketing, Failte

Ireland said there was a very real social benefit to achieving a TU; "Having a University raises the profile of the region. Young people stay longer and live and prosper and hopefully build a life in what is a beautiful part of Ireland."

The event concluded with a Q&A session with questions from staff to the panel. Ann Higgins, TU Project Manager at IT Sligo thanked all those who attended and especially the panel for their time and valuable contribution.



Letterkenny Institute of Technology hosted a meeting of the Connacht Ulster Alliance (CUA) Heads of School/Faculty focusing on collaborative projects involving all academic disciplines. Regular meetings are planned across the CUA Institutes as we continue our work together to become a Technological University.

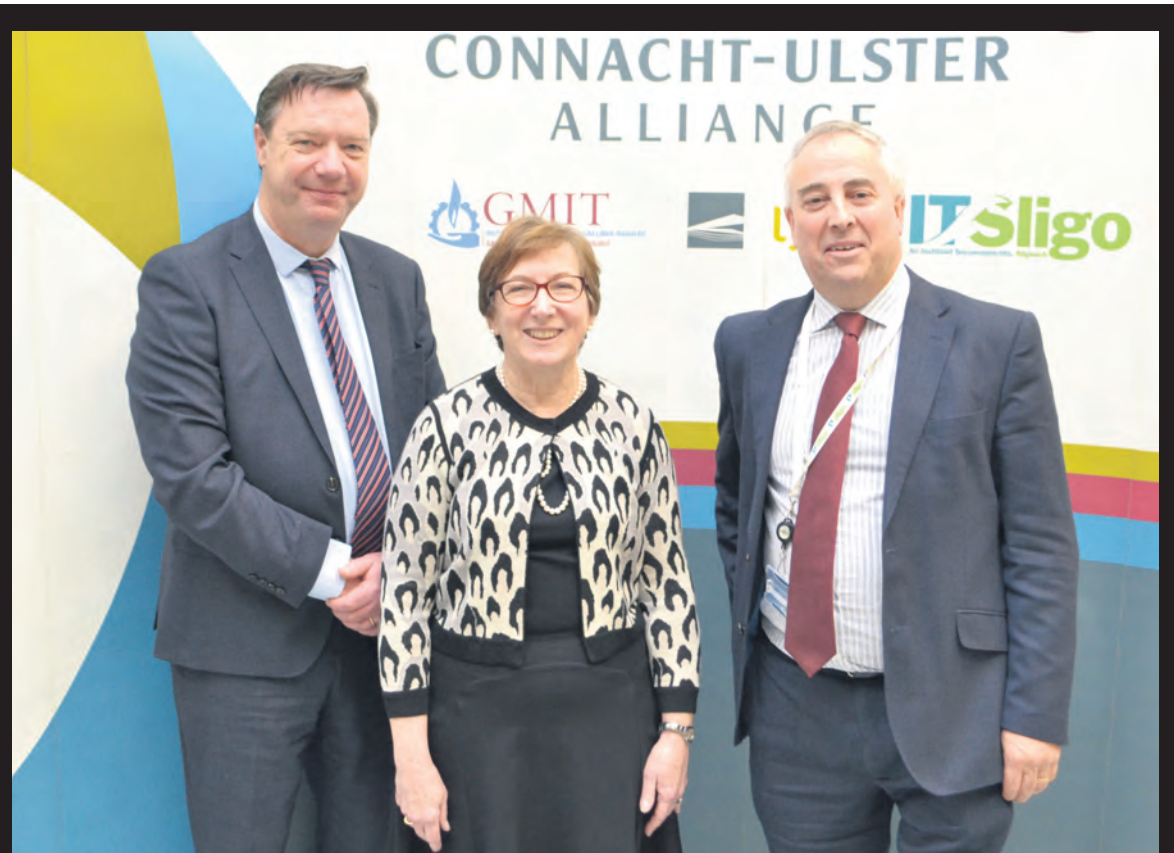
Technological University Submission in 2020 Q4

Continued from the front page

A TU in the region will partner with other education providers, state agencies and companies to drive regional economic growth across the West/North-West.

IT Sligo will join with GMIT and LYIT to become a university for the region, with eight campuses stretching from Malin Head to Clare. Access to higher education will be easier and students will avail of a wide range of expertise and increased resources, and will get a university award.

Further information is available at cualliance.ie. Meetings are planned by the CUA early in the new year.



With agreement reached on the submission date in Q4 2020 and the probability of achieving TU designation looming large on our horizon, staff engagement on the shaping of our TU was conducted through a Staff TU consultation event, held in Hume Hall, IT Sligo. Keynote speakers at the event: Research in a changed landscape - Dr John Bartlett, Head of Research, IT Sligo and Regional engagement, linking local and global - Professor Ellen Hazelkorn, Professor Emeritus, TU Dublin. Sean Duffy, Project Manager, LYIT and Neville McClenaghan, Vice President, GMIT were notable attendees.

IT SLIGO CELEBRATE 50 YEARS IN 2020

IT Sligo will be 50 years in existence in 2020 and to mark this milestone in the regions history we will be celebrating the past 50 years with a number of events throughout the year, looking at our past and projecting our future. Since the foundation of the Institute in 1970, the institute has progressed from being a Regional Technical College with 100 students and 10 graduates (at Apprenticeship and Certificate level) to being today an Institute of Technology with 7,000 students with graduates across all levels, from apprentices to the recent graduation of ten students who attained Doctorate degrees. In that time, the Institute has grown in terms of scale, facilities and in reputation to being recognised as one of Ireland's leading Institutes of Technology. It has been a leading driver of development over that time in the Northwest region, in terms of society, economy and culture.

The IT Sligo 50 celebrations in 2020 will recognise the achievements of the Institute and will acknowledge the commitment of the regional community in supporting the Institute over the years. It will reflect on the achievement of the graduates of the Institute, and provide an opportunity to promote the Institute as a place of life long learning and regional development. In addition to specific events, the year of celebration will also see legacy projects that will materially contribute to its ongoing development as an engine for transformation in the region as we move towards a Technological University in 2021.

We invite everyone to join us in these celebrations and especially call on our Alumni to re-connect and share your experiences. For further information please visit www.itsligo.ie/50

IT Sligo 50

An Institiúid Teicneolaíochta Sligeach



IT Sligo Laboratory in 1970's



The computer committee of Sligo Regional Technical College, pictured with Minister of State, Ted Nealon, at the recent official opening of a new £100,000 computer centre. From left, John O'Donnell, Brian Woods, Terry Young, Jim Gahan, Gerry Cunningham, Stephen McDermott and Tom McCormack



Coiste Gairm Oideachais Bhaile Shligigh
Town of Sligo Vocational Education Committee.

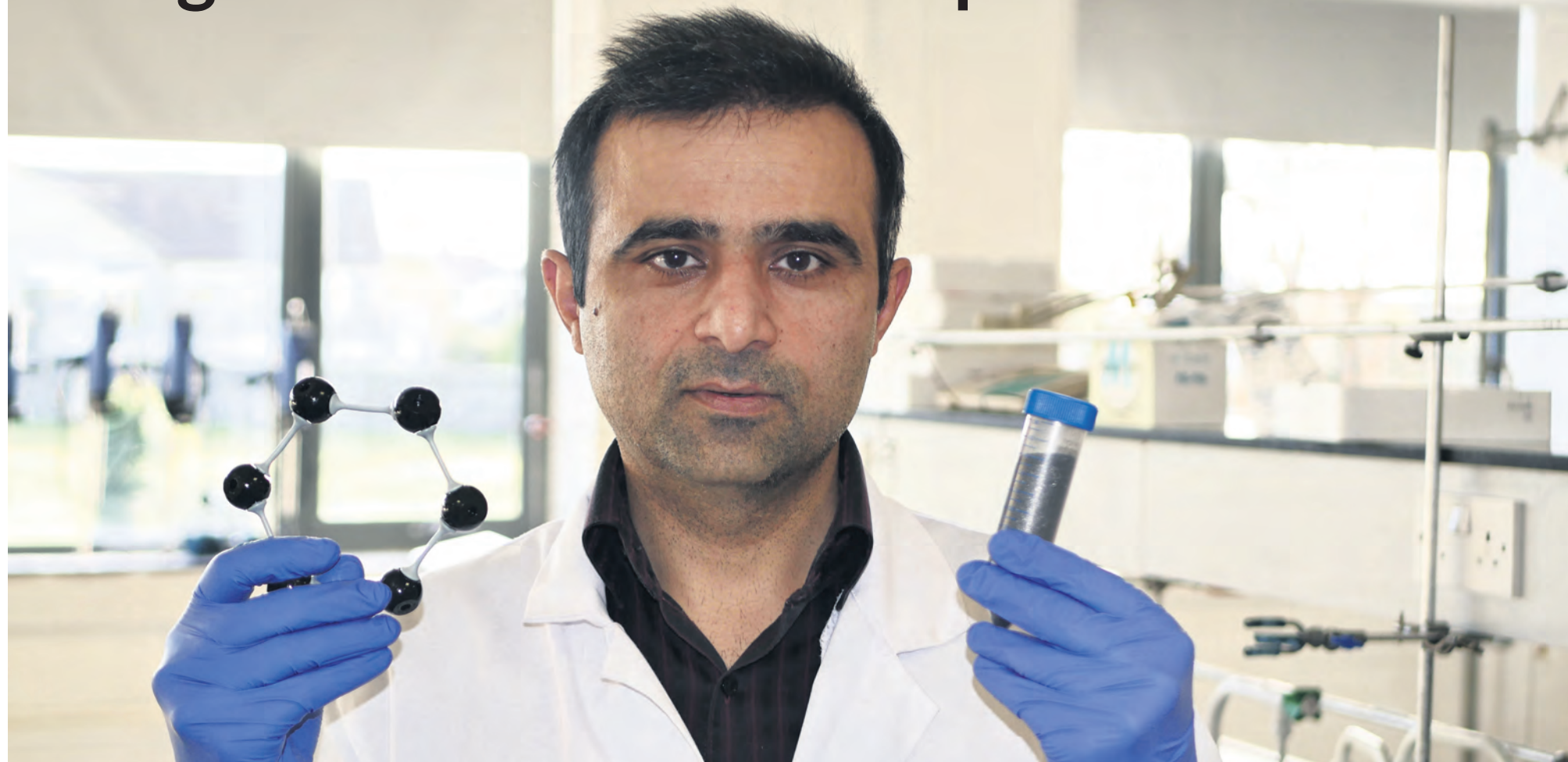
Regional Technical College Sligo

Some proposed full-time courses
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First RTC Sligo prospectus in 1970

IT Sligo Researcher Makes Top 1% in the World!



Dr Umar Khan, recognised as one of the top researchers in the world.

IT Sligo is proud to announce that one of our lecturers has been named Highly Cited Researchers, according to the Highly Cited Researchers 2019 list from the Web of Science Group.

Recognizing the world's most influential researchers of the past decade 2019, the highly anticipated list identifies scientists and social scientists who produced multiple papers ranking in the top 1% by citations for their field and year of publication, demonstrating significant research influence among their peers.

IT Sligo lecturer, Dr Umar Khan joins the top 1% of researchers in the world from some of the biggest universities including, Harvard, Yale and Cambridge. Dr Umar Khan is currently working on exfoliation of nano graphene and other nano materials. This is a stretchable,

flexible and wearable material with sensors. The possibilities for this new invention are very exciting. It has many applications from development of electronics to wearable health monitoring attire that can monitor breathing, temperature and pulse. Dr Kahn demonstrated its versatility and usefulness by injecting the solution into a €35 desktop inkjet printer which was then able to print graphite based nano structures on paper that can be used for almost any purpose.

The other aspect of his work is commercial application of these material in the field of biomedical devices, sensors, polymer reinforcement, stretchable wearable electronics and printed electronics. In his work he has demonstrated that these nano graphene can be exploited on industrial scales. They have demonstrated that addition these tiny

materials to polymers can alter the properties of polymers which has never demonstrated before by any material.

Dr. Khan said “ Nano graphene is wonder material. For instance, the addition of minute quantities of graphene to silly putty can make it a highly sensitive sensor so much sensitive that it can feel/measure a spider walk on its surface. Also mixing of a fraction of % graphene to a polymer can increase its strength by many folds. Very effective filter membrane can be using graphene. These are some of examples of graphene uses which we have worked on. There many more applications.”

Dr Khan's work has been published in world leading scientific Journals e.g Journal of Science, Nature, Advance functional Materials and ACS NANO.



Minister Briefed on Online Learning



Brian Mulligan demonstrates online recording booth to the Minister.



The Minister was briefed on IT Sligo's Online learning success story during her recent visit. Over half the Institutes 7,000 students study online which enables people to "Earn & Learn" throughout their career.

The Minister took the opportunity to meet Industry partners and students who study online. Among those in attendance was Managing Director of McSharry Foley Insurance, Siobhan McSharry with apprentice of the IT's Insurance apprenticeship programme with the Insurance Institute of Ireland; Mikaela Sheehy. Speaking to the Minister Mikaela explained how beneficial online learning can be; "Online learning is really enjoyable and the apprenticeship is a real bonus.

Many of my friends who have come out of college with a degree, struggle for a few months to find a job in industry as they don't have the experience. I gain the experience as I work and earn money at the same time. I also have a real sense of loyalty towards the company I work for because I know McSharry & Foley have invested in me and my future."

International Day for People with Disabilities



As part of International Day for People with Disabilities, founder of IT Sligo Disability Inclusion and Sports Club, Vicky Matthew launched a new initiative to support students and staff with disabilities and medical conditions. The specially designed cards by Vicky have dual usage and can be handed over to staff at the canteen, shop or in class to inform people they need more time to speak or express themselves. The other use of the card is for people with a hidden condition to use the disabled toilets. The new cards will be available in the new year through an assessment of needs. We would like to thank all those who took part on the day and for those who came along to highlight services available in IT Sligo and across the region.



Brendan McCormack speaks with student Vicky Matthew about her new card.

Ireland's First Online Part time M&E Quantity Surveying Programme launched through IT Sligo and SCSi partnership



IT Sligo in collaboration with SCSi (Society of Chartered Surveyors Ireland) are delighted to announce the launch Ireland's first innovative on-line part time Post Graduate Certificate in Mechanical and Electrical Quantity Surveying, which is now taking applicants for a January start. The formal launch took place at a well-attended CPD event at IT Sligo recently which had industry, students and academic staff present. Staff from Kirby Group and King and Moffatt were involved in the programme development and also spoke at this launch event. James Lonergan, Director of Education with SCSi highlighted that, 'we are delighted to address the current industry demand through this partnership with IT Sligo. Upon completion of this course, graduates will be eligible for enrolment onto the SCSi Assessment of Professional Competence programme.'

Trevor McSharry, Head of Department of Civil Engineering and Construction at IT Sligo said, 'this new programme, which builds upon our successful online suite of quantity surveying programmes, will be attractive to Quantity Surveyors, Engineers,

Architects, Construction Managers and other related professionals working within the built environment. Graduates will also be eligible to progress to IT Sligo's part time online Masters in Project Management and gain exemptions.'

Ruairi O'Driscoll, Programme Chair and QS lecturer emphasised that 'feedback from our online part time students is extremely positive. Our delivery model allows full flexibility for people to upskill in their own time and place, while maintaining work and family life commitments without unnecessary travel.'

Lectures are delivered live in the evenings (Monday to Thursday) and the student can access academic material (lecture recordings, notes) remotely. The assessment strategy is a blend of both continuous assessment and end-of-semester examination (which can be undertaken at exam centres around the country (Sligo, Dublin, Cork,) or via online invigilation - there is no requirement for on-campus attendance for classes or examinations.'

For further details please contact admissions@itsligo.ie or see www.itsligo.ie

IT Sligo Lecturer signs major publishing deal with Faber

Una Mannion: her debut novel, *A Crooked Tree*, will be published in spring 2021

Una Mannion, a lecturer in Writing & Literature at IT Sligo has signed a major new publishing deal with Faber & Faber. Una, who won the Emerging Poetry prize at the 2017 Hennessy New Irish Writing Awards, joins award-winning writers Anna Burns, Sally Rooney and Sebastian Barry.

Mannion's debut novel, *A Crooked Tree* is described as a "devastating journey through family life in suburban '80s America, which explores how actions have terrible unintended consequences."

In a recent interview with the Irish Times, Mannion said: "I am utterly thrilled to be getting published; that it is Faber is overwhelming. So many of my writing heroes are Faber authors. I am deeply humbled and grateful to Louisa Joyner and her team for their commitment to my book and their tremendous act of faith. It still doesn't feel quite real."

Publishing director Louisa Joyner, said: "This is an utterly captivating novel, populated with finely hewn characters. It has the kind of propulsive force that means you might have to remind yourself to breathe. It's a joy to be welcoming Una Mannion to the list and we look forward to sharing her mesmeric debut with its irresistible pull."



Lecturer Una Mannion who has secured a 2 book deal with Faber & Faber pictured here when she was awarded Hennessy Emerging Poetry Prize in 2017.

MSC IN COMPUTING (DATA SCIENCE)



BE READY FOR THE FUTURE OF WORK

The new part-time online MSc in Data Science offered by IT Sligo prepares graduates for future work opportunities across multiple industry sectors. It combines techniques from mathematics, statistics, information theory, computer science and artificial intelligence with applications in a wide variety of fields. Our unique Masters programme combines six taught modules with a strong research project, where students are given the opportunity to implement their learning within a real-life context.

COURSE LEVEL

Masters Degree (Level 9)

COURSE OVERVIEW

The programme is delivered part-time online over two stages.



STAGE ONE

The programme consists of six taught modules, delivered over three semesters. Subjects included are Applied Statistics and Probability, Programming for Data Science, Machine Learning, Applied Linear Algebra, Data Analytics and Visualisation, Programming for Big Data.

A module in Research Methods will be provided to assist students in stage two.

STAGE TWO

A research project which is designed to develop a real and tangible solution, relevant to academic requirements, the student's career aspirations and/or employer's needs.

Students will be able to propose their own project areas, subject to agreement with their supervisor. Work related projects are encouraged.

CAREER OPPORTUNITIES

Industry requires increasingly complex and technical roles, such as Data Scientists, to implement and assess data models for data driven decision making. Skills such as Artificial Intelligence and Data Science are highly sought after in manufacturing, financial services, retail, health & education sectors.

ENTRY REQUIREMENTS

To qualify for entry to the programme a standard applicant must hold a Level 8 Honours Degree 2:2 or above. While it expected that most applicants will have an honours degree in Computer Science or related discipline, due to the multidisciplinary nature of Data Science an Honours Degree in Engineering, Business and Science will

be sufficient. However, some programming knowledge (Ideally Python or C/C++ or R) and mathematics knowledge are prerequisites to the course.

A recognition of prior learning (RPL) may allow students, to qualify for the programme.

COURSE DURATION

Part-time over 2.5 years.

COURSE FEES

Total fees are €9,000 or €4,500 per year over 2 years.

FUNDING

Sligo Chamber Skillnet may be able to partially fund programme fees. For further details please contact gcourtenay@sligochamber.ie

Scholarships & Bursaries are available from IT Sligo. Further Information is provided to the applicant after submitting an application.

WHY CHOOSE IT SLIGO?

IT Sligo are the leaders in online learning and we continue to work closely with engineering, manufacturing, medical, biopharma and technology partners to develop innovative Masters relevant for the future of work.

WANT TO KNOW MORE?

For further details please see www.itsligo.ie/datascience

Contact: Donny Hurley

Email: hurley.donny@itsligo.ie

Tel: + 353 (0)71 931 8511

“Thinking of Going to University? Think IT Sligo!”

IT Sligo will be submitting its application to become a University in 2020 and if you apply to IT Sligo now, you will qualify with a degree as a University Student. With 50 years' experience IT Sligo

has built a reputation as a centre of Academic Excellence and International Research. Working closely with Industries in Ireland and abroad, our students now have a 94% employment rate, one of the

highest in the country. As you make your CAO choice, IT Sligo is offering information events throughout January to help you with your application, no matter where you are thinking of going.

CAO Information Evenings for Parents

IT Sligo was delighted to host a number of information evenings for parents across the region to help provide information on the process of going to college. Topics such as “How to apply to

the CAO”, “What supports & funding opportunities are available”, “Skills shortages & market opportunities” were discussed.

The CAO application process is now

open. If you have any questions please feel free to phone 071 93 37325 or email schoolsliasion@itsligo.ie where we will be happy to help with any queries you might have.



Campus Tours

IT Sligo's campus tours are ideal for students and their families who are considering joining us at IT Sligo and would like to see our campus, explore the facilities and find out more about their chosen course areas.

What does this tour include?

The tour will commence in Reception of the Main Building with a brief

introduction of our programmes, facilities, student life and supports available. The tour includes a visit to the Yeats Library, followed by a walk through the Institute's extensive campus – Faculty of Business and Social Sciences, Faculty of Science building and the Faculty of Engineering and Design.

Visitors will also see our athletics track, playing pitches and sports facilities at the

Knocknarea Arena, the Innovation Centre, Student Lounge and finish in the Student Support Services Building.

When are the tours?

Tours are offered on the first Friday of each month at 2.00pm. Your campus tour will last approximately 1 hour. Please e-mail schoolsliasion@itsligo.ie to book your place.

Make your Choice - January Information Evening

IT Sligo will host an Open Evening on Tuesday the 14th January 2020 from 5:00pm - 8:30pm on campus. Everyone is welcome.

There will be talks and information to help you make your choice on what to study & why IT Sligo could be the best fit for you.

There will be information talks on every faculty to help provide you with insight and inspiration into the various careers in which we can help you succeed.

Talk to your lecturers on what you can expect to study on each programme. There will be information for secondary school students and their parents, PLC students wishing to continue their studies and mature students interested in going to college. We will also provide information on the various apprenticeship programmes we teach and also the flexible online study options available.

Learn about the various support services available to our students, what

fees to expect, the various grants that are available and the accommodation options in Sligo town.

We will be joined by study coach Sean Lally to help give students tips on making the most of their time as they prepare for their leaving certificate.

This is an evening not to be missed. See you on 14th January 2020 from 5:00pm. Please contact schoolsliasion@itsligo.ie or 071 93 37325 for more information.

Information evening for mature learners



An information evening for adults who are interested in returning to education or taking up a course at third level for the first time will be held in IT Sligo as part of our Open Evening on Tuesday 14th January from 5pm.

The information evening will include presentations from the IT Sligo Access Officer on the supports available for mature learners entering third level education and the range of courses available at IT Sligo.

There will also be a questions and answers session where individual questions will be taken.

IT Sligo Access Officer Linda McGloin is encouraging anyone who is aged over 23 and interested in exploring their options to attend the information evening: “A mature student is classified as anyone who is aged over 23 on January 1st of this year. Anyone who is that age or older is eligible to return to education as a mature student.

“The CAO deadline on February 1st is fast approaching and now is the perfect time for people to investigate all the options open to them. This meeting will provide an opportunity for anyone interested taking up a course in September to find out what supports are available to them and what steps they now need to take to get applying.”

IT Sligo is on the Road

Our schools liaison team and lecturing staff have had a busy semester visiting many school talks and career events across the region. We look forward to many more events next semester where we hope to see you along the way. Please get in touch by phone 071 93 37325 or email schoolsliasion@itsligo.ie to find out more about the nearest event to you.

IDI Award for Creative Design Student

IT Sligo graduate Paul Roper has won his second major award in design in as many months! Paul Roper was shortlisted by the Institute of Designers Ireland (IDI) at the annual design awards in Dublin last week alongside fellow IT Sligo Design Graduate, Jamie Keaveney who was shortlisted for his design of a habitat for bees and received a high recommendation from the IDI.

Roper was recognised for not one but two of his designs in the Industrial and Consumer Products category; The LockOn trailer hitching device and his re-design of the clothes peg, MagPin for which he was awarded the IDI award. The MagPin was also the overall winner in the Universal Design category, which is regarded as one of the most prestigious and difficult areas of design.

This is his second major recognition in design. The IT Sligo graduate was last month identified as one of

the top graduate designers in the world for his design skills by the Global Undergraduate Awards. After a rigorous and lengthy judging process led by over 400 expert academics worldwide, Paul made first place in Ireland and Europe and is top four in the world in his category.

Commenting on the design award Nevil Walsh his Creative Design course lecturer at IT Sligo said; “It is great for IT Sligo to have two graduates recognised by the IDI and for Paul to receive two awards in two categories shows the calibre of our design students.”

Speaking after the awards, Paul thanked the IDI for recognising his design: “I can’t believe I have received these awards. I am passionate about good design and to think I have been recognised with the IDI award for best universal design and came fourth in the world last month is just incredible.”



Creative Design Graduates Jamie Keaveney and Paul Roper at the IDI awards in Dublin.

UN Artificial Intelligence Summit Coming to IT Sligo in 2020



The United Nations AIforGood Summit will be hosted in IT Sligo it has been announced. The international event is to be held in Ireland for the first time after Sligo-based Intelligent Workplace company, LiveTiles, agreed with the UN to choose the North West as a feeder conference. The three day event will focus on how artificial intelligence can be used for good and will feature some of the world’s leading experts in AI.

Speaking at a recent meeting with LiveTiles, President of IT Sligo, Dr Brendan McCormack welcomed the announcement: “This is great news for the northwest region and an honour for IT Sligo to host such a major international event on our campus. Ireland and especially Sligo in recent years, are held in high esteem across the world when it comes to technology and we hope

this major event can further strengthen our reputation for technological innovation”.

AIforGood Summit Sligo is the first ever satellite event organized outside the annual global conference in Geneva and will have 3 main streams;

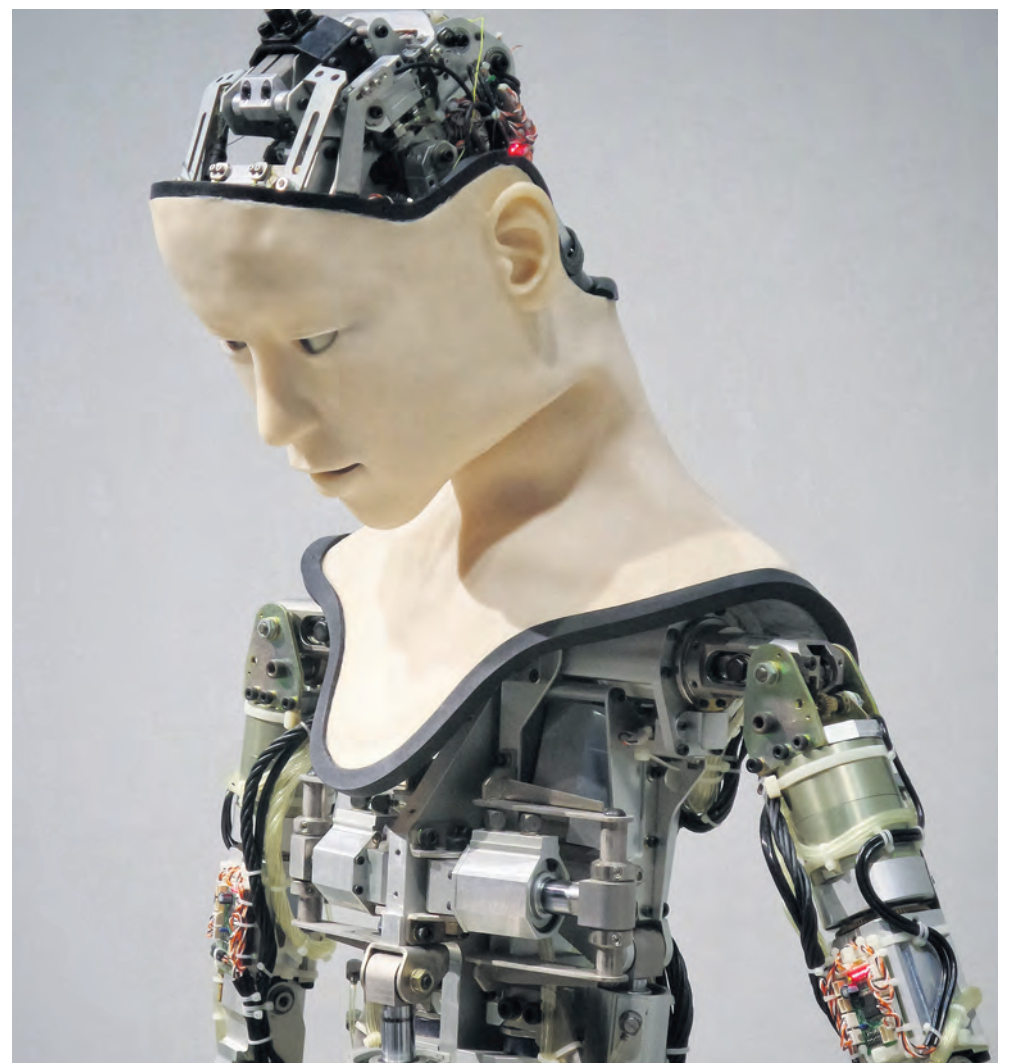
1. AI FOR EVERYONE
2. FUTURE OF WORK
3. FUTURE-READY

AI for everyone will look at how artificial intelligence can be more inclusive and accessible, exploring issues such as ethics and regulation. The Future of Work stream will examine how technology will impact the workplace and the opportunities this presents for our work-life balance. The third stream, Future-Ready will present how we can use AI to improve our cities and towns, as well as harnessing the potential of AI to future-proof different sectors from

agriculture, to manufacturing and health.

Elaine Murphy, Senior Vice President of LiveTiles said the event is an opportunity to position Sligo as a leading national voice in tech thought leadership: “This is a high profile international event that will enable us to showcase Sligo and the northwest as an

ecosystem of inspirational innovation, expertise, creativity, collaboration and academic excellence.” The event will be held in Knocknarea Arena and across the IT Sligo Campus on March, 25th, 26th and 27th. More details will be announced early in the New Year.



€350,000 HEA Funding for Insurance Apprenticeship



The Higher Education Authority has awarded IT Sligo €350,000 for the New Insurance Practitioner Apprenticeship Programme in partnership with the Insurance Institute of Ireland. This funding will be used to develop new learning processes and mentoring techniques that will increase the likelihood of success for distance learners. The existing BA (Hons) Insurance practice programme will be used as the test-bed and students, tutors and industry will collaborate to develop the new methodologies which will be evaluated in collaboration with the industry and learners.

The project will also build research capacity and add to the

body of research both in the Irish Insurance market and in relation to the international best practice regarding student success factors in distance learning.

Thanking the HEA for their funding, Head of Faculty of Business & Social Studies at IT Sligo, Dr Michael Barrett said: "This funding announcement is excellent news for IT Sligo and the Insurance industry and will help us to deliver a better online experience for our students. Our "Earn & Learn" Insurance apprenticeship programme is a great example of partnership with industry and has proved very successful. This year we had our first degree graduates from the course".

Sligo Student European Young Entrepreneur of the Year

The overall winner of the 2019 YouthStart European Young Entrepreneur of the Year Award is Conor Stinchon from Co. Sligo. Conor's business, Gaelic Superstore, offers personalised GAA gloves which can be customised for club, school and county teams. Conor's passion for GAA was also at the very core of his business, and his vision is to be the number one glove company in Ireland with a proven track record of quality at the highest level, and customer satisfaction which is unrivalled.

Conor was mentored by IT Sligo's Roisin McGlone and Janette Gillen, who helped him with his business model and presentation.

In addition to a cash prize of €1,000, Conor won an all expenses paid trip to Vienna to attend the prestigious Global Peter Drucker Forum 2020, a conference dedicated to the creation of social value and economic value in business organisations including developing managers, corporate models, the potential within organisations, business management and contribution to society.

The four Irish entrants are all participants in the Foróige NFTE programme, which is a youth entrepreneurship programme that enables young people to become college, career and life ready.

Séan Campbell, CEO Foróige said "We are so proud of the success of Ireland's young entrepreneurs in Barcelona. They thrived on the European stage and I have no doubt that this experience will stand to them as they move forward with their business and in their future lives. Creating a culture of entrepreneurship among young people is so important and participation in a programme like NFTE puts the career path of 'entrepreneur' firmly in the sights of young participants giving them an 'I can and I will' attitude that is quite remarkable."

This year's trip to Barcelona was sponsored by ActionCOACH Ireland, who also supported the young entrepreneurs through a series of business coaching workshops to help them prepare for the competition.



Conor returns home from Barcelona as European Young Entrepreneur of the Year

The futures of democracy: there's an App for that, isn't there?

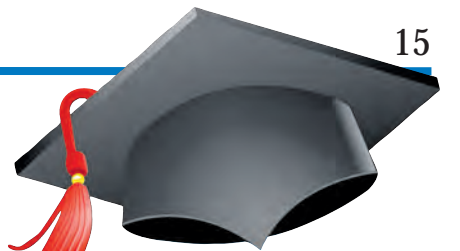
By Dr. John Pender

Well, not quite! However, first year students on the BA (Hons) Sociology and Politics degree came tantalisingly close to developing such an entity during a fascinating workshop recently delivered by Denise Mulvaney of Astara Creative a locally based consultancy firm specialising in identifying user experiences (UX) on a range of diverse products including politics and democracy. By introducing students to the principles of UX, a most creative set of futures emerged. One of the objectives of this workshop, according to Denise Mulvaney, was to facilitate students to: "Imagine a completely impartial and independent means of communication that didn't respond to political pressures or the possibility of building a more democratic financial institution, one without centralised control or human fallibility. Could DAOs (decentralised autonomous organisations) be the way forward or are we expecting too

much from machines?" One of the students, Ilham Ahmadi, asserted: "The UX workshop offered in depth insight into the future of politics and the impacts of the current and continuous development of technology on politics". These technologies included, for instance, the ways in which the much heralded Blockchain may revolutionise deliberative decision-making. Dr John Pender reflected that: "Considering the crisis of confidence and erosion of trust in the very fabric of representative democracies characterised by revelations about the manner in which Cambridge Analytica may have distorted the outcomes of recent pivotal plebiscites on both sides of the Atlantic, new and secure technologies are required to restore confidence in politics, governance and accountability in public life". In the course of their engagement, students identified issues such as Brexit and the recent unrest in Iran as possible spaces within which Blockchain technology might be successfully applied.



GRADUATION 2019



Largest Graduation Ceremony Ever at IT Sligo

A father and two sons were among the 1700 students from IT Sligo who attended their graduation this year. This is the largest number of students to graduate from the institute since its formation in 1970. Ten students were also conferred with doctoral degrees, more than triple the usual number of PhD students at IT Sligo. Dr Brendan McCormack congratulated all the students and praised the increase in doctoral degrees; "This year we have the highest number of PhD students graduating from this institute. This is a great achievement by our students and staff and is a reflection of the growing confidence in IT Sligo as a centre of academic and

research excellence." The students have graduated in over 90 courses over the three faculties of Science, Engineering & Design and Business and Social Science. Among those graduating are students from countries across the globe including Canada, France and Oman. The countries first Honours Degree Apprentices were among those who graduated. The "Earn & Learn" degree course delivered by IT Sligo in partnership with the Insurance Institute and LIA, was launched in 2016 and sees the fruition of the collaboration which allows students to study for a degree while they work full-time in the Insurance Institute. The Institute also has a father and two

sons graduating together this year from faculties of Engineering and Business. Richard Warnock with his two sons Kevin and Daniel were conferred on the same day in Engineering and Business Degrees, respectively. Speaking at the graduation President of IT Sligo, Dr Brendan McCormack welcomed the graduates and their families: "It is an honour and a pleasure to welcome each of you here. Today we are honouring your hard earned success. Your efforts have brought distinction to you personally, to the Institute and to the often unheralded and silent partners in higher education, your inspiring and supportive families and friends."



Mabel Chah sings for joy at Graduation



Amanda Walsh, Mayo, graduates with a BB in Sport with Business.

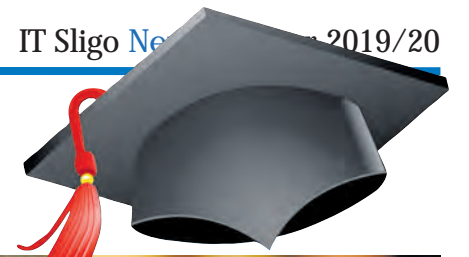


Our highest number of PhD students graduated this year.



Shane Sheridan from Cavan brought his daughter Ruby who had a good look at Dr James Brennan at graduation.

GRADUATION 2019



GRADUATION 2019



Father and his two sons graduate together. Richie Warnock with his sons, Kevin and Daniel.



GRADUATION 2019



Talking About Green Campus



Minister Mary Mitchell O'Connor and Senator Frank Feighan meet with representatives of IT Sligo's Green Campus committee.

and welcomed climate change expert and media pundit Cara Augustenborg on campus for an insightful discussion on our climate crisis.

We are also continuing to support a number of student projects on issues such as behavioural change, waste management, health promotion and sustainable transport. If you are a lecturer or student with an idea that connects your course with our vision of creating a more environmentally sustainable campus, please contact green-campus@itsligo.ie



Staff and students at a recent Green Campus consultation.

It has been a busy few months for our Green Campus team now that we are officially up and running. This semester we hosted our very first waste workshop to talk about the important environmental changes you want to see on campus. The workshop event brought people together from all across campus including students, staff and catering and led to some great discussions and ideas. The Green Campus team are busy putting

together a plan of action around the changes we can make this year, follow us on Instagram and Twitter (@ITSGreenCampus) to stay tuned for more updates!

Green Campus was delighted to be involved with the Sligo Science Festival. This year we created the questions for the Science Trail, linked up with pupils from local Green Schools for a waste awareness session in the main canteen,



Prof Frances Lucy, Head of Department of Environmental Science, Declan Feeney, lecturer with guest speaker Dr Cara Augustenborg and Fiona Britton, Sustainability Officer, IT Sligo.



Students of the future at the newly installed recycling stations at O'Hehirs canteen at IT Sligo.

GREEN CAMPUS

Tips for a Climate Conscious Christmas

by Briana Kane - Student

Climate change may be the last thing on your mind in the run up to Christmas. It's easy to get caught up in all the indulgence, traditions and time with family and friends and forget about world issues. Unfortunately, climate change doesn't take a break for Christmas.

However, with these tips you can still enjoy all the festivities at a low cost to the environment, not to mention your health and your pocket!

Food

Plan your meals, desserts and treats, make a shopping list and stick to it to avoid impulse buying.

Bake desserts and treats instead of buying

plastic covered ones from the shop.

Include seasonal fruit and veg with every meal such as apples, pears and cranberries, butternut squash, cauliflower, Brussels sprouts, carrots, parsnips and turnip. Avoid food waste by considering portion sizes and using up leftovers.

Presents

Support local businesses instead of shopping online.

Give a handmade gift or bake something and put it in a nice jar, box or tin that can be reused again.

Give the gift of sustainability; a keep cup, a reusable water bottle or a bamboo toothbrush can all make great gifts.

Give them an experience such as a voucher for the cinema, a restaurant or a class.

Reuse old newspaper, maps or brown paper to wrap your gifts.

Tie it all together with twine or ribbon instead of Sellotape to ensure that all of the wrapping can be reused or recycled.

Avoid glittery or foil wrapping paper and opt for simple paper style wrap which can be recycled.

Decorations

Make the switch to LED lights and choose ones that have a timer so you don't even have to remember to turn them off.

Reuse old bottles and jars and put a string of battery powered fairy lights or candles inside.

Opt for a real Christmas tree which can be composted, or go for a good quality fake one that will last for years.

Get creative and try making your own decorations out of recyclable, compostable or even edible materials, a great way to occupy the kids for an afternoon.

If you fancy a change, maybe you could swap some decorations with your friends or family instead of buying new ones.

If you even just pick one or two things from this list and adopt them this Christmas, you'll be making a difference. Sustainability isn't about changing everything all at once. It's about making small changes consistently and sticking to them. Wishing you a green Christmas and a sustainable new year!

The Future of Engineering Education



By Brian Mulligan.

You can learn almost anything on the Internet. Kids are learning to play the piano without a teacher by watching Youtube videos. Technicians are using videos viewed through Augmented Reality glasses to maintain equipment. Engineers are taking free online courses to gain new knowledge to address challenges in their work and to improve their employment prospects.

So will this change the nature of engineering education? It has already started in CPD, where busy engineers take **online courses** in topics that are not available close by, saving them time and minimising disruption of their lives. Even practical work is being facilitated online with simulators, remote access to rigs and Virtual Reality based learning experiences.

For undergraduates lecturers are starting to use the web to improve their teaching. They are posting links to resources, accepting assignment and giving feedback online and using quizzes to encourage and monitor progress. However, these changes are only augmenting the basic model of education that has been with us for hundreds of years. Are there more radical approaches that might change the underlying teaching or business models of engineering education?

Flipped Learning, where the student engages with the content before class, and takes part in activities during class, is gaining traction. Why give the same lecture every year when it can be recorded? Why not use the valuable time in class to apply knowledge and to get support from the lecturer (and peers in large classes)?

Why not create a full **Project Based Learning (PBL) degree**. Why have any lectures at all? A programme based around the execution of projects will better prepare the students for the workplace. Students can access low-cost courses on the web to

underpin their learning. Many of these will be compulsory and considered to be a fundamental part of an engineering education, but many will be chosen by the students on the basis of their own interests or the requirements of the projects.

However, college projects are artificial and a limited attempt to emulate the real world. What if undergraduates spent the full length of their degree in the workplace? **Work-Based Learning (WBL)** degrees already exist, often as apprenticeships in a block-release format. Online learning allows such work-based programmes to be more convenient as the student can attend work continuously and study online. This model has already been successfully deployed by Institute of Technology Sligo in the apprenticeship degree in Insurance Practice. Manufacturing employers around Ireland have indicated great interest in employing young trainees to get their engineering degree in this mode.

Both PBL and WBL are examples of how technology can enable radical changes in teaching models, but it might be suggested that changes in business models could be even more radical. Although the hype of **Massive Open Online Courses (MOOCs)**

has passed, they continue to be popular. IT Sligo enrolls 2,000 learners every year on a free Introduction to Lean Sigma course, an important marketing tool for our large range of CPD courses. Many universities are monetising this development by amalgamating MOOCs into **Micromasters** and charging for assessment. The most notorious example of this style of low-touch, low-cost education is the Masters in Computer Science from Georgia Tech. At \$6,500 this programme has 5,000 students enrolled and is partially to blame for the reduction in enrollment in computer science masters degrees around the US. AI systems are now being deployed to reduce the workload in both supporting students and creating assessments. Cutting cost through scale and the use of technology, strategies familiar to engineers, are now being applied in education. The value proposition for learners seems very compelling and may well be a threat to existing programmes.

To finish, consider a more radical concept called **Free Range Learning** where the learner chooses what, how and where they learn. This may be difficult to develop in a traditional and highly regulated profession like engineering. However, given the need for more engineers, the increasing specialisation of work and the constant emergence of new technologies, perhaps this should be considered. As accreditation is important, the key to the development of such a model is **Recognition of Prior Learning (RPL)**. Many shorter courses on the Internet are issuing **micro-credentials**, often electronic (and more recently based on **blockchain**). Electronic certificates, which can hold much richer data about a learners achievement will ease verification and make RPL more feasible. However, institutions will need to also change their regulations to be more accepting of learning gained elsewhere.

Technology is now enabling many alternative models of engineering education. Many will resist change for both valid and invalid reasons. However, learners, who will now have many more choices than they have ever had before, may force the pace of change, preferring those providers that innovate.

Brian Mulligan, a Civil Engineer, is responsible for Online Learning Innovation in Institute of Technology Sligo where he has worked as a lecturer, online learning developer and online innovation manager since 1984. bit.ly/brianmulligan



Flying Swans at Sligo Sings



“The Flying Swans” Choir played homage to its origins at the Hawkswell Theatre on 23rd November in the 2019 Sligo Sings event. Sligo Sings, intent on celebrating the joy of singing together started in 2015 when the Hawkswell theatre put out an open call to workplaces in Sligo. Ray Cotter (chaplain) took the lead in getting IT, Sligo involved and remains as choirmaster. Five years later our choir is going strong and developing its repertoire.

The now annual event brings together new and experienced choirs from around the Sligo Leitrim area to sing individually and together accompanied by Kieran Quinn and other local musicians.

This year the choir performed a Carly Simon’s Let the river Run in 4 parts and also joined forces with the Sligo University Hospital, the Sligo county council and HSE Leitrim choir for a rousing first half finale of Do you hear the People Sing from Les Miserables.

Like Santa the choir are busy working on a Christmas (song!) list and looking forward to performing on and off the campus for charity events over the festive season. New members are always welcome – just turn up Wednesdays 1-2pm in C1002 and/or contact tobin.keiran@itsligo to have your name added to the Whatsapp group.

Pictured: On stage at the Hawkswell with the Choir Musical Director Ray Cotter.

Google Livestream Watch Party



IT Sligo joined a number of other third level colleges across Ireland, hosting its first ‘Google’ livestream Watch Party on Friday 22nd November.

Attendees were treated to a wealth of information about the different progression opportunities in Google gaining valuable tips and advice about how to tailor their CV and how to prepare for interview.

To find out more about careers/recruitment events, graduate jobs and internships open to IT Sligo students and graduates, please register or login to the IT Sligo Online Careers Service: <https://itsligo.jobteaser.com>

Pictured are: Jack Malone, Aoife Egan, Quentin Quaile, Tomas Feeney, Olujide Egberongbe & Abigail Herron.

Students, Families and Teachers ASPIRE with ABBOTT at Special STEM Event in Sligo



All Ireland winner Kevin Nolan speaking about STEM at Aspire event with Abbott

Abbott, the global healthcare company, hosted a special event in the Aurivo Theatre in Sligo that explored career opportunities that exist within the world of STEM (science, technology, engineering, math). ASPIRE with ABBOTT brought together parents, teachers and students to hear from guest speakers, Abbott employees and patients whose lives have been impacted by innovative healthcare technologies.

The speakers included All Ireland winning footballer Kevin Nolan and IT Sligo Biochemistry Lecturer Colin Fowley. In addition, Abbott employees based at the company's Sligo and Donegal business shared their personal experiences in STEM-related roles. This included their career journeys, the range of opportunities that they have taken, their current roles and what it is like to work in a global healthcare company.

Daragh Fallon, CSR and Communications Manager for Abbott, shared the vision behind ASPIRE with Abbott: "As a global health technology company that recruits world-class scientists

and engineers, we know that young people are a critical factor in solving the world's biggest problems with smart, imaginative thinking.

"The world of STEM can feel daunting for both young people and their families, particularly if it is unfamiliar. ASPIRE with ABBOTT aims to provide a creative experience that encourages young people to engage in STEM. The evening focused on topics such as the importance of subject choice, the future of work and how to build a pathway to third-level education and beyond.

"This event is part of our wider commitment to support our communities across Ireland. Last year our employees delivered more than 7,000 volunteer hours to good causes across the country. We are passionate about supporting young people and education, and this is the focus of much of our community work."

Throughout November, Abbott will be hosting events nationwide that aim to engage more than 1,000 children, parents and teachers including ASPIRE with ABBOTT

events in Longford and Clonmel.

About Abbott:

Abbott is a global healthcare leader that helps people live more fully at all stages of life. Our portfolio of life-changing technologies spans the spectrum of healthcare, with leading businesses and products in diagnostics, medical devices, nutritionals and branded generic medicines. Our 103,000 colleagues serve people in more than 160 countries.

Abbott in Ireland:

Abbott serves the Irish market with a diverse range of health care products including diagnostics, medical devices and nutritionals products. In Ireland, Abbott employs almost 4,000 people across nine sites. We have six manufacturing facilities located in Clonmel, Cootehill, Donegal, Longford and Sligo and a third-party manufacturing management operation in Sligo. Abbott has commercial, support operations and shared services in Dublin and Galway. We have been operating in Ireland since 1946.

Sebastian Barry Visit

by Julianna Holland, Writing and Literature Student



World famous writer and Laureate for Irish Fiction, Sebastian Barry meets with students from Writing & Literature course.

It was an honour and with great pleasure that we welcomed writer Sebastian Barry recently to IT Sligo. Arranged by fellow writer Eoin McNamee, the visit by the Laureate for Irish Fiction was to facilitate a workshop for third year students of Writing & Literature, the institute's inaugural BA programme, chaired by Una Mannion.

In advance of the occasion, we were asked to bring along a page of our work which had, in Sebastian Barry's words, 'surprised us'; a piece of writing that had stimulated us and informed our writing practice. After a compelling and insightful introductory talk from the acclaimed novelist and playwright, he began a focussed discussion with each participant.

To dispel nerves before a reading Mr Barry has a habit of singing a few lines of a song appropriate to the work. He invited us to do the same and an impressive number of the group rose to the challenge. We were each asked a wide range of questions about our writing lives, our interests and reading preferences. Throughout, the conversation was interspersed with fascinating and entertaining stories of Mr Barry's own methods and experiences.

There was an added interest in tales of Sligo as his mother, actress Joan O'Hara, and aunt, soprano Mary O'Hara, were raised at Sligo Harbour and much of his work is founded in their recounted childhood. After our individual introductions, we read our pieces and received invaluable feedback and encouragement.

The generosity of time spent with each of us resulted in the workshop lasting over an hour longer than scheduled and it was with great reluctance that it came to an end. We left buoyed up by Mr Barry's enthusiasm and direction and extremely grateful to all involved in organising such a wonderful opportunity.

"It's a wrap - but do we know what plastic it is?"

"It's a wrap - but do we know what plastic it is?" is an outreach initiative ran by the School of Science, IT Sligo in association with the Royal Society of Chemistry and Science Foundation Ireland. The project aims to highlight the presence of plastic in everyday household packaging while also introducing primary school children to basic chemistry concepts. The initiative was launched in September 2019 and all primary schools in the Northwest were invited to participate. The project received a very positive response with 20 schools in counties Sligo, Mayo, Leitrim, Roscommon and Donegal wishing to partake in the project.

Each school involved in the project monitors plastic waste generated

from a particular setting such as school lunches, a street clean, a beach clean, or a river clean. Children analyse the waste collected using the Spectroscopy in a Suitcase kit and identify the plastic by fingerprinting using the infrared spectrometer. Schools engaged in this project have produced some wonderful work to date. The children at Highpark National School, Sligo created an impressive collage of the plastic collected during their experiment and ask the very important question 'Is This What we Want For Our Oceans'?

This initiative is organised by Dr Yvonne Lang, Dr Fiona McArdle and Mary Connolly in the School of Science.



Artwork by pupils of Highpark National School on display at IT Sligo.

Cranmore Education Mentor Programme Launched



Mr Ciaran Hayes, CE, Sligo County Council, Jane Golden Cranmore Regeneration, Patricia Keane Sligo County Library, Linda McGloin ITSligo, Dr Brendan McCormack, President ITSligo, Dr Celia Keenaghan, Cranmore Education Mentor Programme, Joe Gethins, Cranmore Regeneration.

The Cranmore Education Mentor Programme was launched recently by President of IT Sligo, Dr Brendan McCormack and Chief Executive of Sligo County Council, Ciaran Hayes. The mentoring programme is a joint initiative of the Cranmore Regeneration Project and the Institute of Technology, Sligo and aims to help people from the Cranmore community to stay or return to education.

The event was launched at the Abbeyquarter Community Centre and was an opportunity to celebrate the accomplishments of residents of Cranmore and hear about what educational supports are available for all ages. A panel discussed 'why everyone needs a mentor' and included local residents and people working in the area.

Mr Ciarán Hayes, CE, Sligo County Council and Chair of the Cranmore

Regeneration Steering Group, welcomed the over 40 people who attended the launch and said:

"The Mentor Programme is unique amongst the other mentor projects being funded by the Higher Education Authority Access Fund. It is the only project that is working from the ground up with a community development approach."

Dr Brendan McCormack, President, IT Sligo officially launched the event saying:

"In IT Sligo we are constantly striving to improve access to higher education and recent research by the Higher Education Authority has confirmed our success in this. IT Sligo reaches more students from socio-economically disadvantaged areas than all bar one other higher education institute in the country. This is an achievement that we are very proud of and we are building on it through a range of initiatives including this

Cranmore Education Mentor Programme.

Dr Celia Keenaghan, Cranmore Education Mentor Programme will be available to anyone in the Cranmore Regeneration area who is interested in exploring their future education options.

- You might be a school student who is thinking about college.
- You might have left school years ago and would like to find out what is possible for you now. Its not just about college, you might be interested in doing a PLC or an apprenticeship.
- You might be a parent who wants advice supporting your child in their further education.

For further information please contact: Celia Keenaghan, Education Mentor Keenaghan.celia@itsligo.ie Cranmore Regeneration Project 7 - 10 Devins Drive, Cranmore, Sligo Tel - 071 9111250



Students Allie O'Shea 5th Year, Katie O'Donnell 6th Year, Emma Loftus 6th Year with Bernie Sheridan Career Guidance Counsellor Mercy Post Primary.



Dr. Celia Keenaghan, Education Mentor, speaking at the launch.

IT Sligo PhD researcher Saoirse Dervin receives the Prestigious ICI Postgraduate Award 2019



Saoirse Dervin of Nanotechnology and Bio-Engineering at IT Sligo receives the Prestigious ICI Postgraduate Award 2019. Saoirse will receive her award during an ICI award event which will coincide with the date of the AGM, typically in April 2020.

Saoirse is in the final stage of her PhD study entitled "In vitro activity of graphene family nanomaterials". The current study is an assessment of the in vitro toxicity and antimicrobial activity of 2D and 3D nanostructures. Saoirse has recently been successful in the Marie Curie Early Stage Researcher, Electronics and Nanoscale Engineering, Bendable Electronics & Sensing Technologies (BEST) Group, University of Glasgow. Saoirse has published 6 papers in high impact journals such as RSC Nanoscale (Impact Factor 6.9), Journal of catalysis (Impact Factor 7.72), ACS Energy Letters ((Impact Factor 12.27). She has already received over 100 citations. Her full publication list can be viewed at <http://tiny.cc/ffrah.z>

Saoirse has previously acted as an ambassador for the Royal Society of Chemistry's Spectroscopy in a Suitcase scheme. This scheme provided school students with a chance to learn about spectroscopy (infra-red and UV-visible) through hands-on experience. As well as covering the principles of spectroscopic techniques, the activities used real-life contexts to demonstrate the applications of the techniques. Saoirse also delivered an Adventures in Chemistry course to 8-12-year olds participating in the Centre for Talented Youth Ireland Summer 2019 program. Learning chemistry, you will learn about the elements that compose the world around us. This practical "hands-on" course introduced students to fascinating chemistry topics by providing them with the opportunity to explore a range of experimental elements of chemistry from basic atomic and molecular structures, to chemical bonding and reaction speeds. Saoirse also supported provided supervision and support to secondary school students in the development and progression of research projects intended to at the BT Young Scientist and Technology Exhibitions, one of whom achieved third place overall in the senior individual category of the Chemical, Physical and Technology Category for a project. Saoirse is an excellent communicator and her interview on nanotechnology has been broadcasted in the weekly science programme of the 'Ocean FM' radio in 2015. She has presented her work in the EU-COST meeting in Poland and at the ENVIRON conference held on 2015 and 2017. Saoirse was supervised by Prof. Suresh C. Pillai.

Arturo Ui Play @ IT Sligo



Dominic Treanor in the title role of Arturo Ui standing over Sean Dempsey in the 3rd year Performing Arts performance, directed by Agnes Pallai and Declan Drohan.

Performing Arts students in third year staged Arturo Ui by Bertolt Brecht, in the Black Box Theatre. Directed by Agnes Pallai and Declan Drohan, this parable play follows the rise of a tyrant, who, with his mob, endeavours to rule and dominate the market and lives of all around.

The third year acting and theatre design students tell this classic and ruthless play in a new way and with fresh and contemporary aesthetics. The controversial satirical play (1941) by Bertolt Brecht still speaks to many aspects that we encounter in our capitalist society and current fake news political climates.

The third year students produced the play together with the help of staff and a production team of second-year performing arts students.

Green Your Life



ITS time to Green our lives @ITSligo

The BB in Tourism and event management year 4 students held a GREEN YOUR LIFE event in November on campus.

The event included pop up shops on the main concourse and included guest speakers in the Aurivo.

Guest Speakers on the day;

John Wilmott - Us and Trees, What Can we do

John - Paul Patton – Dun Dulra eco village Project Roscommon

Dr. Declan Feeney – Environmental Science Department IT Sligo

Making even one small change in our day to day lives can make a big difference.

Executive hits Gender Balance for first time



IT Sligo's executive is now gender balanced 50/50 for the first time in its 50 year history. We have come a long way from the photo taken in the 1990's (below) but we have a long journey ahead to improve the gender imbalance at senior level. As part of our commitment to the Athena Swan Charter, plans are afoot to identify areas of improvement and implement real change for the future. A survey will take place in the new year and all staff are strongly encouraged to take part so that we can leave a legacy for future generations.



FEEL THE WEST - TRAVEL GUIDE By David Keane

Strandhill Christmas Market

The ever popular market will open the doors of Hangar 1 for six dates in December. Every Sunday families from all over the country will visit from 11am-4pm and again this year the organizers have added two extra night markets on Friday 13th and Friday 20th December. The night markets will run at a slightly earlier time of 4pm-8pm.

Christmas is a special time in Hangar 1 with over 50 stalls from all over the country trading on each date. Come hungry as the food stalls serve a mix of award winning Indian cuisine, Italian, Spanish, Mexican, Sushi, Mediterranean and more. Craft and art stalls focus on hand made products ranging from candles, beauty products, clothing, jewellery, ceramics, toys and way more.

As stated by Allan Mulrooney organizer of the Strandhill People's Market "by shopping local at SPM this Christmas, you can give Strandhill and Sligo a year round boost. Research shows that every €10 spent locally is worth €40 in terms of supported employment, supported communities and helping the business to continue to operate year-round."

Make sure to check out this years Christmas Market!



SEEK ADVENTURE

Take a break from the festive rush this year with a guided hike of Sligo's most iconic peak on Saturday 28th of December with NorthWest Adventure Tours. The tour will consist on picturesque walks through lowland blanket bogs surrounding Benbulbin before ascending to the summit. On the summit, hikers will be given a history lesson and shown some of the key features of the impressive mountain before retiring to a secret cave where guides will prepare warm drinks and snacks for hikers. For more information on this hike, check out the NorthWest Adventure Tours on Facebook for ticket information or email northwestadventuretours@gmail.com

Christmas Entertainment



The Winter season brings with it the brisk cold nights and evenings where you want to curl up with a warm drink and listen to some good entertainment. Sligo's entertainment scene outdoes itself this winter with many different performances happening across the county and North West. Here is a number of gigs and shows happening this season:

-> Dervish - Live in the Hawks Well Theatre on Dec. 21st at 8pm. Dervish celebrate 30 years together in music with a special performance in the Hawks Well, a show which is not to be missed! For ticket info, log onto Hawkswell.com

-> 3 Hail Mary's - Looking for a mix of comedy, music and drama? The 3 Hail Marys in the Hawks Well Theatre on December 28th is said to be "One Hell of a hooley". Doors open at 8pm! For ticket info, log onto Hawkswell.com

-> A Night of Stand-Up with Bernard O'Shea - Bernard O'Shea (RTÉ's Bridget and Eamon and Republic of Telly) brings a night of stand up comedy to Anderson's Bar and Grill on the 19th of December! A stand up show worth going to see, just in time for Christmas. Check out Andersons Live on Facebook for ticket info!

-> Want a night of Christmas classics and festive cheer? Kieran Quinn and Tabby Callaghan bring a night of festive tunes to Andersons Live on December 22nd. Get your Yule tide spirit in gear and check out this show! More info on Andersons Live Facebook Page.

LOCAL LINK

With so many great activities to do in Sligo, do you ever wonder "How do I get there?". Local Link provides rural bus services, connecting rural and urban Ireland. Local Link Sligo picks up right outside IT Sligo and provides links to locations like Grange, Mullaghmore and Rathcormack. For more information, check out LocalLink.ie for your local services.

Christmas Markets To Visit

Sligo is a great place for markets and this Christmas there are even more of them. Here are the ones coming up!

-> Sligo Christmas Market takes place at the Quayside Sligo. Every day from 29th November - 24th of December. Mon. - Sat. 10am - 6pm, Sundays 11am - 6pm. Foods and festive treats are served alongside quality gifts and produce from local artisan food and craft producers.

-> Rathcormac Artisan Food and Craft Market Every Saturday from 10am - 3pm. They also have a Christmas night market on the 19th of December from 3pm - 8pm. You can expect beautiful crafts, gifts and food.

-> Sligo Community Craft & Food Market

Friday December 13th at 11am until 4pm in the Methodist Hall Wine Street. You can expect handmade crafts, candles, knits, jewellery, soaps & beauty care, wooden plaques & handcrafts, felt crafts & decorations, hand-sketched cards & prints. Homemade Takeaway Food & Teas and Coffees served.

-> Galway Christmas Market Galway Christmas Market is a staple of the Galway calendar. Artisan food stalls, arts and crafts stalls including bespoke oil paintings, woodwork and knitwear as well as top of the range beauty stalls including seaweed infused beauty products. Galway Christmas Market is a must see with plenty of activities in Eyre Square for the Winter season.



A Winter Weekend Away

Looking for a little weekend away in Ireland during this holiday season? The stress of Christmas and New Years can be washed away with a day or two away!

A simple tip for those looking to take a break is to check booking comparison apps like Booking.com and Trivago to find yourself a place to stay! For example, a nights stay for 2 in Limerick City Hotel - As low as €80 on Booking.com!

AirBnB is a saviour in the accommodation industry but makes for a lovely weekend! Find a cute cottage in Galway or a city apartment in Derry. Be sure to check out what kind of offers are in-store on these apps and be sure to indulge in a bit of Self-care this season.

Try Something New!

Eating Healthy will be more difficult in the coming months with exams, assignments, Christmas and New Years. It can be hard to find the time to cook and eat right and healthy during the holidays! When it comes to exams and the holidays, one of the most important ways to stay healthy and keep your body happy is with one essential item... WATER!

Stay hydrated to keep your body in check and to keep your body happy too!



BOOKING sligolive.ie • ticketmaster • 071-9161518

FOIL ARMS & HOG

IT SLIGO - KNOCKNAREA ARENA
SATURDAY FEB 29TH
TICKETS €28.50 +€ ON SALE THURSDAY 31st OCTOBER

SLIGO LIVE special event

Students design logo for annual swimming event



lecturer Siobhain O'Connor. Both student groups worked on the design of a logo individually for a number of weeks.

The Channel Cup Swim committee had a very difficult task in choosing the winning logo. In the end, the logo designed by Octavian Visan (2nd year student) was chosen as the event logo for the future. This logo will feature on the event's swimming hats in 2020.

Lisa Dunne commented that the logo design challenge was a great example of community engagement. The students got the opportunity to apply their creative and digital skills in an assessment which benefitted the Channel Cup Swim which is a local fun swimming event which raises much needed money for the RNLI.

Recently 2nd and 4th year Marketing students were set the challenge to design a logo for the annual Channel Cup Swim, which takes place in Rosses Point in June in aid of the RNLI. This is a 1.2 km swim which starts at the Yacht club and finishes in the sea opposite Harry's Bar. Swimmers are then brought by boat back to the start line. The Channel Cup Swim has been a big part of the open water swimming calendar for many years, nevertheless, the event did not have a logo. Channel Cup Swim committee member and lecturer Lisa Dunne pitched the challenge to design a logo to the two student groups at the beginning of the semester.

Second year Digital Marketing students and fourth year Business Add On students took on the challenge as part of their assessment for the module Creative Design with lecturer Mark Rooney and the module Digital and Social Media for Business with



Hotel Website Audit by Tourism Students

Third year students of the BB in Tourism with Event Management were involved in a project with seven local hotels and Sligo Business Improvement District (BID) as part of their Marketing Communications module. The students audited the websites of these hotels and presented their recommendations to an industry panel that included Vanessa O'Donovan, Sales Manager, Glasshouse Hotel, Gail McGibbon, CEO, Sligo BID, Mark Ballintine, General Manager, Riverside Hotel, Paula Scallon, Director of Sales and Marketing, Sligo Radisson Blu and Edel McPartland, Revenue, Sales and Online Marketing Executive, Sligo Park Hotel. Also included in the photo is lecturer, Mary McGuckin and Head of Faculty, Michael Barrett.



Positioning IT Sligo's Future Research Capacity - The RECAPHE Project



Dr John Bartlett (IT Sligo Head of Research) and Dr. Ehiase Ehimen took part in the Kick-off meeting of the Erasmus+ RECAPHE project at Jagiellonian University, Krakow, Poland. IT Sligo is one of the academic partners in the EU funded project - Enhancing Staff Research and Innovation Capacity in Professional Higher Education, which will run from 2019-2022.

The RECAPHE project is necessitated since Institutions of Professional Higher Education (PHE) (which includes Institutes of Technology) are positioned to play an important role in enhancing European competitiveness and innovation capacity, especially at regional levels where PHE institutions act as connectors and crucial links between the regional SMEs, regional organisations and the society. However, despite the benefits of PHE institutions activities within society and their regions, their full research capacity potential still appears to be under-developed.

The main objective of the project is to strengthen the profile of applied RDI in PHE in Europe - both within the institutions, as well as towards the regions they operate within. Specifically, the project will gain an insight into the scope and nature of applied RDI activities within PHE institutions in Europe, clearly distinguish the different competences required of applied researchers, assist researchers in RDI to enhance their capacities, and provide a clear future vision for applied RDI in Europe, together with a strategy on how to achieve it.

The impact of RECAPHE will be most felt at local and regional levels via enhanced capacity of staff of PHE institutions within the project or benefiting from the project outputs.

During the course of the project, staff engagement on the project activities and outputs will be sought, so watch this space.

A Fond Farewell to Willie Lynch



Staff of IT Sligo said a fond farewell to Willie Lynch on Wednesday 30th Oct in a packed staff canteen. Willie was well known to all as he is always to the forefront of the Institute ensuring the place is spick and span. His friendly face and contribution to the day to day running of the institute will be missed. Best of luck Willie.

Sligo Town Centre's Pulse Taken in First-ever Town Centre Health Check IPSOS Consumer Surveys Report



The findings of a major new IPSOS survey, on the strengths and opportunities for Sligo Town Centre have been released today by the Sligo Collaborative Town Centre Health Check Team (CTCHC). Funded by the Heritage Council, the consumer surveys report reveals people's impressions and perceptions of the town's shopping and eating options along with leisure and entertainment facilities. Consumers felt that the historic town would benefit from an improved public realm, reopening of vacant units, more shops and more cultural events.

Ali Harvey, CTCHC Training Programme Co-ordinator with the Heritage Council, hailed the Heritage Council's role saying that the collaborative approach is crucial in effecting change in our country's historic towns. "We're looking to ensure that our historic towns survive and thrive in a time of great uncertainty, particularly in light of Brexit. This collaborative approach enables everyone to play a creative role in the planning and future management of our traditional town centres. The results of the IPSOS Consumer Surveys Report will help to inform and guide plans for the revitalisation of Sligo Town Centre. Robust baseline data is vital to ensure that our traditional town centres move with the times – we need to adapt to current trends and ensure that we offer a unique visitor experience in a quality, historic place".

Welcoming the Sligo Town Centre Health Check Report process, the CEO of

Sligo Business Improvement District (BID), Gail McGibbon said the IPSOS Report is a positive and constructive basis on which Sligo Town Centre can be further enhanced and promoted. "This was a truly collaborative baseline survey involving the town's key strategic partners and it gives us a great baseline for taking stock of Sligo's unique commercial and cultural assets. Quality of life and vibrant and attractive places are important drivers of investment and they are also an enabler of a strong entrepreneurial culture. The Heritage Council has been a huge support helping us to compile this consumer survey..

The IPSOS survey focuses on a number of key indicators of the overall health of the town centre including: level of town centre activities and consumers' perceptions of the overall quality of the environment of the historic town centre. The report is part of the much wider initiative of the Sligo Town Centre Health Check Project. The IPSOS Report was launched at IT Sligo, one of the key project partners, on Thursday 7th November at 11am.

The consumer survey showed that: CHANGE FOR SLIGO

- Cafes, restaurant and food appear high on the list of reasons to visit Sligo. 96% are happy with the food and restaurant offering in town (Restaurant Association Ireland's Top 10 Foodie Destination in 2016, 2017 and 2018);
- The refurbishment of O'Connell St was viewed very positively by those surveyed.

- Of the 408 consumers/visitors surveyed 34% shopped online in the last month, indicating that people still use bricks and mortar as primary shopping. Top 4 items purchased online include Clothing, Tech, Beauty Products and Concert tickets;

- A key feature of the historic town centre was the Garavogue River with Rockwood Parade ranking first in places to visit followed by O'Connell St.

- Shopping is the main factor driving usage of Sligo Town centre users; however those surveyed would like to see more a modern range of shops; and increased events in the town centre.

- There is a feeling that Brexit will impact negatively on the town.

Sligo, along with 12 other towns in Ireland is a member of the Heritage Council's Collaborative Town Centre Health Check Training Programme established in late 2016. Programme partners include the Department of Culture, Heritage and the Gaeltacht, Department of Housing, Planning and Local Government and Department and the Department of Business, Enterprise and Innovation. The project team which undertook the consumers' survey of Sligo Town Centre includes representatives from Sligo Business Improvement District (BID), Sligo County Council's Planning, Heritage and Arts Offices, IT Sligo and Sligo Chamber with ongoing support provided by the Heritage Council. The CTCHC Training Programme currently has 13 no. towns involved in the programme with more towns on a waiting list to join.

The 19th Century Sligo Scientist who sparked a Million Dollar Question

- A Special Talk on George Gabriel Stokes at IT Sligo.



Una Parsons - Head of Faculty of Engineering and Design, Kieran, Hughes - Sligo mathematician, Pauline Mellon - President of the Irish Mathematical Society, Alastair Wood - Emeritus Professor of Mathematics at DCU and biographer of Stokes Julia, Long - Great great grandniece of George Gabriel Stokes and Kevin Bohan - IT Sligo lecturer.

Did you know, one of the greatest mathematical physicists of the nineteenth century came from Sligo? His equations are still used to this day in the designing of aircraft and predictions of climate change. But one of his equations has left scientists baffled and if you can solve it, you stand to win one million dollars. In spite of this princely sum, nearly twenty years on, nobody has come close. His work continues to influence our daily lives and yet one equation has baffled everyone for nearly 200 years.

On Friday December 6th IT Sligo welcomed Alastair Wood, Emeritus Professor of Mathematics in Dublin City University and biographer of Stokes, to the campus to give a public lecture on Stokes entitled 'George Gabriel Stokes – Life, Science and Faith'. Alastair covered Stokes' childhood in Sligo, his relationship with the area, as well as covering his vast contribution to the world of science.

George Gabriel Stokes was born in Skreen Rectory, County Sligo in 1819. The youngest son of the Rector of Skreen, he spent his childhood in Sligo before studying at Trinity College Dublin and later entering Pembroke College, graduating as Senior Wrangler, the best mathematics student in the prestigious University.

He would spend the rest of his life in academia and by the age of 26 he became the Lucasian Chair of Mathematics, one of the most distinguished academic positions in the world a title which he shares with Isaac Newton and Stephen Hawking. A position he held for over 50 years, the longest in its history.

His influence spanned Europe and his contributions to science are impressive. He established the true origin of fluorescence and showed that haemoglobin transported oxygen in the blood.

Notably, some of the equations that Stokes developed to describe the movement of air, water and other fluids have become central to climate models today. These Navier-Stokes Equations are used to model the dynamics of the atmosphere as a continuous, compressible fluid, and can be applied to simulate past and future climates on Earth.

Alastair Wood is an Emeritus Professor of Mathematics in Dublin City University. His main research areas of asymptotic analysis and differential equations, where Stokes made major contributions, led him to a deeper appreciation of the man and his legacy. Since his retirement from DCU in 2003 he has been working on the Stokes book project from his home in the Pyrenées-Orientales.

New Frontiers Entrepreneur Development an Enterprise Ireland programme



On Friday 22nd November, New Frontiers and the Innovation Centre hosted a workshop with Dermot Berkery, Venture Capitalist with Delta Partners. Dermot has a distinguished career in business having joined Delta Partners in 1999 as a General Partner. He serves on the board of Luzern, StitcherAds, SensL, KidStart and Davra, among others. He was

also previously on the board of Farran Technology (sold in 2005 to Smiths Industries), Similarity Systems (sold in 2006 to Informatica Inc), Brite:Bill (sold to Amdocs in 2016), Clavis (sold to Ascential in 2017).

A graduate of University College Dublin in Commerce, he holds an MBA with distinction from the Harvard Business

School and is qualified as a Chartered Accountant.

Dermot has written a book for entrepreneurs seeking venture capital entitled Raising Venture Capital for the Serious Entrepreneur, published by McGraw-Hill. The participants on New Frontiers as well as some of the entrepreneurs located in the Innovation Centre enjoyed a very informative workshop with Dermot. Some interesting learnings included: Investors look for good judgement, domain knowledge, trustworthy and likeable entrepreneurs to invest in.

All but one investee company that Delta Partners have invested in were Enterprise Ireland High Potential Start up (HPSU) designates.

83% of CEO's that Delta invested in were first time CEO's.

The importance of being able to paint a picture of big possibilities when talking to investors, as Venture Capital only works for businesses that have the ability to grow to €100 million in revenue and provide a 10 X return.

Reasons why businesses fail:

1. The market is too early or too small.
2. The customer acquisition cost is too high or the product / service does not provide enough value to customers.

Businesses rarely fail because the product does not work!

New Frontiers is an entrepreneur development programme funded by Enterprise Ireland. Phase one of the programme will be run over 6 Saturdays from April 2020 and helps you to validate your business idea. Recruitment for Phase 1 is now open. Applications from students are welcome!

Download an application form from www.newfrontiersnw.ie

For more information about New Frontiers, contact Jenni. Timony. jenni.timony@itsligo.ie

Live Art

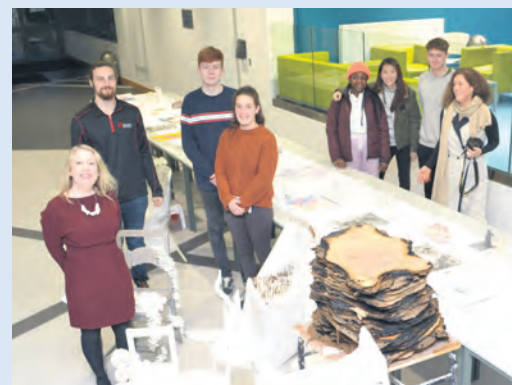


We had some fantastic live art on campus recently with students presenting their work along the main concourse and other parts of the building. "Live Art is a research engine, driven by artists who are working across forms, contexts and spaces to open up new artistic models, new languages for the representation of ideas and identities, and new strategies for intervening in the public sphere."

A homage to Irish writer Samuel Beckett



IT Sligo Yeats Academy third year students performed their homage to Irish writer Samuel Beckett, with a short play that they wrote and designed as part a 'Beckett and Design' module. This module was a key part of the interdisciplinary learning for creative students, that encourages students to work in different creative disciplines. A collaboration between Creative Writing lecturer Martin Roper and Creative Design lecturer Muireann Charleton, this project explored the links between design and the life and work of Samuel Beckett.



Hubert Butler Essay Prize from John Banville



Former IT Sligo Lecturer Manus Charleton receiving a joint runner-up award in the 2019 Hubert Butler Essay Prize from John Banville, Honorary Patron of the Prize. The essay question was "Where does a citizen of the world belong?" The Prize was organised by House of European Art London and judged by Roy Foster (Chair), Nicholas Grene and Eva Hoffman. The awards ceremony was held in London in the Embassy of Ireland. Photo Jamie Smith.

IT Sligo Lean Sigma MOOC goes from strength to strength



Brian Coll and John Donovan - Lecturer's Faculty of Engineering and Design with the EIGSI students in La Rochelle.

The IT Sligo Massive Open Online Course (MOOC) on Lean Sigma Quality now in its 6th year continues to grow with 2000 participants from 35 countries a 20% increase over last year. This year we have 500 participants from Glanbia Ireland benefiting from the MOOC to help in rolling out their Lean Six Sigma employee training initiative in Ireland.

We also have over 100 students from EIGSI a leading engineering school (grandes écoles) in La Rochelle, France enrolled on the MOOC. In late November, IT Sligo lecturer's John Donovan and Brian Coll visited EIGSI and delivered Six Sigma lectures and workshops to their students from countries such as France, Germany, Morocco, Brazil, Guyana and Benin among

others. Discussions were also held between EIGSI and Xavier Velay, Head of Department of Mechanical and Manufacturing Engineering, IT Sligo in relation to mutual co-operation on future initiatives such as Erasmus, student exchange, Mechatronics and Industry 4.0.

Below is a snapshot of the participants on the 2019 IT Sligo Lean Sigma MOOC:

For 90%, this is their first MOOC
2000 participants are registered from 35 countries
74% Ireland
14% UK
6% France
3% USA
1% Germany
1% Australia

Others: UAE, Guyana, Azerbaijan, Canada, Brazil, Pakistan, Oman, Egypt, Colombia, Trinidad & Tobago, Romania, Nigeria, Japan, India.

53% Male / 47% Female

Age Breakdown:

18-24 years - 14% a

25 - 34 years - 33%

35- 44 years - 30%

55-64 years - 4% are d.

We have one participant over 75 years.

13% are in secondary/high school, 66% have a third level degree with 3% having a Doctorate degree (PhD). We have two participants in Primary school.

84% are in full-time employment

30% are undertaking this MOOC to gain specific skills to do your job better and 9% are doing it 'just for fun'.

Politics un-plugged at IT Sligo

Students undertaking the BA (Hons) Sociology and Politics degree have experienced a number of masterclass guest lecturers delivered by notable local, national and European former politicians during semester one. As a key component of the year one module on the programme titled "Running the Country", students have benefitted from the vast experiences of

some of our regions outstanding public representatives. "Politics un-plugged", according to Senior Lecturer Dr John Pender, is intended to: "de-mystify the art of political representation and to encourage and motivate young people undertaking our programme to visualise themselves as community and political leaders of the future".

To date, guest speakers have included Veronica Cawley, Susan O'Keeffe, Felim O'Rourke and Marian Harkin. The insights gleaned have been extraordinarily illuminating of the values, beliefs, ideological orientations, fascinating personal narratives and the sheer commitment all speakers have demonstrated in their life-long quest to achieve their objectives geared towards making a positive change to the lives of ordinary fellow citizens.

Most recently, Marian Harkin spellbound all and sundry on her totemic political career straddling community activism,

membership of Dáil Eireann and three terms as a member of the European Parliament. Her retrospective and prognostic insights were deeply insightful and most enriching. Responding to a tweet highlighting Marian's workshop, Roisin O'Connell of the Technological Higher Education Association (THEA) said: "Insights from the real world are so valuable. Well done @itsligo for organising this". The BA (Hons) Sociology and Politics programme has been designed to allow students experience at first-hand how 'real world' politics operates and this is nowhere more demonstrable than in a module - "Active Politics" - that facilitates a short student placement with a broad range of political actors based nationally and internationally.

Plans are underway to widen and deepen the range of future guest speakers. We'd be delighted to hear from you with any suggestions. Please contact: John Pender at pender.john@itsligo.ie

Writing & Literature Student Niamh MacCabe Wins Prestigious Poetry Prize



Third year student Niamh MacCabe has won the prestigious Francis Ledwidge Poetry Prize, Niamh won for 'On Seeing Her Son's Wedding Shoes,' a poem written in response to an exercise in her poetry module with Alice Lyons last semester on the Writing & Literature BA.

'The poem,' says Niamh, 'captures a tiny moment, and focuses on detail inside those tight parameters. The mother is beside her son in the morgue, trying to understand that he is dead. I was thinking of still-life painting when I wrote it, and how I would approach the scene if I was painting it, what details I would focus on, what I would accent, what I would leave out, what works well both as object and symbol.'

Niamh is the winner of many awards and prizes including the Allingham, Molly Keane, and Wasafari among others has had her work published in internationally renowned journals. This month her story 'Sea Eagle Sonata' was published in The Stinging Fly and she is one of three Irish writers recently selected by Scripts Ireland to work with mentors on developing a play script.

'I am so grateful to have been awarded the prize,' says Niamh. 'It is a validation that will inspire me to use poetry more often as a means of expression. Poetry is so multi-faceted, I have come to realise, and much better equipped to handle abstract concepts than short stories or plays (where the idea needs to be more concrete). Poetry reminds me of the lateral approach in visual art this is why I am drawn to it.'

BE PART OF IT SLIGO NEWS

We are looking for contributions from you, our readers. IT Sligo News is looking for:

- Photographers
- Writers
- Illustrators
- Graphic Designers
- Web Developer
- Filmmakers

If you would like to be part of IT Sligo News please contact our Communication Manager, Aidan Haughey at haughey.aidan@itsligo.ie



Focus on: Niall Delaney - Ocean FM



Niall Delaney, Ocean FM

Local radio station, Ocean FM were awarded the Silver Award at this year's National IMRO Radio Awards in the Digital and Social Innovation Category for their coverage of the local elections earlier this year. The station worked with IT Sligo on an innovative tallying system that would give followers instant access to all the latest counts, stats and predictions. In an interview with IT Sligo News, CEO of Ocean FM, Niall Delaney, explains how the idea came about and how local radio will survive in a digital world.

Niall Delaney:

Pauric Harte and Edmund Gray of the Department of Computing and Creative Practice approached me with the idea of trialling a new online, instant, tally system. Which was introduced for our coverage of the local elections in Co Sligo in 2014 to rip-roaring success, and users crying out for more.

'It's all in the cloud, man', he used to tell me... And I was in the clouds too, until explanation of the use of Microsoft cloud technology to make the all-important tally figures available online to the general public make perfect sense.

As the tallymen insert their voting figures, those figures become instantly available to all computer users logged onto the Ocean FM website. Immediate, accurate, simple! Our co-operation for those local elections won us a National eGovernment Award that year, presented to Pauric by An Taoiseach, Enda Kenny.

IT Sligo News: How did the system work in relation to live radio coverage?

ND: "Well the success of the trial led to even more demands from the public – more of

this, and lots more. What are we doing next, lads?

So at the General Election in 2016, at the Sligo-Leitrim election count in the Clarion Hotel, we again availed of the system. This was augmented by live streaming of the event with use of a series of cameras throughout the venue, overseen by our own Ciaran Carty. So for that election, as we indicated in our promotions at the time – you could watch, you could listen, you could browse.

Sit down all day, or stay in bed – click on your computer for instant tally figures, click onto our live stream to view the drama as it unfolded, and of course, listen to two days of live, uninterrupted radio broadcast.

The reaction to that was phenomenal, and I can say now, looking back, that we were not prepared for such reaction. Our entire website collapsed from a very early hour, such was the traffic to it from literally all over the world. The coverage was shortlisted for an IMRO National Radio Award that year. We were in two minds whether to engage in blanket coverage of the Eighth Amendment Referendum count on the Saturday morning of that event, but again, encouraged by Pauric and Edmund, and of course the mercurial John Comiskey (ex IT Sligo), we went ahead, and were amazed that even in a simple Yes/No referendum, the demand and hunger for tally figures was huge – and the IT Sligo system again proved its worth. Fast forward to the local elections of May this year and we wanted to raise the bar again. We met with Pauric and Edmund and John, and also this time with Pdraig McGourty, another IT Sligo lecturer. Not only would we again avail of the innovative online tally system in Sligo, we'd attempt to introduce it for the Leitrim election count. Which we did. Successfully again.

Our coverage of the local election counts in Sligo and Leitrim got underway at 9am on the Saturday morning, and we kept broadcasting without interruption until 5am on the following Monday morning.

IT Sligo News: What was the re-action to the multi-media experience from your audience?

The reaction to May's local election coverage has surpassed that of the 2014 elections and even the 2016 General Election.

We had the online tally system, we had cameras streaming online throughout, instant Twitter and Facebook updates and actuality, a radio broadcast with an expert panel of TDs, MEPs, former Ministers, we had crying candidates, emotional family members, angry party officials.

Our multi-media coverage of the election won us the Silver Award at this year's National IMRO Radio Awards – we were up against the big boys, RTE, BBC Northern Ireland, Newstalk, Today FM, and all the rest, and we got Silver. What made it more pleasing is that it was the Digital and Social Innovation Category we'd been nominated for – truly down to the expertise and talents of our IT Sligo crew.

ITS News: Will you be using the same system for future elections and have you any plans to use even more technology like this?

ND: There is no doubt that this is the future of all election coverage we will be involved in, and I suspect other media organisations as well. The only problem is always trying to stay ahead of the curve, anticipating what people want, what they expect. When you go



The Ocean FM team at the IMRO Awards.

full tilt in providing a multi-media experience at an event such as an election count, you can never go back, you always have to try and improve and enhance this coverage.

There is a huge amount of organisation and planning involved, and as a reasonably small regional radio station, we are totally reliant on the hard work and goodwill of all our staff, and those who work with us, the IT Sligo crews, our analysts and contributors. Yes, we have more plans for even more exciting coverage next time out (they're saying Valentine's Day for next General Election). We'll be availing of even more technology, we're meeting the IT crew this week to discuss ideas their end. But that's all I'm telling you for now! General Election 2020 on Ocean FM will be even more mind-blowing.

What I do find extraordinary, is the level of extreme interest the general public have in election counts. Those who are not remotely interested in politics still engage in droves. Why is that?

Is it the rawness of the event, the drama, the depth of human emotion on display, the ebb and flow of electoral success?

It's Reality TV on local radio and long may it last.

I mean, of the tens of thousands of people who were still watching, were online, or listening in the early hours of that Monday morning, how many can now tell me who was fighting it out for the final two seats on Sligo County Council??

ITS News: What do you think is the future of radio in Ireland?

ND: I'm hugely optimistic about the future of radio in Ireland. Despite all the naysayers, I don't believe radio in Ireland will ever die. How we are accessed, and how people listen

to us is changing and will continue to change, but that's something to be embraced, not resisted.

It's content, content, content. Give them what they want and radio will always be relevant. And always remember that ultimately, we are in the entertainment business.

I don't consider our so-called competitors as competitors at all – we welcome the era of the podcast, the explosion of social media, the consumption of information through a multitude of platforms. You roll with that, you try and embrace it, learn from it, make your product more appealing.

Irish people have always had a love of radio – stats show way more so than the UK – and I just don't see that changing greatly, as some are predicting.

What I would say is that some form of Government funding is absolutely crucial in underpinning this service. Whatever form that takes, I'm not sure.

ITS News: How was your experience working with IT Sligo?

ND: I remember your President, Brendan, when he was appointed, saying he wanted the IT to become a more integral part of the local community, to be a driver for much of what goes on in the North West.

The skills, expertise and knowledge of the IT staff we've worked with over the past six years has been overwhelming.

They are innovative, creative, flexible and a pleasure to deal with.

But they spend more time drinking coffee and chatting in the canteen than I ever do – guess that comes with genius?

Only kidding lads – Pauric, Edmund, Pdraig, and John and their staff, a fantastic bunch, we look forward to more projects, and more awards...



Pauric Harte receives his eGovernment award from then Taoiseach, Enda Kenny in 2015.

New Registrar Appointed



Dr. Michele Glackin has been appointed as Registrar as Dr Colin McLean takes a two year sabbatical leave from his position. Dr. Glackin was appointed as Assistant Registrar last year after joining IT Sligo from St Angela's College. We wish Michele all the best in her new position and wish Colin a successful sabbatical in his new role in education overseas.



The next step – professional options for final year students of marketing



Fourth year business students specialising in marketing had the opportunity to hear from IT Sligo graduates regarding their careers in recent weeks. The level 8 BBS Add On Marketing students heard from Karen McGarty and Susanne Kerins regarding their career paths since leaving IT Sligo. The students had a number of visitors speak to them as part of the module Professional Development and Ethics in Marketing during the semester.

Karen McGarty is the Brand and Communications Manager with Aurivo, based in Sligo. She is a graduate of the level 8 Business Ab Initio degree. Susanne Kerins is the

Head of Marketing with Cora Systems, based in Carrick on Shannon. Susanne is a graduate of the level 7 Marketing degree and the level 9 MSc in Marketing. The two speakers took the students through their careers to date which involved working in the not for profit sector, starting their own business and a number of marketing roles in the agri business, engineering and software industries in the North west. They both highlighted the different roads that people may take with a Marketing qualification. Susanne and Karen highlighted the benefits of IT Sligo to them in their chosen careers and gave the students some valuable tips

for their final year and their future professional development.

The students also received an informative talk from Jenni Timoney regarding the New Frontiers entrepreneur development programme which is run jointly between IT Sligo and Letterkenny IT. This talk highlighted the supports available for students who may consider starting their own business in the future. Deborah Seddon of the Careers office and Emma Woods of Collins McNicholas Recruitment and HR Services company also spoke to the students during the semester about CV writing, preparing for interviews and tips about looking

for professional roles.

Lecturer Lisa Dunne noted that it was beneficial for the students to hear from all of the above speakers

in order to give them ‘food for thought’ as they consider their next step on completion of their level 8 degree.



Marketing Lecturer Lisa Dunne with guest speaker, Susanne Kerins. Susanne graduated from IT Sligo with a degree and Master's in Marketing and now is Head of Marketing at Cora Systems.

Accountant's Boot Camp Launched at IT Sligo

Chartered Accountants Ireland launched its online Boot Camp programme to support Senior Cycle Accounting students at an event in IT Sligo in November.

The programme, which is also being launched at events in Cork and Dublin as part of Chartered Accountants Ireland's annual school engagement, is designed to help build a strong foundation in the fundamentals of accounting and will give students an understanding of what it's like to be a

professional accountant.

Recent independent research highlighted concern among accounting teachers that the new Junior Cert Business Studies syllabus does not adequately prepare students for Senior Cycle Accounting. This is despite the growing popularity of the subject at Leaving Cert level with almost one in every seven students now choosing accounting in Senior Cycle.

Boot Camp solves this problem by providing an easily accessible online programme that



teachers can run in their classrooms. Students who join Boot Camp can also take part in the Boot Camp Challenge, a national competition which gives students a chance to test their business smarts in a real-life business simulation. The regional and national winners of the challenge will be honoured at a special ceremony at Chartered Accountants House in May 2020.

Brian Feighan, FCA founder of online learning portal, ProTutor and the creator of Boot Camp, said: “Digital learning is fast becoming an essential part of the student

experience in second level. Practical subjects such as accounting are a perfect fit for this trend. Under the guidance of their teachers, Boot Camp will help students master the fundamentals of accounting and develop their understanding of how to use financial information to make smart business decisions. We hope that Boot Camp will set the next generation of business leaders on their paths to success.”

The Boot Camp programme is now open and further information can be found at chartered-bootcamp.com



Brian Feighan, John Munnelly, Arlene Gibbs, Sinead Fox-Hamilton, all of Chartered Accountants Ireland, with John Gaynor, Maria Scanlon, Marie Moran and Michael Barrett of IT Sligo's Faculty of Business & Social Studies.

IT Sligo Sub Aqua Club History



The club was set up in 1993 by Dr. Bill Crowe with the assistance of Enda Gibney, Dave Clarke, Noel Moran and Dr. Richard Thorn. In 1994 the club became affiliated to the The Irish Underwater Council (C.F.T.).

The main aim of the club is to introduce members (especially our students) to the world of scuba diving, while acquiring internationally recognised dive qualifications (C.F.T./C.M.A.S.). We encourage an interest in aspects of diving related to courses in IT Sligo, such as Environmental Science, Marine Ecology, Ecotourism, Archaeology, Photography, Marine

Science and Engineering and Recreation and Leisure Studies. Indeed, members have dived in such diverse places as Australia, the Caribbean, the Red Sea, Greece, Croatia, Indonesia, the Galapagos Islands, Sweden as well as all around Ireland. In the first year (1993) the club had 10 active snorkelling members however within several years it had grown to 26 active divers/snorkelers. This included:

- 1 Mon 1: Bill Crowe
- 10 Club divers: Enda Gibney, Monica Sullivan, Noel Moran, Donal Kelly, Damien Allen, Keelin Allen, Peter Berry, Katie O Donovan, Ken McNamara and

Ciaran McDonagh.

- The remaining members were either trainee or novice standard.
- Over the years it has grown from strength to strength, with usually several hundred signing up at the start of the year, and up to 30 divers going on the Easter Diving trip each year.
- Most divers reached Club Diver status. Some divers who did their first dive with IT Sligo have gone on to become Leading Divers (e.g. Seyed Mahdi Entezarmahdi), or Diving Instructors (e.g. Oliver Buckley) with CFT; or Scientific Divers (e.g. Damien Allen and Ann-Marie Mahon). These, along with

some experienced club divers, such as Paul Carr, Arnaud Teyssou, Kenneth Mayock, Niall O'Flaherty and Alan Conboy, active in other clubs around Ireland, have come back regularly on our club diving trips, long after they had left IT Sligo, to help by leading dives. We would have found it hard to run the club without their help.

• In addition some club members have held other qualifications, as well as CFT ones including PADI Open Water Diver & Advanced Diver, BSAC Diver Leader & Sports Diver. Several past members hold a commercial (HSE) qualification as well (e.g. Ann-Marie Mahon and Eoin Howard). We have trained many foreign students on Erasmus grants from all round Europe and from Canada and Brazil, to Trainee (Diver *) status. The location of scientific diving marine life

surveying projects that club members have been involved with include: The Wakatobi Marine National Park in Indonesia, or the Modiolus Project in Strangford Lough.

Club Activities

The club hold weekly theory lectures and pool training sessions between October and December each year. These take place from 8.00 pm to 9.30 pm in the college and from 10.00 to 11.00pm in Sligo Sports Complex Pool respectively, on Thursday nights. We generally snorkel or dive on Saturday or Sunday mornings at Mullaghmore. We also try to organise trips away during college holidays. Membership is kept very cheap as we do not have our own boat, and College pays for the pool hours and supply and servicing of all the gear.

Heat Pump Seminar



The IT Sligo Contract Research Unit held a Heat Pump seminar on Friday 22nd November. The one day CPD accredited course given by Paul Kenny (Tipperary Energy Agency) was fully booked with 35 attendees including engineers, installers/contractors, technical advisors, lecturers and county council planners travelling from far and wide as well as locally.

Heat-pumps are electrical devices which convert energy from the air outside of your home into useful heat, in the same way a fridge extracts heat from its inside. In well insulated homes they are very economical to run. They are an extremely efficient alternative to oil, gas, solid fuel and electric home heating systems. Different types of heat pump systems draw heat from different sources: air, water or the ground. Heat generated is released via radiators, underfloor heating or warm air. All heat pump systems, excluding those providing warm air to the home, can supply all of the hot water needed for baths, showers and sinks.

The course is aimed at enhancing the knowledge base of the engineering sector in Ireland with respect to heat pumps in homes and commercial buildings. The most cost-effective carbon abatement measure for the built environment identified in the Climate Action Plan is to retrofit existing dwellings that use oil boilers to a B2 equivalent BER. The vast majority of homes in Sligo are reliant on oil boilers for their heating requirements. The Climate Action Plan recommends installing 600,000 heat pumps in residential buildings and 25,000 heat pumps in commercial buildings as part of a number of other actions to achieve our 2030 emissions reduction target.

Pictured are the Heat Pump course attendees after completing a site visit to Nazareth House to view the Ground Source Heat Pump installed in the Huf Haus building as well as the assisted living residential units which are also using heat pumps.



IT Sligo Sport

CUFL PREMIER DIVISION NORTH



DCU 0-4 IT Sligo Men's A team

IT Sligo Men's A-Team went into their last league game away to DCU knowing a draw or win would guarantee them second place having already cemented a quarter-final spot. It got better than that with UCD losing to Maynooth University and IT Sligo winning 4-0, which left them joint top with the biggest university in Ireland and level with the league of Ireland side on 12pts.

We began with DCU starting brightly and having the first shot on Sligo's netminder Jason Quinn who comfortably saved. Soon after IT Sligo went 1 up after some excellent play down the left side by Ryan O'Reilly and Darren Collins who found the lethal boot of Mark Byrne who buried it into the top corner from 18yards. Five minutes later Sligo went 2 up, this time Sligo played the ball out from the back again which found Ryan O'Reilly

in space on the left side, he then played a wall pass off Dan Beya and curled his shot from 20 yards into the bottom corner of the DCU net. Sligo were well on top at this stage and passing the ball with great purpose, this time saw the midfield partnership of Brian Kavanagh and Niall Morahan combine to find the impressive Ronan Gallagher who went by two DCU defenders to finish into the top corner.

HT DCU 0-3 IT Sligo

The second half was ten minutes in and DCU again had a good chance from a corner but for some good defending by centre half pairing Ben Treanor and Oisín O'Reilly to clear the danger. Again Sligo went on the attack and this time Scott Lynch was fouled and the resulting free-kick by Kavanagh found Ryan O'Reilly in the box to finish and score his second of the game and Sligo's 4th. IT Sligo were dominating

at this stage with substitutes Gary Higgins and Ryan Norris going close to adding to the scoreline.

IT Sligo now face TUDBC at home on the 12th of February next year in the quarter-finals of the CUFL premier division. Once again we would like to thank our Main Sponsor Unirooms for all their help so far.

Final Score

DCU 0-4 IT Sligo Men's A-Team

Starting team.

Jason Quinn, Scott Lynch, Ben Treanor, Oisín O'Reilly, Ryan O'Reilly, Brian Kavanagh, Niall Morahan, Dan Beya, Darren Collins, Mark Byrne, Ronan Gallagher.

Subs. Gary Higgins for Beya 50min
Ryan Norris for Ryan O'Reilly 55min
Roland Andersons for Morahan 60min
Darren Somer for Collins 65min
Brandon Manues for Byrne 65min
Unused, Trevor Martin

IT Sligo to Face UL in Sigerson Cup



The draws for the Sigerson Cup were made recently and IT Sligo will play UL at home in the first game of 2020 on January 12th. If they are successful in their first round game they would meet either Athlone IT or Letterkenny IT in the quarter-finals which are set for 19th of January.

The full Sigerson draw is:

Round 1 Jan 12th 2020 (First team named has home advantage)

- (a) NUIG v UCG
- (b) IT Tralee v IT Carlow
- (c) IT Sligo v UL
- (d) Athlone IT v LYIT
- (e) UCD v UU
- (f) Maynooth v St Mary's
- (g) DCU v Garda College
- (h) QUB v TU Dublin

Best of luck to our GAA teams in 2020.

New Football Sponsors

IT Sligo men's soccer club are delighted to announce details of a new main sponsor for the club, who compete in the Premier Division of the Third Level Colleges league.

The partnership sees Unirooms appear on the club's new home and away kits as well as new travel and training gear supplied by Jako Sport in Sligo Town.

GAA Ladies Winner



Congratulations to IT Sligo graduate Rachel Kearns who received her first All Star for her performance with the Mayo Ladies Gaelic Football Team in the All-Ireland senior series.

Windsurfing

Student Finn Mellon has been titled National Windsurfing Champion of Ireland after winning another competition in Brandon Bay, Kerry. The 21 year old IT Sligo student, also came second in the Tíree Wave Classic wind surfing competition. Finn said: "I'm super happy to come second in this event, it's the best result I've had so far on the UK Pro wave tour. I'm hoping I can take out the overall title over the next few weeks in my next contest in Cornwall.

"I decided to study in Sligo, so that I could continue to train and practise with some of Europe's best waves while studying, health science and physical activity which I find fits really well with my sporting background." Well done Finn from all at IT Sligo.

