# **E&CE News Bulletin**

Highlights from 2023



# JNIVERSITY OF Department of Electronic and Computer Engineering



Dear Colleagues,

Please find below the Electronic & Computer Engineering (E&CE) newsletter highlighting some of our research and outreach activities. The objective of this bulletin is to make our current activities more readily accessible, an important part of the E&CE stakeholder engagement strategy. We hope it will provide some insight regarding research collaborations with our industry partners.



## UL researcher receives outstanding service award for promoting gender diversity in STEM

Research fellow Dr Sinéad O'Keeffe has been given the inaugural Outstanding Service Award for Promoting Gender Diversity in Science, Technology, Engineering and Mathematics (STEM) by the Institute of Electrical and Electronics Engineers (IEEE) Sensors Council.



## Public Sector Digital transformation Awards 2023

University of Limerick has won the Higher Education Partnership of the Year award at the Asia Matters Business Awards 2023. The award was presented by former government minister Alan Dukes at an award ceremony held in the Radisson Blu, Golden Lane in Dublin. The project is led by Associate Professor Sean McGrath from the Department of Electronic and Computer Engineering and Yi Bao, Director of China Engagement at UL.

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# Cyber-Range Creative Computing Workshop with UL and Bath Spa University

A very impressive session on Cyber range was conducted in Bath Spa University, UAE with collaboration of Cyber skills and University of Limerick, March 6th 2023. A number of students and faculty members attended this workshop.





### Public Sector Digital transformation Awards 2023

Tom Newe and Eoin O'Connell of ECE attended the Public Sector Digital Transformation Awards 2023 in the Shelbourne Hotel on 5th October 2023.

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# Steve Walker, Founder and CEO of Cobaltix Labs gives guest talk

On Thursday, November 9, we welcomed guest speaker Steve



Professional Diploma in OT Security-Growth in numbers

The recently launched Professional Diploma in OT Security Programme has seen a doubling in the number of applications received this year compared to last. Walker, founder and CEO of Cobaltix Labs and his daughter, Kylie (future CEO) to UL. Steve was visiting UL to speak to our students about the cyber threats his company has managed in the recent past and how cyber resilience should be built and managed for companies.

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#### OCEANS 2023 Limerick – The First OCEANS conference in Ireland

The Centre for Robotics and Intelligent Systems, E&CE, hosted IEEE MTS OCEANS 2023 conference & Exhibition from 5<sup>th</sup> to 8<sup>th</sup>of June at University of Limerick. The event was endorsed by the UN Decade of Ocean Science.

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# Electronic Imaging 2023 in San Francisco

The Electronic Imaging 2023 symposium took place in San Francisco in January 2023, a highlight of which was the Autonomous Vehicles and Machines (AVM) conference.

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#### International Student Grant (IISG)

Assistant Professor Sanober Farheen Memon, E&CE, was awarded funding to attend the International Student Grant (IISG) at the International School on Light Sciences and Technologies (ISLiST) 2023 at Santander Spain held in June 2023.



### International Workshop on Future Mobility and Applications

An online International workshop was conducted with collaboration of UL and COM19UK, 22 November 2022. The governments around the world have been supporting various measures of E-Mobility for both private and public transport, focusing on the contribution to UN future transport policy goals.

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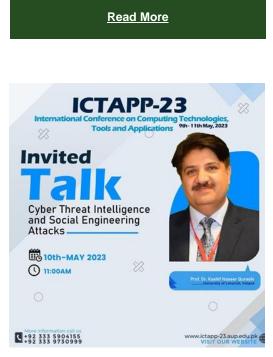
# Cyber-Shock – SFI NCF award

Tom Newe was successful in the SFI National Challenge Fund with



#### **UL Open Days**

Students embarked on an exciting journey towards visiting our third level Education campus for UL Open Days on both Thursday 19th and Friday 20th October.



# International Conference on Computing Technologies, Tools and Applications

The 1<sup>st</sup> International Conference on Computing Technologies, Tools and Applications (ICTAPP-23) the Cyber Shock project. The aim of Cyber Shock is to build Ireland's Cyber Resilience against Cyber Attacks.

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## D<sup>2</sup>iCE researchers kick off Personae project in Odense Denmark

On May 2nd and 3rd 2023, D<sup>2</sup>iCE researchers Professor Pepijn van de Ven and Assistant Professor Eoin Martino Grua took part in the kick-off meeting for the Personae project in Odense Denmark. D<sup>2</sup>iCE is responsible for the use of machine learning in this innovative project funded by the Innovation Fund Denmark.

conference was hosted by Institute of Computer Sciences and Information Technology (ICS/IT), The University of Agriculture Peshawar, Pakistan. It was held on 9th, 10th and 11th May, 2023 in Peshawar (the city of flowers).



# Your Smartphone and the Environment

On Friday the 10th of November at University of Limerick, Professor Colin Fitzpatrick examined the lifecycle of a smartphone in a Science Week lecture that would take you on a global journey covering issues such as mining, manufacturing, obsolescence, and e-waste.



### Bringing cybersecurity knowledge to a wider audience

For some people, the career path is signposted early. In the case of Dr Lubna Luxmi Dhirani, the source of her life's passion was revealed at an exceptionally young age.

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BELLAROMA

While at Electronic Imaging 2023 in California with the support of UL and Lero, Dept. of E&CE's Patrick Denny spoke with Robert Dingess whose consortium



# NICE Conference in Seattle

Tom Newe attended NICE 2023 in Seattle to present the collaborative work that CyberSkills does with the Virginia Tech.

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# Automated Inspection for Offshore Wind Survey

Offshore wind turbines are examples of superb industrial design but often struggle to survive in the harsh offshore environment. Both the turbine structure above the waterline and the foundation structures are subject to different stresses such as intense dynamic controls 70% of the road marking materials in the USA and Europe.





D<sup>2</sup>iCE team at IMVIP 2023

The D<sup>2</sup>iCE team showcased their expertise in computer vision by unveiling six research papers at IMVIP 2023, including the best paper award at the conference, which was awarded to Aryan Singh.

loading due to exposure to waves, currents, and seabed scour.





#### **AutoSens**

Patrick Denny chaired at this conference, which is the largest conference in the world dedicated to automotive imaging, promoting UL, Dept. of E&CE, D2ICE and UL@Work. There was considerable emphasis on selfdriving safety and simulation, including sessions on image quality, AI and ML and what is next for Lidar.



# DePuy Synthes OT security event

Tom Newe and Lubna Luxmi, E&CE Dept. attended and presented at the DePuy Synthes OT security event in DePuy Cork in March 2023.

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# Erasmus+ Visitor Assoc. Prof. Cuong PHAM-QUOC

Assoc. Prof. Cuong PHAM-QUOC from Computer Engineering Department, University of Technology, Vietnam visited E&CE, UL. Prof. Kashif Naseer Qureshi hosted the visitor in UL and conducted the different events.

| Future Mobility   |                 |
|---|-----------------|
| International Research Collaboration                              | Cooking Pharm C |
| Ansocial Professor<br>UL - Opherssenth, University<br>of Limerick |                 |
|   |                 |

# On Day International Workshop

In June of this year (2023), a International Workshop commenced to explore potential research collaboration opportunities between four institutions, Bath Spa University, Dubai, Alama Iqbal University and University of Technology, Vietnam.

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### Online Seminar on Digital Strategies to Protect the Networks

During the seminar, Prof. Kashif Naseer Qureshi discussed the

increasingly interconnected and digital world, and the security of our networks which is paramount. Organizations face evolving cyberthreats and vulnerabilities that require proactive strategies and cutting-edge solutions.

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# Department of Electronic and Compute Engineering