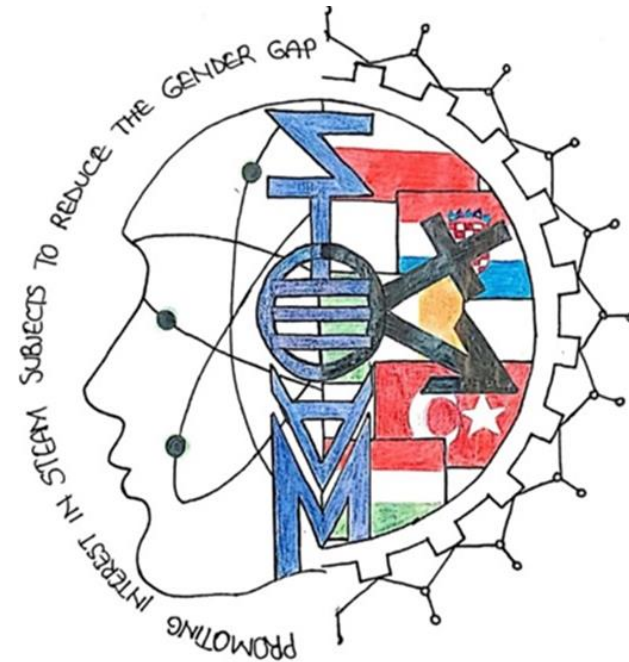


Some of Ireland's Best Known Women in Technology



Aoife Gowen

Kilkenny native Dr Aoife Gowen's research area is multidisciplinary, involving applications of sensor technology and chemometrics to biological systems.



Immortalised in art form as part of the Accenture Women on Walls unveiling at the Royal Irish Academy (RIA), Gowen was one of three Irish researchers who secured €2m in EU R&D funding each as part of the prestigious European Research Council (ERC) Starting Grants in 2013. She received the funding for her novel chemical imaging techniques that will allow scientists to see how water interacts with surfaces at a very high resolution, and to explore the properties of materials.

Debra Laefer

An art historian turned engineer, Prof Debra Laefer also featured in the RIA Women on Walls unveiling, as well as the Faces of Research films from University College Dublin (UCD). With degrees from NYU, Columbia University and the University of Illinois at Urbana-Champaign.



Laefer's research aims to prevent damage to buildings above tunnel excavation by developing a 3D modelling system. She currently heads the Urban Modelling Group at UCD and is associate editor of four journals. Laefer is a fellow of the Japan Society for the Promotion of Science, as well as a Fulbright fellow.

Tanya Levingstone

A graduate of medical mechanical engineering at Dublin City University (DCU), Dr Tanya Levingstone currently works as a postdoctoral researcher in the Tissue Engineering Research Group (TERG) at Royal College of Surgeons Ireland (RCSI).



Last year, Levingstone, her team at TERG and a group of researchers from the AMBER centre discovered a new material that repaired damaged knee cartilage on a horse.

This patented, multilayered 3D porous scaffold - named ChondroColl - returned the injured horse to competitive showjumping.

Sarah McCormack

Sarah McCormack is associate professor of civil structural and environmental engineering at Trinity College Dublin. Another Women on



Walls star, McCormack earned a PhD from University of Ulster for her work on a novel method for solar concentration using quantum dots. Having contributed towards dozens of peer-reviewed publications, her research now explores photovoltaic panels that convert solar energy into direct current electricity.

Caitríona Lally

Caitríona Lally is a bioengineering professor at Trinity, and also features in the group portrait at the RIA. Lally scored a bachelor's degree in engineering from University of Limerick (UL) before securing her PhD at Trinity. Her research focuses on arterial tissue mechanics, vascular imaging, vascular mechanobiology and tissue engineering. In 2014, she secured an ERC Starting Grant for a five-year €1.5m project that will advance research in arterial fibre remodelling for vascular disease diagnosis and tissue



Ellen Roche

Dr Ellen Roche's most recent work has helped to develop an innovative soft robotic sleeve. The device can help a heart to beat, with Roche named as first author on the paper published in Science Translational Medicine. Roche is an MIT postdoctoral research fellow in biomedical engineering in the college of engineering and informatics at NUI Galway (NUIG). She secured €100,000 in funding for the project last summer, having previously studied and worked at Harvard and Trinity



Niamh Shaw

As an engineer, scientist and performer,

Niamh Shaw wants to awaken people to the wonders of STEAM by merging it with the creative arts. Co-founder of [STEAMakers](#), Shaw is core lectures chair of the Space Studies Programme 2017 at the [International Space University](#).



Her achievements saw her included in last year's [Science 50](#) list on Siliconrepublic.com, as well as our [Women Invent](#) series. Currently a member of [Crew 173](#), Shaw recently worked on a simulated Mars mission project in the Utah desert for the Mars Desert Research Station. With higher-than-sky-high ambitions, Shaw aims to get to space within the next eight years.

Lisa Looney

Professor Lisa Looney is the newly appointed executive dean of the DCU Faculty of Engineering and Computing, and the first woman to fill this role. She completed her PhD at the EU Institute for Advanced Materials in the Netherlands, focusing her research on 'hydrogen attack' in pipelines that carry hydrocarbon gases.



She later moved to DCU, where she became a founding member of the School of Mechanical and Manufacturing Engineering and director of the Material Processing Centre.

Her current research includes work on developing new biomaterials such as replacements for bone tissue and coatings for implants.

Madeleine Lowry



Madeleine Lowry is a professor in the School of Electrical and Electronic Engineering at UCD, where she uses engineering methods to model the brain, nerves and muscles in a bid to improve technology to treat tremors in Parkinson's disease. This includes research into electromyography, bio-electromagnetics, deep brain stimulation & neural control of movement.

Laoise McNamara

In 2016, Dr Laoise McNamara was appointed personal professor in biomedical engineering at NUIG, where she has spent 10 years as an engineering lecturer. She currently leads a research group of PhD students and postdoc fellows in the field of mechanobiology, which tries to understand how bone responds to mechanical forces. McNamara has an exceptional research track record with international awards and peer-reviewed publications.



Brianne Mulvihill



Brianne Mulvihill has a bachelor's degree in civil engineering and a PhD in bioengineering. Currently based in the open innovation office at Accenture's Centre for Innovation to develop artificial intelligence (AI) technologies, Mulvihill works with global start-ups and the broader Irish tech ecosystem to bringing AI tech to industry.