



**Professor Tadhg S. O'Donovan**

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## Biography

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Professor Tadhg O'Donovan is the Head of School for Engineering and Physical Sciences at the Dubai Campus of Heriot-Watt University. The School offers undergraduate engineering degree programmes in Mechanical, Automotive, Energy, Chemical, Electrical and Electronic, Robotics, Autonomous and Interactive Systems. At postgraduate level, the school offers Masters level degree programmes in Energy, Renewable Energy Engineering and Advanced Mechanical Engineering.

Tadhg graduated from Trinity College Dublin with a Bachelor's degree in Mechanical and Manufacturing Engineering in 2001 and a PhD in 2005. He continued in Trinity College as a Postdoctoral Research Fellow and lecturer before joining Heriot-Watt University, Edinburgh in 2007 as a lecturer in Mechanical Engineering and became an Associate Professor in 2015. In January 2018 he was appointed as the Associate Head of the School for Engineering and Physical Sciences at the Dubai Campus and in August 2019 will be promoted to Professor within the Institute of Mechanical, Process and Energy Engineering.

Professor O'Donovan has a research background in thermal science which now focuses on solar energy conversion, systems and storage. His research group, nESSI (novel Energy Systems and Storage Integration) is mainly funded by the EPSRC and Innovate UK and relates to the development of low-cost solar collector technology for domestic hot water systems, phase change thermal storage devices, characterisation of high concentration multi-junction solar cells and direct charging of molten salt high temperature thermal stores. He has established collaborative links with industry and employs a techno-economic approach to support renewable energy companies such as Soltropy, Sunamp, Dukosi and AES Solar. His research also includes the thermal management of electronics, bio-thermal diagnostics, solar powered water purification using membrane distillation and thermal management of Fischer-Tropsch processes for Gas to Liquid conversion.

Eight PhD students have graduated under Professor O'Donovan's guidance and he has published in excess of 80 research papers in peer reviewed conferences and high impact factor journals. Professor O'Donovan leads the nESSI (novel Energy Systems and Storage Integration) research theme within EPS and represents HWU for the Energy theme of the Scottish Universities Physics Alliance (SUPA); the Director of the Scottish Institute for Solar Energy Research (SISER) and Honorary Education Secretary for Energy Institute – Middle East.