

学术报告会

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Autonomous Robots - From Invention to Innovation

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Abstract:

With autonomous maritime systems, both surface and underwater, now mature technologically, the research focus is changing to multi-platform coordination and cooperation to achieve persistence, robustness to individual platform failures and improved mission execution, both in terms of timelines but also in terms of the quality of the intelligence gathered. It is also clear that marine drones will shortly be applied to many more applications than the current confines of mine counter measures in the military, data gathering and inspection in the ocean science and off-shore domains. Border security, search and rescue, light intervention and long term monitoring of the ocean will all become areas of growth.

As Chairman of CONSEQUENTIAL ROBOTICS, in the talk he would also introduce the Miro companion robot and the care free home system - affluent baby boomers scale down and trade up their home living environment when they become elderly and need support. We're building a developer community for Miro.

Finally he can also talk generically about some of the work going on in the Edinburgh Centre for Robotics (of which he is the founding Director) with humanoids e.g. NASA Valkyrie.

Biography:

Professor **David Lane** is Director of the Edinburgh Centre for Robotics and Professor of Autonomous Systems Engineering in Heriot-Watt's School of Engineering and Physical Sciences. He received the BSc and PhD from Heriot-Watt University, Edinburgh, UK, respectively in 1980 and 1986, both in Electrical Engineering.

He previously established Heriot Watt's Ocean Systems Laboratory, with an international reputation and funding in marine robotics, publishing nearly 200 cited publications. In 2001 he founded SeeByte Ltd, commercialising two decades of marine robotics research. As CEO until 2010, he led the company's evolution from start-up to a multi-million dollar award-winning organisation located in Edinburgh and San Diego and oversaw the setup of SeeByte Inc in the US. In 2016, he also took the role of Chairman of Consequential Robotics in London, delivering the best of British & international design and engineering to the development of next generation consumer and commercial robots.

He also led the development of the UK's National Robotics and Autonomous Systems (RAS) innovation strategy for the Minister for Universities and Science, motivating and influencing over £200M of investment in Robotics and Autonomous Systems R&D by the UK government. As director of EURobotics AISBL, he helped shape the EU Horizon2020 Robotics public-private partnership and the direction of €700M in funding from the European Commission.

Professor Lane has been elected to Fellowships of the Royal Academy of Engineering and the Royal Society of Edinburgh, the Society for Underwater Technology, the Institution of Engineering and Technology and the Royal Geographical Society. He was appointed Commander of the Order of the British Empire for services to Engineering in the 2016 Queen's New Year Honours list.