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## Autonomous Vehicle Development - Technical, Ethical and Social Challenges



Prof. Robert Shorten  
UCD



Dr. Filippo Santoni De Sio  
TU Delft



Dr. Gráinne Kirwan  
IADT



Mr Rob Corbet  
Arthur Cox

Thursday, 6<sup>th</sup> April 2017 at 6.15pm

William Jefferson Clinton Auditorium, UCD, Belfield

Moderated by Prof. Maeve Cooke, UCD School of Philosophy



# Biographies



**Prof. Robert Shorten – UCD School of Electrical & Electronic Engineering**  
**Partial Autonomy and its Role in Solving Societal Challenges**

Professor Shorten graduated from UCD, with a B.E. degree in Electronic Engineering in 1990, and a Ph.D. degree in 1996. From 1993 to 1996 Professor Shorten worked at Daimler-Benz research labs in Berlin where completed his Ph.D. work, and was also the holder of a Marie Curie Fellowship. In 1996 he was invited to work as a visiting fellow at the Center for Systems Science, Yale University, commencing a long-standing research collaboration with Professor K. S. Narendra on the study of switched systems. Since returning to Ireland in 1997 as the recipient of a European Presidential Fellowship, Professor Shorten has been active in a number of theoretical and applied research areas including: computer networking; classical automotive research; collaborative mobility (including smart transportation and electric vehicles); as well as basic control theory and linear algebra. Professor Shorten is a co-founder of the Hamilton Institute, National University of Ireland, Maynooth, where he was a Full Professor until March 2013, and was also the holder of a Visiting Professorship at TU Berlin in 2011-12. From 2013 to 2015 he led the Control and Optimization activities at IBM Research Ireland in the area of Smart Cities. He is currently Professor of Control Engineering and Decision Science at University College Dublin and is a consultant to IBM Research.



**Dr. Filippo Santoni De Sio – Delft University of Technology**  
**Meaningful Human Control over Automated Driving Systems**

Filippo Santoni de Sio is Assistant Professor in Philosophy and Ethics of Technology at Delft University of Technology, The Netherlands. He is the Robot Ethics advisor at the Dutch network Robovalley and a member of the Foundation for Responsible Robotics. He has published one monograph, two edited collection and more than thirty philosophical papers on: moral and legal responsibility, the ethics of cognitive enhancement, and robot ethics. His last book is the edited collection *Drones and Responsibility: Legal, Philosophical and Socio-Technical Perspectives on Remotely Controlled Weapons* (Routledge 2016, with Ezio Di Nucci). He has recently prepared a White Paper on ethics and self-driving cars for the Dutch Ministry of Infrastructure and Environment, and has just received a three-year research grant titled “Meaningful Human Control over Automated Driving Systems” from the Dutch Research Council (NWO). His personal website is: [filipposantoni.net](http://filipposantoni.net)



**Dr. Gráinne Kirwan – Institute of Art, Design and Technology**  
**Human Cognition and Autonomous Vehicles**

Dr. Gráinne Kirwan is a chartered psychologist (British Psychological Society) and a lecturer, researcher and author based in the Institute of Art, Design and Technology in Dun Laoghaire. Her specialisms include the interaction between psychology and technology, especially in relation to online interactions. Her publications include four academic books examining cybercrime and online behaviour. Dr. Kirwan is a member of the editorial board of the international journal ‘Cyberpsychology, Behavior, and Social Networking’, as well as a reviewer for several other journals, conferences and academic book publishers. She devised the initial concept, and led the development team, of the MSc in Cyberpsychology in IADT. She is co-chair of the Annual CyberPsychology, CyberTherapy and Social Networking conference, and is the current chair of the Psychological Society of Ireland's Special Interest Group in Media, the Arts, and Cyberpsychology.



**Rob Corbet – Arthur Cox**  
**Autonomous Vehicle Development - The Emerging Legal Framework**

Rob Corbet is a partner and head of the Technology & Innovation Group in Arthur Cox. His practice covers all legal aspects of technological innovation and his privacy and data protection practice is particularly acknowledged as market leading. Rob advises some of the world's largest technology companies on emerging laws and regulations, including the impact of the EU General Data Protection Regulation which will radically overhaul Europe's privacy rules from May 2018. Rob has been a partner in Arthur Cox since 2005 and he is a member of the Irish Government's Data Forum.



**Prof. Maeve Cooke – UCD School of Philosophy**  
**Moderator**

Maeve Cooke is a Full Professor in the School of Philosophy, University College Dublin, and a member of the Royal Irish Academy. Her current research interests focus on questions of freedom and political authority; she is also working on questions relating to conscience-based, democratic dissent and on political violence. Her principal book publications are *Language and Reason: A Study of Habermas's Pragmatics* (MIT Press, 1994) and *Re-Presenting the Good Society* (MIT Press, 2006). She is the author of many articles in scholarly journals and books in the areas of social and political philosophy. She has held visiting appointments at universities in the USA and Europe and is on the editorial board of a number of scholarly journals.