

R4 Trustworthy Human-AI Symbiosis: The Next Stage of Revolution

Professor Ming Hou, a Fellow of the Canadian Academy of Engineering, the Engineering Institute of Canada, and IEEE, Adjunct Professor of University of Toronto, and the Principal Scientist at Defence Research and Development Canada recently visited the University of Cambridge, the United Kingdom (UK). During his visit, Prof. Hou delivered a Distinguished Lecture entitled “R4 Trustworthy Human-AI Symbiosis: The Next Stage of Revolution”

Aiming to foster meaningful academic and research exchange between Prof. Hou and leading universities in the UK, Ireland, and Canada, the IEEE UK and Ireland SMC Local Chapter successfully organized and hosted the visit of Prof. Hou 11-14 August 2026. The program included a combination of technical lectures, research meetings, lab visits, and institutional discussions across several UK and Canadian universities, including the Cambridge University, the University of Glasgow, UK, the Toronto Metropolitan University, and University of Calgary, Canada. It attracted enthusiastic engagements and brought together faculty members, researchers, academic leaders, and students to discuss emerging challenges and opportunities in the design and development of trustworthy, interaction-centred, and responsible human-AI symbiotic systems. Prof. Hou’s provoking speeches including his internationally renowned interaction-centred design paradigm, intelligent adaptive system architecture, agentic AI framework, R4 Trustworthy AI certification model, their impacts on the development of cutting-edge human-autonomy teaming systems, human-AI symbiotic decision aids for weapon engagement, international autonomy standards, United Nations’ White Papers on autonomous weapon systems, innovative autonomy R&D programs, and recommended collective community approach to address Human-AI symbiosis issues inspired broad discussions about the contemporary challenges of AI and how to integrate these emerging and disruptive technologies safely and responsibly into the society and what research and development need to be done by academia, industry, and government institutions.

The visit strengthens collaborations among IEEE SMC UK and Ireland Chapters and Canadian and UK universities in areas related to human-AI interaction, intelligent systems, trust in AI-enabled autonomous systems, decision support systems, cognitive engineering, and responsible AI integration and applications. It also provided an excellent opportunity for faculty and students to engage with Prof. Hou’s and IEEE SMC Society’s broad expertise areas and explore future joint initiatives in research, graduate supervision, seminars, and international collaborations.



