

## Distinguished Lecturer Prof. Tadahiko Murata Visits IEEE SMC UK/Ireland Chapter

Prof. Tadahiko Murata from The University of Osaka recently visited the IEEE Systems, Man, and Cybernetics (SMC) UK/Ireland Chapter. During his visit, Prof. Tadahiko Murata visited University College Dublin (UCD, Fig. 1) on May 11th, and Ulster University (UU, Fig. 2) on May 13th, 2026, and delivered three distinguished lectures entitled “Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin” and “Multi- and Many-Objective Optimizations Using Evolutionary Computation Methods.”

In the lecture entitled “Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin,” Prof. Tadahiko Murata introduced the Synthetic Population Project in Japan, which included the privacy protection level of synthetic population data, and real-scale applications of synthetic populations, such as COVID-19 countermeasures. He delivered this lecture at UCD and UU. He and attendees discussed how simulation results are utilized for decision making of decision makers in the target area. The seminar in UU was held hybrid with international and national researchers joined online.

The poster is for the IEEE Systems, Man, and Cybernetics Society Distinguished Lecture Program, presented by Prof. Tadahiko Murata. It details two talks: 'Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin' and 'Multi- and Many-Objective Optimizations Using Evolutionary Computation Methods'. The event is on 11 May 2026, 11 AM - 12 PM, in Geary Seminar Room B003/004. It includes a QR code for registration and a note that lunch will be provided after the event. Logos for UCD School of Knowledge, UCD Geary Institute for Public Policy, UCD School of Computer Science, and NIA are at the bottom.



Figure 1: Call for Attendees and Photo at UCD.

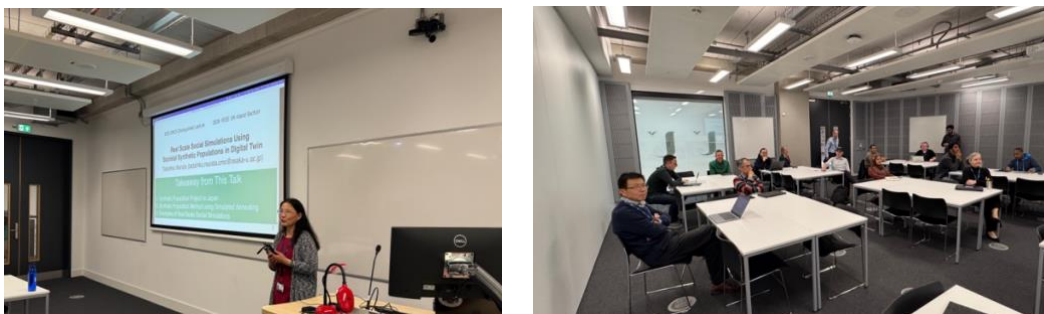


Figure 2: Professor Zheng (UK and Ireland Chapter Chair) and researcher at the talk.

In UCD, he also delivered the lecture entitled “Multi- and Many-Objective Optimizations Using Evolutionary Computation Methods,” Prof. Tadahiko Murata provided an in-depth introduction to the fundamentals of multi-objective computation and the basic idea of evolutionary multi-objective optimization, and Evolutionary Multi-Objective Optimization (EMO) algorithms.

At Ulster, Tadahiko shared his career with IEEE with the IEEE UK/Ireland SMC Chapter Committee members and the newly established IEEE UK&Ireland Ulster Student Branch (Figure 3), valuable suggestions were provided on promoting IEEE membership, arranging IEEE activities, widening the engagement and career development.



Figure 3 Meeting with IEEE UK/Ireland SMC Chapter Committee members and the newly established IEEE UK&Ireland Ulster Student Branch Chair, from left to right: Mr. Sean O’Fithcheallaigh (IEEE Ulster Student Branch Chair), Dr. Idongesit Ekerete UK&Ireland SMC Chapter Vic Chair, Prof. Tadahiko Murata, Prof. Huiru Jane Zheng (UK&Ireland SMC Chapter Chair), Dr. Matias Garcia-Constantino (UK&Ireland SMC Chapter Secretary, Treasure).

During his visit, Prof. Tadahiko Murata also engaged in in-depth discussions with members of the IEEE UK/Ireland SMC Chapter at UCD and UU. His visit laid the foundation for future collaborations and sparked participants' interest and enthusiasm for further exploration in these research fields.