

## **Distinguished Lecturer Prof. Tadahiko Murata Visits IEEE SMC Xi'an Chapter**

Prof. Tadahiko Murata from Osaka University recently visited the IEEE Systems, Man, and Cybernetics (SMC) Xi'an Chapter. During his visit, Prof. Tadahiko Murata delivered two distinguished lectures entitled "Multi- and Many-Objective Optimizations Using Evolutionary Computation Methods" and "Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin." The visit took place from December 16th to 19th, 2024, at Xidian University, China, and received an enthusiastic response.

In 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. 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 Evolutionary Multi-Objective Optimization (EMO) algorithms, the privacy protection level of synthetic population data, and real-scale applications of synthetic populations, such as COVID-19 countermeasures. The lectures were engaging and inspiring, sparking lively discussions among the audience.

During his visit, Prof. Tadahiko Murata also engaged in in-depth discussions with members of the IEEE SMC Xi'an Chapter and the Systems Control and Automation Group at Xidian University. His visit laid the foundation for future collaborations and sparked participants' interest and enthusiasm for further exploration in these research fields.



