

Distinguished Lecturer Visit by Prof. Daoyi Dong at Federal University of Rio de Janeiro 11th December, 2025

Prof. Daoyi Dong visited Federal University of Rio de Janeiro, Brazil, on November 11th, 2025, where he delivered an IEEE Distinguished Lecture (of IEEE Systems, Man and Cybernetics Society) titled "Quantum estimation and control: an introduction", organized by Prof. Francois Impens. The lecture attracted many attendees, including students, researchers, and professionals from the fields of engineering and quantum technology. Prof. Tiago H. Falk (a BoG member and Distinguished Lecturer of IEEE Systems, Man and Cybernetics Society) and Prof. Paulo S. R. Diniz (IEEE Life Fellow, Professor from Programa de Engenharia Elétrica, COPPE/Poli/UFRJ).

Quantum technology is a promising future technology where unique quantum characteristics are taken advantage of to develop faster computation, securer communication and high-precision sensing than their classical (non-quantum) counterparts. Estimation and control of quantum systems are two important topics for developing powerful quantum technology. In this talk, Prof. Dong gave an introduction to quantum estimation and control and share several results on quantum state estimation, quantum detector tomography, quantum Hamiltonian identification, quantum filtering and quantum robust control.

The success of the event was evident in the engaging discussions that followed the lecture, with participants keen to explore further the implications of these advancements in their respective fields. Following the lecture and discussion, together with Prof. Tiago H. Falk and Prof. Paulo S. R. Diniz, Professor Dong also joined the annual party of Engineering students/staff at Federal University of Rio de Janeiro and had several meetings to interact with academic staff from the Engineering faculty. These interactions attracted new IEEE SMCS members and initiated the exploration of forming an SMCS Chapter there.



Figure 1: Prof. Daoyi Dong presents the IEEE SMCS Distinguished Lecture on 11th December, 2025, at Federal University of Rio de Janeiro, Brazil.

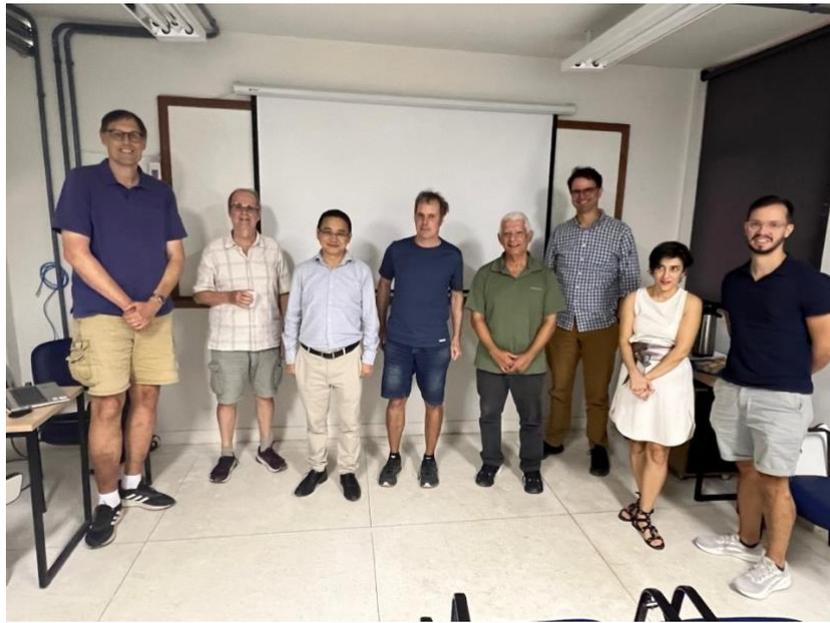


Figure 2: Partial attendees at Federal University of Rio de Janeiro, Brazil attending the IEEE SMC Society Distinguished Lecture on site.



Figure 3: Professor Dong joined the annual party of Engineering students/staff at Federal University of Rio de Janeiro after the Distinguished Lecture, together with Prof. Tiago H. Falk (left) and Prof. Paulo S. R. Diniz (middle).