



# International

*Innovation in Knowledge Based and Intelligent  
Engineering Systems*



## INVITED SESSION SUMMARY

**Title of Session: Dynamic System Modeling and Simulation**

**Name, Title, and Affiliation of Chair:**

Prof. Zeev Volkovich, Braude College of Engineering, Karmiel, Israel  
Prof. Oleg Granichin, St. Petersburg State University, Sankt-Petersburg, Russian Federation  
Dr. Renata Avros, Braude College of Engineering, Karmiel, Israel

**Details of Session (including aim and scope):**

This special session focuses on cutting-edge dynamic systems modeling, simulation, and control developments. Participants will explore novel methodologies and practical applications across diverse fields, including engineering, biological sciences, and more. The session aims to bridge theory and practice, highlighting innovative solutions and interdisciplinary approaches that address real-world challenges in dynamic system analysis.

Papers are invited in the following (but not limited to) topics:

- Modeling of Nonlinear and Time-Varying Systems
- Multi-Agent System Dynamics
- Data-Driven Modeling and Machine Learning Integration.
- Simulation of Physical and Biological Systems.
- Deep Learning Methods in Dynamic System Modeling and Simulation
- By fostering interdisciplinary collaboration and showcasing cutting-edge research, this session aims to benefit the community by advancing the development and application of robust dynamic system modeling and simulation techniques.

The special session convokes researchers, practitioners, and students from diverse fields, including engineering, mathematics, physics, computer science, biology, and economics. Whether the focus is on theoretical foundations, computational methods, or practical applications of dynamic system modeling, this session offers something for everyone. By fostering interdisciplinary collaboration and showcasing cutting-edge research, the session aims to advance the development and application of robust techniques for understanding and controlling complex systems. Real-world applications will be highlighted to inspire innovation and address critical challenges in various fields.

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

Dr. Elena Ravve Braude College of Engineering, Karmiel, Israel  
Prof. Pavel, Shcherbakov Institute of Control Sci, Russia  
Prof. Mingyue Ding, Department of Biomedical Engineering College of Life Science and Technology Advanced Biomedical Imaging Facility, Medical Ultrasound Laboratory, Huazhong University of Science and Technology, Wuhan, China  
Prof. Zeev Volkovich, Braude College of Engineering, Karmiel, Israel  
Prof. Oleg Granichin, St. Petersburg State University, Sankt-Petersburg, Russian Federation  
Dr Renata Avros, Braude College of Engineering, Karmiel, Israel  
Dr. Katerina Korenblatt, Braude College of Engineering, Karmiel, Israel

**Website URL of Call for Papers (if any):**

**Email & Contact Details:**

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