ARCAI 2024 Special Session "A new development in industrial control strategies with fractional-order theory"

Principal Organizer(s): Utkal Mehta, G. Lloyds Raja, Sudipta Chakraborty and Sheikh Azid

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Call for Papers:

This session aims to promote research on the latest control strategies with fractional order theory in chemical process industries, communication, robotics, power systems and power electronics. In recent years, outstanding works on applied fractional calculus have been presented in the most critical process identification and control, exhibiting more realistic modelling and improved control strategies. The latest fractional calculus trends can offer novel, practical solutions in multidisciplinary areas. Researchers from academia and industry working or starting research in applied fractional calculus methods will find the session most beneficial. State-of-the-art reviews focusing on recent trends are also welcome. Both simulation results are acceptable if the authors show substantial improvement or advantages compared to the contemporary strategies.

Topics of the Session include but are not limited to

- Fractional theory in Process Control
- Fractional theory in Neural networks and Deep learning
- Fractional order control in Robotics
- Fractional behavior in Metaheuristic approaches
- Resilient control strategies amid cyber threats
- Advancement in sliding mode control
- Fractional Element in Power circuits

Accepted and presented papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements and indexed by EI Compendex and Scopus. Selected papers will be invited to SCI Journal Special Issues.