Call for Papers:

IEEE Open Journal of Control Systems (OJ-CSYS)

Special Section on Control Theory Fundamentals of Multi-Agent Systems

As technology develops to allow integration of mobility, computing, and communication on single platforms, we have entered a new era in which teams of agents, physical robots, or sets of control laws interact with each other to influence their states, motions or actions to cooperatively perform tasks in an array of civilian and military applications. The topics of this special section are control theory and experimental results addressing the emergence of desirable outcomes in multi-agent, robotic, or complex control systems, as well as fundamental limitations for achieving the emergence. Results based on nonlinear control, optimal control, game theory, and other areas of control theory and machine learning are also in the scope of the section.

Prospective authors are invited to submit original contributions addressing two or more agents with a clear relevance to multi-agent systems.

Related topics include, but are not limited to, the following:

- Distributed control under spatiotemporal constraints
- Coordination and motion planning for multi-agent systems
- Coordination and collaboration in heterogeneous multi-agent systems
- Cooperative manipulation
- Game theory approaches to multi-vehicle systems
- Resilient decision-making for autonomous multi-agent systems
- Machine learning approaches for multi-agent systems
- Control or machine learning approaches for control action synergies
- Distributed decision-making
- Optimization in multi-agent systems

Special Section Schedule:

- **Special Section Submission Window: 15 February 2025 – 1 May 2025**
- Notification of reviews and recommendations: 10 weeks after initial submission
- Final notification of regular papers: 20 weeks after initial submission
- Manuscript publication on IEEE Xplore: 24 weeks after initial submission
- Review process starts at time of manuscript submission

Submission Site: https://css.paperplaza.net/
Length: 10-15 pages, not including references. Justification of longer papers is required.

Open Journal of Control Systems (OJ-CSYS) covers significant theoretical and applied developments that impact the field of dynamic systems and control. The field integrates elements of sensing, communication, decision and actuation components as relevant for the analysis, design and operation of dynamic systems and control. The systems considered include: technological, physical, biological, economic, organizational and other entities, and combinations thereof.

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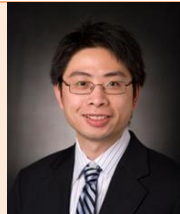Affiliation: **Indian Institute of Science, India**

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