

## LIST OF PUBLICATIONS

**Faculty: Dr Sudhir Raj**

**Department of Mechanical Engineering**

### JOURNAL PUBLICATIONS

Decentralized Adaptive Control of Nonlinear Interconnected Systems, **Sudhir Raj**, *Mechatronic Systems and Control*, 49, (2021)

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Decentralized Control for Stabilization of Coupled Pendulums using H infinity based Integral Sliding Mode Control, **Sudhir Raj**, *Mechatronic Systems and Control*, 48, (2020)

### CONFERENCE PROCEEDINGS

Decentralized Control for Stabilization of Coupled Pendulums using High gain observer based Integral Sliding Mode Control, **Sudhir Raj**, International Conference on Power Electronics, Control and Automation, (2019), Delhi.

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A Neurodynamic Approach to Stabilization of a 10 DOF Biped Mechanism using Reinforcement Learning, Aditya Kameswara Rao Nandula, **Sudhir Raj**, A. K. Deb, C. S. Kumar, IFToMM Asian Mechanism and Machine Science, (2018), IISC Bangalore

Reinforcement Learning Based Controller for Stabilization of Double Inverted Pendulum, **Sudhir Raj**, IEEE First International Conference on Power Electronics, Intelligent Control and Energy Systems, (2016), Delhi.

Decoupled Terminal Sliding Mode Control for Stabilization of Double Inverted Pendulum, **Sudhir Raj**, Conference on Nonlinear Systems and Dynamics, IISER, (2016), Kolkata.

Q Learning based Reinforcement Learning approach to bipedal walking control, **Sudhir Raj**, C. S. Kumar, Proceedings of the iNaCoMM, (2013), IIT Roorkee.

### BOOK CHAPTERS

Aditya Kameswara Rao Nandula, **Sudhir Raj**, AK Deb, C S Kumar, A Neurodynamic Approach to Stabilization of a 10 DOF Biped Mechanism using Reinforcement Learning, Mechanism and Machine Science, Pages 483-496, 2021, Springer, Singapore.

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