

Magnus Egerstedt

Stacey Nicholas Dean of Engineering at UC Irvine

Irvine, CA, US

Magnus Egerstedt is a leading research on control theory, complex networks and robotics.

Biography

Egerstedt's research pursuits center on control theory and robotics. His work has resulted in innovations in remote environmental monitoring and precision agriculture, and he has worked extensively on the control and coordination of complex networks, such as multirobot systems, mobile sensor networks and cyber-physical systems. He led the creation of the Robotarium, a remotely accessible swarm robotics lab used by thousands of researchers around the world. He also helped develop SlothBot, a hyper-energy-efficient environmental monitoring robot. Egerstedt is a fellow of the Institute of Electrical and Electronics Engineers and the International Federation of Automatic Control as well as a member of the Royal Swedish Academy of Engineering Sciences.

Areas of Expertise

Multi-system robots, Mobile Sensor Networks, Complex networks (e.g., optimization and control, resource sharing, dimension reduction), Control Theory, Robotics, Cyber-Physical Systems

Affiliations

IEEE (Control Systems and Robotics & Automation Societies) : Fellow, International Federation of Automatic Control (IFAC) : Fellow, IEEE Control Systems Society : Vice President for Member Activities

Event Appearances

?Forward Invariance in Robotics: From Coordinated Multi-Robot Systems to Safe Learning?
IEEE International Conference on Cybernetics and Intelligent Systems

?Long Duration Autonomy And Constraint-Based Coordination of Multi-Robot Systems?
International Symposium on Nonlinear Dynamics and Control

?Long Duration Autonomy And Constraint-Based Coordination of Multi-Robot Systems?
ASME Dynamic Systems and Control Conference

?Long Duration Autonomy And Constraint-Based Coordination of Multi-Robot Systems?
Swedish Automatic Control Meeting

?Coordinated Control of Multi-Robot Systems for Persistent Environmental Monitoring?
Séminaire Fédération Charles Hermite,

Education

Royal Institute of Technology
Ph.D. Applied Mathematics

Royal Institute of Technology
M.S. Engineering Physics

Stockholm University
B.A. Philosophy and Linguistics

Accomplishments

O. Hugo Schuck Best Paper Award
2019 American Control Conference

Distinguished Faculty Achievement Award
2018 Georgia Institute of Technology, School of Electrical and Computer Engineering

Creating the Next Award for Innovation and Impact in Robotics
2017 Georgia Tech Research Corporation

Distinguished Mercer Lecturer
2016 RPI, Rochester, NY

Best Multi-Robot Systems Paper Award
2017 IEEE International Conference on Robotics and Automation

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