Report to IEEE Systems Council

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The materials in this report are obtained from different pages of the IEEE Control Systems Society's official website.

Mission, Vision and Fields of Interest

The Control Systems Society is dedicated to the advancement of the theory and practice of systems and control. Founded in 1954, the IEEE CSS has been at the forefront of control systems theory and technology for over 65 years. Its focus is to promote scientific, technological, and educational advancements in the fields of automatic control, decision making, theory and applications, all over the world. Application areas include, and not limited to, aerospace systems, automotive systems, communication networks, cyber-physical systems, manufacturing, micro/nano systems, power grids, process control, robotics, smart communities, and systems and synthetic biology. The society's fields of interest include:

- Aerospace Controls
- Automotive Control
- Control Education
- Discrete Event Systems
- Distributed Parameter Systems
- Healthcare and Medical Systems
- Hybrid Systems
- Intelligent Control
- Manufacturing Automation and Robotic Control
- Networks and Communication Systems
- Nonlinear Systems and Control
- Power Generation
- Process Control
- Robust and Complex Systems
- Smart Cities
- Smart Grids
- Systems and Synthetic Biology
- Systems Identification and Adaptive Control
- Variable Structure and Sliding Mode Control

Many of these areas are geared towards studying complex system-of-systems. The specific emphasis is on developing new systems principles that are essential for dealing with engineering systems such as feedback.

Main Activities

Publications

The IEEE Control Systems Society offers the following six publications to its membership:

- IEEE Control Systems Magazine
- Transactions on Control of Network Systems
- Transactions on Automatic Control
- IEEE Control Systems Letters
- Transactions on Control Systems Technology
- IEEE Control Systems Society - E-Letter

Conferences

The IEEE Control Systems Society organizes two annual conferences every year, as follows:

- IEEE Conference on Decision and Control (CDC) –in December every year
- IEEE Conference on Control Technology and Applications (CCTA) – usually in August every year

Other Activities

- Technical Activities

  - CSS Technical Activities
  - TC Chair Guidelines
  - History of CSS TAB

- Member Activities

  - CSS Member Activities
  - Distinguished Lecturer Program
  - Women in Control
  - CSS Chapter Activities
  - LASS Program
  - Outreach Fund

- Technical Committees

  - Technical Committees

- Student Activities

  - Student Travel Support
  - Student Branch Chapters

- Financial Activities

  - CSS Financial Activities
  - Travel Support
  - Conference Budgets