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Symposium on Control, Communication and Embedded System for Robotics

9th-10th June, 2020 National Institute of Technology, Silchar, Assam, India

Organizing Chair

Organised By

Electrical Engineering Department National Institute of Technology Silchar, India

Dr. Rajeeb Dey, NIT Silchar, India Dr. Nabanita Adhikary, NIT Silchar, India Dr. Umar Farooq, Dalhousie University, Canada

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National Institute of Technology, Silchar

ABOUT THE SYMPOSIUM

Scope and Objectives:

The primary focus for the SOCCER 2020 is the control, wireless communication and development of embedded systems for robotic applications. Robot control technology is widely used for space, surgery, rehabilitation, micro machine, entertainment, underwater, civil engineering, professional and domestic services, security etc. Consequently, control will continue to play an increasingly important role in the areas of robotics including robot-robot and human-robot cooperation in various dynamic scenarios. Subsequently, due to changing communication infrastructure and technologies, it is highly desirable these days to propagate control commands through wireless communication channels/medium. Thus, inclusion of wireless communication for control of robotic systems possess serious challenges to the performance of the control system, thereby the development and testing control algorithms for robotic systems/applications under such communication environment needs cutting edge technologies. Furthermore, for real-time implementation of the control through present day communication networks requires realizable and scalable embedded design. Contributions on basic research of control over networks as well as on relevant robotics applications are included.

This Symposium provides an opportunity to present and discuss research and development work pertaining to intelligent control, deployment of intelligent and nonlinear control and embedded control for robotic system emerging for non-standard operating environment.

Publications:

The papers will be published as book chapters of a Springer book series (approval pending). The tentative outline of the book is as follows:

Section 1: Fundamental Control theories for robotic applications.

Section 2: Communication and Control for robotic applications.

Section 3: Embedded system design for robotic applications.

Section 4: Intelligent Control for robotic applications.

Section 5: Multi-agent system and cooperative control

Committees:

Patron:

• Professor Sivaji Bandyopadhay, Director, NIT Silchar, Assam, India.

Program Chairs:

- Professor Jason Gu, Electrical and Computer Engineering , Dalhousie University, Canada.
- Professor Nalin B Dev Choudhury, HoD, Electrical Engineering, NIT Silchar.

Technical Chairs:

- Professor Binoy Krishna Roy, Electrical Engineering, NIT Silchar, Assam, India
- Professor Bijnan Badyopadhyay, IIT Bombay

Registration:

Registration Fee:

| | | Early Bird Registration | | On Spot Registration | |
|---------------------------------|----------|-------------------------|--------------|----------------------|--------------|
| Indian participants have to pay | | Indian | Foreign | Indian | Foreign |
| the registration fee via online | | Participants | Participants | participants | Participants |
| transfer to the account of the | | (Rs.) | (\$) | (Rs.) | (\$) |
| Director, NITSilchar (A/C No.: | Industry | 12,000.00 | 200.00 | 14,000.00 | 220.00 |
| 10521277057, Branch: NIT | Faculty | 10,000.00 | 150.00 | 12,000.00 | 180.00 |
| Silchar, IFSC: SBIN0007061). | Student | 5,000.00 | 70.00 | 6,000.00 | 80.00 |

Paper submission will be conducted through Easy Chair. For more details please visit http://soccer2020.nits.ac.in

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+91-9864428032 (Dr. Nabanita Adhikary) Last date of paper submission: 7th April, 2020

Notification of acceptance: 30th May, 2020

About NIT Silchar

National Institute of Technology (NIT) Silchar, an Institute of National Importance under the NIT Act was established in 1967 as Regional Engineering College (REC) Silchar in Assam. In the year 2002, it was upgraded to the status of an NIT from REC. NIT Silchar is situated on the banks of river Barak and on a sprawling campus spread over 600 acres of land on the outskirts of Silchar. NIT Silchar is a fully residential Institution. At present it offers six undergraduate courses in Civil, Electrical, Mechanical, Electronics & Communication, Computer Science & Engineering and Electronics & Instrumentation Engineering. All the departments of the Institute also offer M. Tech. and Ph. D. programmes.

^{*} Detailed committee can be found in http://soccer2020.nits.ac.in