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SOCCER 2020

**Organizing Chair**

**Dr. Rajeeb Dey, NIT Silchar, India**

**Dr. Nabanita Adhikary, NIT Silchar, India**

**Dr. Umar Farooq, Dalhousie University, Canada**

Last date of paper submission: 7th April, 2020

Notification of acceptance: 30th May, 2020

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| **Registration:**  Indian participants have to pay the registration fee via online transfer to the account of the Director, NITSilchar (A/C No.: 10521277057, Branch: NIT Silchar, IFSC: SBIN0007061). | **Registration Fee:**   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Early Registration | | Late Registration | | |  | Indian Participants | Foreign Participants | Indian participants | Foreign Participants | | Industry | Rs.12,000.00 | $200.00 | Rs. 14,000.00 | $220.00 | | Faculty | Rs.10,000.00 | $150.00 | Rs. 8000.00 | $180.00 | | Student | Rs.5000.00 | $70.00 | Rs. 6000.00 | $80.00 | |  |  |  |  |  | |

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

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

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* 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.

\* Detailed committee can be found in http://soccer2020.nits.ac.in

**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

**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.

**Topics of Interest:**

Topics of interests include, but are not limited to the followings

* Intelligent control over wireless network: mobile robots, vehicles and UAVs Semi-, highly- and full-automated driving,
* Formation flying and control for defense applications
* Control of space vehicles
* Control problems of Haptic devices
* Control problems of Tele-manipulation
* Control problems of Networked robots
* Robot control (adaptive, robust, learning)
* Force and compliance control
* Multi cooperative robot control
* Sensory based robot control
* Compact and efficient power for robots
* Industrial robot control applications for manufacturing
* Application of time-delay for robotic systems
* Embedded control design for network control robots
* Embedded control design of industrial robotic systems
* Multi-agent systems and cooperative control
* Medical robotics.

**Technical Committee:**

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Symposium on Control, Communication and Embedded System for Robotics

**9th-10th June, 2020**

**National Institute of Technology, Silchar, Assam, India**

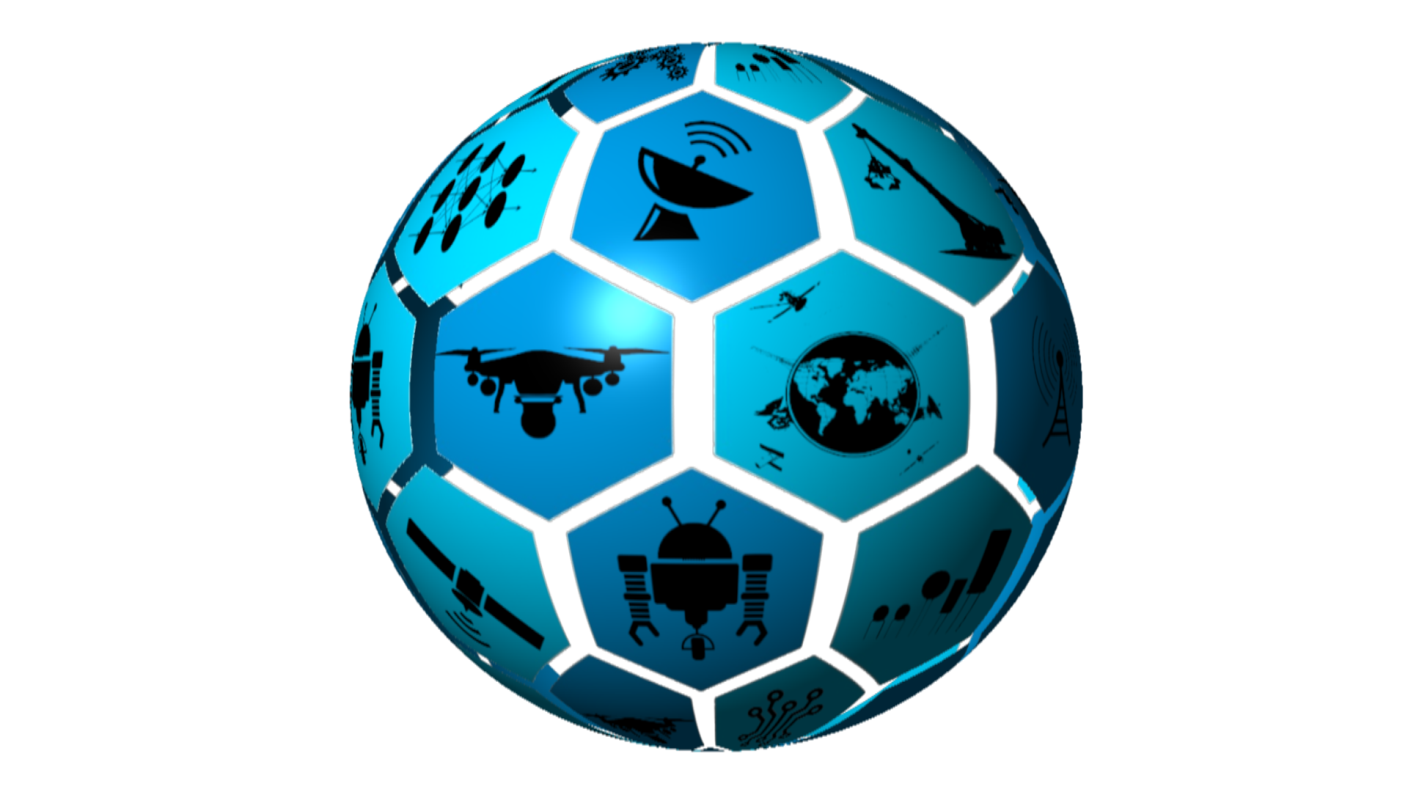
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**National Institute of Technology Silchar, India**

**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.



**ABOUT THE SYMPOSIUM**

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