Robotics Systems: Design, Analysis and Fabrication
A Two-Week Winter-Term Course
Global Initiative of Academic Networks
Indian Institute of Technology Ropar, December 20 – 30, 2016

Overview
The Robotics course includes mechanical, electronics and computing aspects for designing and building robot systems. Different robot applications will be considered for explanation of kinematics and dynamics and also for the controller design, robot mobility, robot-safety and performance benchmarking. Design and fabrication of some robotic systems via experimental assignments are included in the practical hands-on sessions. The participants will be encouraged to work in interdisciplinary groups for programming and project based exercises.

Modules
Module 1: Kinematics, Dynamics and Motion Planning:
Manipulator and Mobile robots.
A basic module for Robotics enthusiasts (students/researchers/academicians) from different streams – Mechanical, Electrical, Electronics Engineering and Computer Sciences. A common practice at international Robotic courses.
Module 2: Robot Design Measures, Safety, Benchmarking and assessment.
To reinforce international emerging safety requirements in Robotic design and utilization in different application, through training of the measures used in practice.

You Can Attend If...
You are an engineer/researcher from manufacturing, service or government organization including R&D laboratories,
a faculty member from reputed academic/technical Institution,
a student at any level (BTech/MSc/MTech/PhD).

Registration Fees

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<th>Industry/Research Organizations</th>
<th>Academic Institutions</th>
<th>Students</th>
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<td>Any one modules</td>
<td>Rs. 6500/-</td>
<td>Rs. 3000/-</td>
<td>Rs. 800</td>
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<tr>
<td>Both modules</td>
<td>Rs. 10000/-</td>
<td>Rs. 5000/-</td>
<td>Rs. 1500</td>
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Foreign Participants: $500 for both modules
The above fees includes all instructional materials, computer usage for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility.
The participants will be provided with accommodation on payment basis.

Mode of Registration
STEP 1: One-time web-registration at GIAN portal (http://www.gian.iitkgp.ac.in/GREGN/index) through a non-refundable payment of Rs. 500/- (one-time). [A copy of enrolment form to be sent to course coordinator]
STEP 2: Course Registration
The shortlisted candidates will be informed by email. They need to make full payment of the course registration fee.
• either by NEFT (Account holder name: The Registrar, IIT Ropar; Account no: 30836125653; IFSC Code: SBIN0013181; Bank: SBI; Branch Name: IIT Ropar)
• or by sending a demand draft in favour of “Registrar, IIT Ropar” payable at Rupnagar-140001, Punjab before the last date of registration. Email the copy of demand draft and registration form to the course coordinator.

For any query, please email at: ekta@iitrpr.ac.in

Contact Hours
Lectures per day: 4 hours
Practice Session per day: 1:15 hours
Total contact hours: 60 (for two modules)

Course Coordinator: Dr Ekta Singla, Assistant Professor, Mechanical Engineering Department, IIT Ropar, Roopnagar – 140001 (PUNJAB) INDIA, www.iitrpr.ac.in, Phone: +91 1881 242160
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