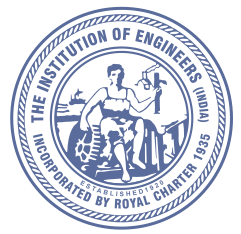




NATIONAL DESIGN AND RESEARCH FORUM
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NDRF Training Program at Bharat Electronics Ltd on Advanced Robodynamics

7th to 10th Oct 2020

**Time:
9:00 am to 5:00 pm**

4 Day Program

Day 1

1. ISRO's Lander and Rover Autonomous Systems-Challenges
2. Introduction to Robotics, Concepts and Fundamentals of Robotics
3. Direct and inverse kinematics, Velocity and static analysis, Dynamics, Trajectory planning and control
4. Introduction to wheeled mobile robots (WMR), Slip and its modeling, Dynamics, motion planning and control, Introduction to mobile robotics, Advanced features in mobile robotics
5. Automated vs Autonomous Systems- Fundamentals, Multi Agent Robotics Framework, Intelligent & Autonomous Weapon Systems

Day 2

1. Concept of Remotely Operated Vehicles (ROV) and its Applications
2. Adaptive Control Theory
3. Introduction to Autonomous systems, Motion planning & Co- ordination of autonomous vehicles, Guidance strategies for Autonomous Vehicles (Session-I)
4. Introduction to Autonomous systems, Motion planning & Co- ordination of autonomous vehicles, Guidance strategies for Autonomous Vehicles (Session-II)

Day 3

1. Collaborative Robots
2. Introduction, Concepts and Fundamentals of AI (Session I)
3. Introduction, Concepts and Fundamentals of AI (Session II)
4. Bio-Bots - Insect and Rat Cyborg for Search & Rescue

Day 4

1. Exoskeleton: Concepts, Challenges & Opportunities
2. Design & Development Approaches for Augmentative Exoskeleton
3. Test
4. Feedback & Valedictory Session-Intelligent Autonomous Systems

Speakers from

DRDO IISc, Bengaluru IIT Madras IIITDM, Kancheepuram

The University of Texas, Rio Grande Valley, USA PSG Tech

Manipal Institute of Technology VIT, Vellore

