**Technical Programme**

**Day 1 (July 02, 2015)**

8:30 – 9:30 :  Registration

9:30 - 10:30 :  Inauguration Ceremony

10:30 – 11:30 :  Keynote Lecture 1 by **Prof Steven LaValle**, UIUC

"Robotics Meets Virtual Reality"

11:30 – 12:00 :  TEA

**HALL A**

12:00 – 13:20 :  Technical Session 1A (4 papers)

- Kinematics, dynamics, control, and simulation of robots and autonomous intelligent systems

  1. 12:00 - 12:20 :  Robot Manipulation through Inverse Kinematics (ID:79)
    - Abdullah Hayat* (IIT Delhi), Ratan Sadanand (Indian Institute of Technology Delhi), Subir Kumar Saha (IIT Delhi)
  2. 12:20 - 12:40 :  A Robust Task Space Position Tracking Control of an Underwater Vehicle Manipulator System (ID:5)
    - Santhakumar Mohan* (Indian Institute of Technology), Jinwhan Kim (KAIST, ROK), Yogesh Singh (IIT Indore)
  3. 12:40 - 13:00 :  Inverse Kinematics of Redundant Serial Manipulators using Interval Method in handling uncertainties (ID:3)
    - VIRENDRA KUMAR* (CSIR-CMERI), Soumen Sen (CSIR-CMERI), Sankar Shome (CSIR-CMERI), Shibendu Roy (NIT, Durgapur)
  4. 13:00 - 13:20 :  Spatial Remote Center Analysis of Parallel Robots (ID:11)
    - Dwarakanath T A* (BARC), Gaurav Bhutani (BARC), Anubhav. (IIT Kharagpur), Aditya Agrawal (IIT Kharagpur)

**HALL B**

12:00 – 13:20 :  Technical Session 1B (4 papers)

- Vision and other non – contact sensory systems (4 papers)

  1. 12:00 - 12:20 :  Real-time Flow-rate Control System for Cell Analysis (ID:89)
    - Tadayoshi Aoyama* (), Zoysa Amalka () , Qingyi Gu () , Takeshi Takaki () , Idaku Ishii ()
  2. 12:20 - 12:40 :  Online Vision-Based Measurement of Stacks of Nuclear Fuel Pellets in a Tray (ID:75)
    - Sanjeev Sharma* (Bhabha Atomic Research Centre), Abhishek Jaju (Bhabha Atomic Research Centre), Namita Singh (Bhabha Atomic Research Centre), Prabir Pal (BARC)
  3. 12:40 - 13:00 :  Automated Monocular Vision based System for picking textureless objects (ID:114)
    - Tanya Raghuvanshi* (IIT Delhi), Shraddha Chaudhary (IIT Delhi), Varnica Jain (), Santanu Chaudhury (IIT Delhi), Sumeet Agarwal (IIT Delhi)
13:30 – 14:30          LUNCH

**HALL A**

14:30 – 15:50          Technical Session 2A (4 papers)

- Kinematics, dynamics, control, and simulation of robots and autonomous intelligent systems

1. **14:30 - 14:50**: Robust Trajectory Tracking Controller for 5 Degree of Freedom Robotic Manipulator (ID:38)
   - Anjana K* (NIT Calicut), Sudheer A P (NIT Calicut), Mija S J (NIT Calicut)

2. **14:50 - 15:10**: Reconfiguration of Joint Locked Hyper-Redundant Space Manipulator (ID:122)
   - Vijay Dalla* (Indian Institute of Technology), Pathak Pushparaj (IIT Roorkee)

   - Nabanita Adhikary* (IIT Guwahati), Chitralekha Mahanta (IIT Guwahati)

4. **15:30 -15:50**: Comparative Kinematic and Dynamic Performance Analysis of Planar Parallel Manipulators (ID:8)
   - Yogesh Singh* (IIT Indore), Santhakumar Mohan (Indian Institute of Technology)

**HALL B**

14:30 – 15:50          Technical Session 2B (4 papers)

- Multi agent systems, Swarms (3 papers)

   - Tushar Semwal (IIT Guwahati), Manoj Bode (), Vivek Singh (), Shashi Shekhar Jha (), Shivashankar Nair* ()

   - Miriam Cathy Joy* (SSN College of Engineering), Jaya Parvathy R (SSN College of engineering)

3. **15:10 – 15:30**: Ant Colony Based Path Planning for Swarm Robots (ID:110)
   - Aakrati Agrawal* (NIT Calicut), Sudheer A P (NIT Calicut), Ashok S (NIT Calicut)

- Other Subjects (1 papers)

1. **15:30 – 15:50**: Improving Grasp Quality for 3D Objects Using Particle Swarm Optimization (PSO) and Mesh Parameterization (ID:73)
   - Venkataramani Rakesh* (IGCAR), Utkarsh Sharma (IIT Madras), B. Purna Chandra Rao (), S Venugopal (), Asokan Thondiyath (I I T Madras)

15:50 – 16:30        TEA
**HALL A**

16:30 – 17:50 Technical Session 3A (4 papers)

- Kinematics, dynamics, control, and simulation of robots and autonomous intelligent systems.

1. **16:30 - 16:50**: Tele-operation of Unmanned Tracked Vehicles: Modeling and Simulation of Planar Motion Dynamics (ID:18)
   - Senthilkumar Dhakshnamoorthy* (I I T Madras), Babu Natesan (DRDO), Asokan Thondiyath (I I T Madras), Shankar ram S (I I T Madras)

2. **16:50 - 17:10**: Caudal fin load characteristics with different motion patterns toward developing biorobotic fish-fin actuator (ID:30)
   - Srinivasa Reddy* (CSIR-CMERI), Soumen Sen (CSIR-CMERI), Diwakar Kumar (csir-cmeri), Sankar Shome (CSIR-CMERI)

3. **17:10 - 17:30**: ANALYTICAL APPROACH FOR OBSTACLE NEGOTIATING CAPABILITY OF STAIR CLIMBER (ID:70)
   - Sandeep Jain* (CMERI, Durgapur), Suman Char (CMERI, Durgapur), SOMAJYOTI MAJUMDER (CSIR - CMERI, DURGAPUR), Dinesh Munda (CMERI), Dip Roy (CMERI, Durgapur)

4. **17:30 - 17:50**: Design, Kinematic and Dynamic studies of a Reconfigurable parallel manipulator (ID:74)
   - Venkata Varalakshmi Kothuru* (NIT Rourkela), Dr.J. SRINIVAS (NIT ROURKELA)

**HALL B**

16:30 – 17:50 Technical Session 3B (4 papers)

- Robotics related hardware and software (5 papers)

1. **16:30 - 16:50**: FPGA based Hierarchical Architecture for Parallelizing RRT (ID:19)
   - Gurshaant Malik* (IIIT, Hyderabad), Krishna Gupta (IIIT-HYD), Madhava Krishna (IIIT Hyderabad), Shubhajit Roy Chowdhury (IIIT Hyderabad)

2. **16:50 - 17:10**: Rotary-Wing Aerial Robot Configuration for In-Flight Switching for Hovering (ID:48)
   - Sarbari Datta* (CSIR-CMERI), Umesh Patkar (CMERI, Durgapur), SOMAJYOTI MAJUMDER (CSIR - CMERI, DURGAPUR), Manik Majumder (NIT, Durgapur)

3. **17:10 - 17:30**: Real-time Heuristic Search Based Minimum Energy Path Planning of Wheeled Mobile Robot (ID:67)
   - PARAMITA MANDAL* (JADAVPUR UNIVERSITY), VINAY SINGH (JADAVPUR UNIVERSITY), rANJIT BARAI (JADAVPUR UNIVERSITY)

4. **17:30 -17:50**: Architecture of Autonomous Vehicle Simulation and Control Framework (ID:119)
   - Neerja Gupta (The Hitech Robotic Systemz), Ritukar Vijay* (The Hitech Robotic Systemz), Pradyp KVN (The Hitech Robotic Systemz), Jayant Bansal (The Hitech Robotic Systemz), Anuj Kapuria (The Hitech Robotic Systemz)

**19:30 to 21:30 CONFERENCE DINNER AND CULTURAL SHOW**

*(BOGMALLO RESORT)*
DAY 2 (July 03, 2015)

- 9:00 – 10:00: Keynote Lecture 2 by Prof Jae-Bok Song, Korea University
  "Recent Trends in Collaborative Robot Arms"

HALL A

10:00 – 11:20 Technical Session 4A (4 papers)

- Kinematics, dynamics, control, and simulation of robots and autonomous intelligent systems
  1. 10:00 – 10:20 Optimal Whole Body Motion Planning of Humanoid with Articulated Spine for Object Manipulation in Double Support Phase (ID:46)
     • Hari Teja* (IIIT Hyderabad), Francis James (IIIT Hyderabad), Suril Shah (IIIT Hyderabad)
  2. 10:20 – 10:40 Real-Time Dynamic Singularity Avoidance while Visual Servoing of a Dual-Arm Space Robot (ID:47)
     • Mithun P* (IIIT Hyderabad), Anurag V. V (IIIT Hyderabad), Mohak Bhardwaj (IIIT Varanasi), Suril Shah (IIIT Hyderabad)
  3. 10:40 – 11:00 Redundancy Resolution and Control of a Nonholonomic Mobile Manipulator using Kinect mounted on UAV (ID:34)
     • Arjun Bhasin* (IIT-Kanpur), Ashish Dutta (IIT Kanpur)
  4. 11:00 – 11:20 A New Dynamic Control Model with stability analysis for Omnidirectional Mobile Robot (ID:59)
     • Gossaye Mekonnen* (IIT Roorkee), Sanjeev Kumar (IIT Roorkee), Pushparaj Pathak (IIT Roorkee)

HALL B

10:00 – 11:20 Technical Session 4B (4 papers)

- Medical and Assistive Robotics (1 paper)
  1. 10:00 – 10:20 Jaipur Foot Gait Control through a Predictive Controller (ID:100)
     • Nayan M Kakoty* (Tezpur University), Jitu Sarma (), Aakash Sinha (), Dewarkshi Konwar (), Shashi Bhushan Kumar (), Sushil Kumar Mishra (), Shyamanta Hazarika (Tezpur University)
  2. 10:20 – 10:40 Modeling, Simulation and Control Architecture for Lower Limb Active Exoskeleton (ID:40)
     • OISHEE MAZUMDER* (IIEST,SHIBPUR), Ananda sankar Kundu (IIEST,shibpur), Ritwik Chattaraj (IIEST,shibpur), Subhasis Bhaumik (IIEST,shibpur)

- Tactile and other contact sensory technology (2 paper)
  1. 10:40 – 11:00 Robotic Polishing of Pilger-Die (ID:31)
     • Kamal Sharma* (BARC), Varsha Shirwalkar (BARC), Amare Das (BARC), Prabir Pal (BARC)
  2. 11:00 – 11:20 Flex sensor based wearable gloves for Robotic gripper control (ID:127)
     • Kathika Roy* (R&DE(E)), Durga Prasad (DRDO), Annapurna Agrawal (DRDO), Bani Hazra (DRDO,Pune)

11:20 – 12:00 TEA


**HALL – A**

12:00 – 13:20   Technical Session 5A (4 papers)

- Vision and other non-contact sensory systems (4 papers)
  1. **12:00 – 12:20 Trajectory Planning for Monocular SLAM based Exploration System** (ID:43)
     - Sarthak Upadhyay* (IIIT), Ayush Dewan (Universiy of Freiburg), Arun Singh (Ben Gurion University), Madhava Krishna (IIIT Hyderabad)
  2. **12:20 – 12:40 Pose Estimation of a tilted pellet using single view from Robot mounted camera** (ID:93)
     - Shraddha Chaudhary* (IIT Delhi), Ratan Sadanand (Indian Institute of Technology Delhi), sumantra Roy (IIT Delhi), Santanu Chaudhury (IIT Delhi)
  3. **12:40 – 13:00 Effort Cube: a real-time muscle effort visualization system** (ID:64)
     - Yusuke Kishishita (Hiroshima University), Toshio Tsuji (Hiroshima University), Yuichi Kurita* (Hiroshima University)
  4. **13:00 – 13:20 A Fast 3D Shape Scanner Using Two HFR Camera-projector Systems** (ID:45)
     - Jun Chen* (Hiroshima University), Qingyi Gu (), Tadayoshi Aoyama (), Takeshi Takaki (), Idaku Ishii ()

**HALL – B**

12:00 – 13:20   Technical Session 5B (4 papers)

- Design of robotic systems (4 papers)
  1. **12:00 – 12:20 Design and Development of an Earth Based Experimental Setup for Testing Algorithms on Space Robots** (ID:65)
     - Francis James* (IIIT Hyderabad), Shubham Vyas (SRM University), Puneeth Bandikatla (BITS Pilani), Mithun P (IIIT Hyderabad), Suril Shah (IIIT Hyderabad)
  2. **12:20 – 12:40 Design and Analysis of a Tree Climbing Robot** (ID:29)
     - Bijo Sebastian* (CMERI, Durgapur), Dip Roy (CMERI, Durgapur), SOMAJYOTI MAJUMDER (CSIR - CMERI, DURGAPUR)
     - Sameer Gupta (IIT Ropar), Ekta Singla* (IIT Ropar)
  4. **13:00 – 13:20 An Improved Compliant Joint Design of a Modular Robot for Descending Big Obstacles** (ID:123)
     - Phani Teja S* (IIIT Hyderabad), Sri Harsha Turlapati (IIIT Hyderabad), Avinash Siravuru (), Suril Shah (IIIT Hyderabad), Madhava Krishna (IIIT Hyderabad)

13:30 – 14:30    LUNCH

**HALL – A**

14:30 – 15:50   Technical Session 6A (4 papers)

- Machine learning and artificial intelligence for robotics (3 papers)
  1. **14:30 – 14:50 Modeling occupancy grids using EDHMM for dynamic environments** (ID:109)
     - Abhinav Dadhich* (NAIST), Nishanth Koganti (Nara Institute of Science and Technology), Tomohiro Shibata (Kyushu Institute of Technology)
2. 14:50 – 15:10 Monte Carlo-Based Pose Tracking on Maps Represented with Line Segments (ID:111)
   - Surojit Saha* (VECC), Biswajit Sarkar (VECC), Prabir Pal (BARC)
3. 15:10 – 15:30 Real-Time optical Image stabilization using High Frame Rate Video Sequence at 500 fps (ID:120)
   - Sushil Raut* (Hiroshima University)

- Robotics related hardware and software (1 paper)
  1. 15:30 – 15:50 Virtual Robots Module: An effective visualization tool for Robotics Toolbox (ID:42)
     - Ratan Sadanand* (Indian Institute of Technology Delhi), Rajeevlochana G. Chittawadigi (Amrita School of Engineering, Bengaluru), Ravi Joshi (Indian Institute of Technology Delhi), Subir Kumar Saha (IIT Delhi)

**HALL – B**

14:30 – 15:50 Technical Session 6B (4 papers)

- Kinematics, dynamics, control, and simulation of robots and autonomous intelligent systems
  1. 14:30 - 14:50 Sliding Mode and Adaptive Sliding Mode Control Approaches of Two Link Flexible Manipulator (ID:106)
     - KSHETRIMAYUM LOCHAN* (NIT SILCHAR), Surajit Suklabaidya (NIT SILCHAR), Binoy Roy (NIT SILCHAR)
  2. 14:50 - 15:10 Modeling and Sliding Mode Control of Flexible Link Flexible Joint Robot Manipulator (ID:108)
     - Surajit Suklabaidya* (NIT SILCHAR), KSHETRIMAYUM LOCHAN (NIT SILCHAR), Binoy Roy (NIT SILCHAR)
  3. 15:10 - 15:30 Implementation of Gaits for Achieving Omnidirectional Walking in a Quadruped Robot (ID:51)
     - T komal Kumar (IIIT Hyderabad), Rishav Kumar (IIIT Hyderabad), Samyukta Mogili (IIIT Hyderabad), Divyanshu Goel (IIIT Hyderabad), Nahas Pareekutty (IIIT Hyderabad), Suril Shah* (IIIT Hyderabad), Madhava Krishna (IIIT Hyderabad)
  4. 15:30 - 15:50 Finite-time robust control of robot manipulator: A SDDRE based approach (ID:99)
     - Niladri Tripathy* (IIT DELHI), I Kar (IIT Delhi), Kolin Paul (IIT Delhi)

13:50 – 16:30 TEA

**HALL – A**

16:30 – 18:00 Special session (invited talks from R&D/industry)

19:00 onwards Robotics Society of India: General Body Meeting
Day 3 (July 04, 2015)

- 9:00 – 10:00: Keynote Lecture 3 by Prof. Dr. Roland Siegwart, ETH Zurich

"Robots that Roll, Run, Swim or Fly”

Hall – A

10:00 – 11:20 Technical Session 7A (4 papers)

- Medical and Assistive Robotics (3 papers)
  1. 10:00 – 10:20 Static Balancing and Inertia Compensation of a Master Manipulator for Tele-operated Surgical Robot Application (ID:23)
     - Karthik C* (IIT Madras), sakthivel sivaraman (NIT surathkal), Asokan Thondiyath (I I T Madras)
  2. 10:20 – 10:40 Development of virtual reality based robotic surgical trainer for Patient-specific deformable anatomy (ID:28)
     - Niveditha Kalavakonda* (Indian Institute of Technology), sourav Chandra (Indian Institute of Technology), Asokan Thondiyath (Indian Institute of Technology)
  3. 10:40 – 11:00 Development of Series Elastic Actuator based Myoelectric Knee Exoskeleton for Trajectory generation and Load Augmentation (ID:39)
     - OISHEE MAZUMDER* (IIEST,SHIBPUR), Ananda sankar Kundu (IIEST,shibpur), Ritwik Chattaraj (IIEST,shibpur), Prasanna K Lenka (NIOH), Subhasis Bhaumik (IIEST,shibpur), Karan Gupta ()

- Tactile and other contact sensory technology (1 paper)
  1. 11:00 – 11:20 IPMC Based Data Glove for Finger Motion Capturing (ID:90)
     - Srijan Bhattacharya* (RCC Institute of Information T), Siladitya Khan (RCC Institute of Information Technology), Tanmoy Sil (RCC Institute of Information Technology), Bikash Bepari (Haldia Institute of Technology), Subhasis Bhaumik (IIEST,shibpur)

Hall – B

10:00 – 11:20 Technical Session 7B (4 papers)

- Other Subjects (4 papers)
  1. 10:00 – 10:20 ST-CTC: A Spanning Tree-based Competitive and Truly Complete Coverage Algorithm for Mobile Robots (ID:71)
     - K.R Guruprasad* (NITK, Surathkal), T.D Ranjitha (NITK, Surathkal)
  2. 10:20 – 10:40 Segmentation of Point Cloud from a 3D LIDAR using Range Difference between Neighbouring Beams (ID:96)
     - SATISH KUMAR REDDY* (BHABHA ATOMIC RESEARCH CENTRE), Prabir Pal (BARC)
  3. 10:40 – 11:00 TELE-OPERATION OF ROBOT HAND EXPLOITING HUMAN HAND SYNERGY (ID:55)
     - Ritwik Chattaraj* (IIEST,shibpur), Ananda sankar Kundu (IIEST,shibpur), OISHEE MAZUMDER (IIEST,SHIBPUR), Bikash Bepari (Haldia Institute of Technology), Subhasis Bhaumik (IIEST,shibpur)
  4. 11:00 – 11:20 OPTIMAL VELOCITY TRAJECTORY GENERATION FOR SPRAY PAINTING ROBOT IN OFFLINE MODE (ID:12)
     - Mayur Andulkar* (VNIT, Nagpur), Shital Chiddarwar (VNIT, Nagpur), Anshul Paigwar (VNIT, Nagpur)
11:20 - 12:00  TEA

**HALL – A**

12:00 – 13:20  Technical Session 8A  (4 papers)

- Design of robotic systems
  1. **12:00 – 12:20** Design and Development of a Mobile Robot for Environment Monitoring in Underground Coal Mines (ID:15)
     - DIP RAY* (CSIR - CMERI, DURGAPUR), SOMAJYOTI MAJUMDER (CSIR - CMERI, DURGAPUR), ATANU MAITY (CSIR - CMERI, DURGAPUR), BIPLOB ROY (CSIR - CMERI, DURGAPUR), SANKAR KARMAKAR (CSIR - CMERI, DURGAPUR)
  2. **12:20 – 12:40** Robotic Micro Assembly by Compliant Piezoelectric micro grippers in Multi Mobile Micro Manipulation System (ID:6)
     - Dr. Ravi Kant Jain* (CSIR-CMERI)
     - Swagatika Mohanty* (BITS Pilani), Srinavasa Prakash R. (BITS Pilani, hyderabad), Daseswarao Y. Venkata (BITS Pilani, hyderabad)
  4. **13:00 - 13:20** Platform for Biomimetic Swarms (ID:112)
     - aNUPAMA K (BITS Pilani K K Birla Goa Campus), Meetha Shenoy* (BITS Pilani Goa Campus), Ch. S. Sankhar Reddy (BITS Pilani K. K Birla Goa Cam)

**HALL – B**

12:00 – 13:20  Technical Session 8B  (4 papers)

- Robotics related hardware and software (2 papers)
  1. **12:00 – 12:20** Kinematic Analysis of MTAB Robots and its integration with RoboAnalyzer Software (ID:41)
     - Udhayakumar (MTAB Engineers Pvt. Ltd), Rajeevlochana G. Chittawadigi (Amrita School of Engineering, BeRatan Sadanand* (Indian Institute of Technology Delhi), S. Sairaman (MTAB Engineers Pvt. Ltd), P. H. Balaji Sah (MTAB Engineers Pvt. Ltd), G. ngaluru), Subir Kumar Saha (IIT Delhi)
  2. **12:20 – 12:40** Stereo vision guided telerobotics system for autonomous pick and place operations (ID:69)
     - Pritam Shete* (BARC), Abhishek Jaju (Bhabha Atomic Research Centre), Surojit Bose (Bhabha Atomic Research Centre), Prabir Pal (BARC)
- Bio-mimetic and Bio- inspired Robotics Systems(2 papers)
  1. **12:40 – 13:00** Parameter Optimization and Experimentation of the Undulating fin of a Knife Fish Robot (ID:17)
     - Ajith A M* (NIT Calicut), Sourabh Moitra (NIT Calicut), Sudheer A P (NIT Calicut)
  2. **13:00 – 13:20** Design, Fabrication and Analysis of a bio-inspired Tuna Fish Robot (ID:95)
     - Ajith A M* (NIT Calicut), Sachin K S (NIT Calicut), Sudheer A P (NIT Calicut)

13:30 – 14:30  LUNCH
**HALL- A**

14:30 – 15:30    Technical Session 9A ( 3 papers )

- Man – machine interface and integration
  1. 14:30 – 14:50  A Mobile Agents based Distributed Speech Recognition Engine for Controlling Multiple Robots (ID:44)
    - Mayank Gupta* (IIT Guwahati), Pulkit Verma (IIT Guwahati), Tuhin Bhattacharya (IIT Guwahati), Pradip Das (IIT Guwahati)
  2. 14:50 – 15:10  Immersive environment for robotic tele-operation (ID:87)
    - NISHANT BUGALIA* (IIT DELHI), Arunasish Sen (Xerox Research Centre, India), Prem Kalra (Indian Institute of Technology, Delhi), Subodh Kumar (Indian Institute of Technology, Delhi)
  3. 15:10 – 15:30  APPLICATION OF HUMAN ARM KINEMATICS FOR ROBOT PATH PROGRAMMING USING Imitation (ID:25)
    - Abhishek Jha* (V.N.I.T. Nagpur), Shital Chiddarwar (VNIT, Nagpur), Mayur Andulkar (VNIT, Nagpur)

**HALL- B**

14:30 – 15:30    Technical Session 9B ( 3 papers )

- Misc.
  1. 14:30 – 14:50  Removal of Jittering in KUKA KR5 while tele-operation with Exoskeleton (ID:77)
    - Bhivraj Suthar (IIT Delhi), Sachin Kansal* (IIT Delhi), Md. Zubair (IIT Delhi), Siddhartha Jaitly (IIT Delhi), Sudipto Mukherjee (Indian Institute of Technology, Delhi)
  2. 14:50 – 15:10  Electromyography based control of robotic arm using entropy and zero crossing rate (ID:125)
    - Arlene John* (NIT Calicut), Aravind Vijayan (NIT Calicut), Sudheer A P (NIT Calicut)
  3. 15:10 – 15:30  Design Principles of the locomotion mechanism of a wall climbing robot (ID:22)
    - Abhijit Das* (CMERI, Durgapur), SOMAJYOTI MAJUMDER (CSIR - CMERI, DURGAPUR), Dip Roy (CMERI, Durgapur), Umesh Patkar (CMERI, Durgapur), Sandeep Jain (CMERI, Durgapur), Suman Char (CMERI, Durgapur)

16:00 – 17:00    Valedictory Session
Doctoral Symposium  05 July 2015
(Presentation 20 mins, followed by discussion 20 mins)*

1. Kinematics for human like walk of a biped robot (9:00 - 9:40)

2. Rise time based characterization of sub-millimeter SMA helical actuator for
sensor less displacement control (9:40- 10:20)

3. Parameters based Modular Design and Optimal Assembly Planning of
Reconfigurable Serial Manipulators for Cluttered Environments (10:20 - 11:00)

4. Localization of Mobile Robots in Indoor Environments Using Laser Range Data
(11:00- 11:40)

5. Space Robots: Dynamics and Control (11:40- 12:20)

6. Pneumatically Actuated Oscillating mechanism for the knee and thigh joints of
Robotic exoskeleton for partially below hip paralyzed subjects (12:20-13:00)

7. An Experimental Investigation of Multi-Agent/Robotic Search Based On
Centroidal Voronoi Configuration (14:00 - 14:40)


10. Visual Servoing of Satellite Mounted Robotic Systems for Capture of
Tumbling Orbiting Object (16:00-16:40)

* NOTE : abstracts submitted for Doctoral Symposium will NOT be
included in the conference proceedings nor be published in ACM digital
library.