# IETE IERA-2016

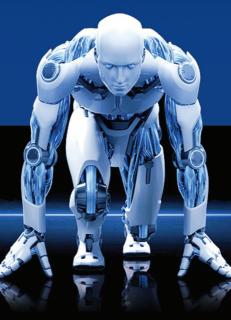
# INTERNATIONAL CONFERENCE ON ROBOTICS AND ALTOMATION



Organized by

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS Thiruvananthapuram Centre

19-21 February 2016



website: www.ieteicra2016.com

# **IETE ICRA - 2016**

We are pleased to welcome you to the 2016 International Conference on Robotics and Automation (IETE ICRA 2016), which will take place at MASCOT Hotel, Trivandrum, Kerala on 19, 20, 21 February 2016. The conference is organized by Institution of Electronics & Telecommunication Engineers (IETE) Trivandrum Centre. Research in Robotics and automation has gained momentum for the last 3 decades, resulting in cutting edge technologies and faster techniques reported day by day. IETE ICRA 2016 will be arena for researchers across the globe to present their views and formulations in this field. The conference creates a remarkable environment to indulge all the delegates in the frontier of Science and Technology in Robotics and Automation. In addition to invited paper sessions IETE ICRA 2016 conferences also include Plenary Session, Tutorials, and Exhibits by the Speakers. All submitted papers will be peer reviewed adapting same review procedures for presentation as well s poster sessions. All accepted papers will be published by IETE with ISBN numbers.

This conference programme is highlighted by Plenary Speaker Dr.Prahlad Vadakkeppat, Associate Professor, Electrical and Computer Engineering, National University of Singapore and Key Note Speaker Mr.Krishnamoorthy Baskaran, Senior Research Engineer, NTU, Singapore.

# MAKE IN INDIA PERSPECTIVE

India remains one of the top global destinations for foreign direct investment on account of its low labour cost, large domestic market, and availability of educated workforce. India should focus on physical infrastructure development and creating a digital network. These Combined achievements will make India a global hub for the manufacturing of goods ranging from cars to software, satellites to submarines, and paper to power. Here comes the importance of Robotics and Automation .Many new chapters are yet to unfold in India's growth story. There is no doubt that India has potential in manufacturing .It's up to India to capture the opportunity and manage India to a successful 21<sup>st</sup> century nation.

# INSTITUTION OF ELECTRONICS & TELECOMMUNICATION ENGINEERS (IETE)

Founded in 1953, the Institution of Electronics and Telecommunication Engineers (IETE) is a leading professional society devoted to the advancement of Science and Technology developed to the advancement in the fields of Electronics, Computer and IT. Government of India has recognized IETE as a Scientific and Industrial Research Organisation (SIRO) and also notified as an Educational Institution of National Eminence. The IETE serves its more than 70,000 members both individuals and industries/organizations through more than 65 centres, spread all over India and abroad.

#### **THE VISION**

The vision of IETE is to reach the unreached and empowering the youth through Technical Education and Skill Development. The mission includes advancement of Electronics, Telecommunications, Information Technology and other related disciplines; to contribute in Nations human Resource and Infrastructure Development through our engineers.

#### IETE THIRUVANANTHAPURAM CENTRE

The office is situated in the heart of Thiruvananthapuram city at Pottakuzhy near Vydyuthi Bhavan, Pattom and functioning in its own premises with a floor area of more than 7500 square feet in four floors.

# ABOUT THIRUVANANTHAPURAM CITY

It is also known as Trivandrum, the capital of the state of Kerala which is the most populous corporation in Kerala and fifth largest Urban Agglomeration in Kerala. Kovalam, an internationally renowned beach with three adjacent crescent beaches is just 16 km away from Thiruvananthapuram City. The city with a population of 957773 is the largest in Kerala. Thiruvananthapuram contributes 80% of the state's software exports and is major IT hub. Apart from being the political nerve centre of Kerala, it is also an academic hub and home to several educational institutions including the Universities of Kerala, and to many Science and Technology institutions.

#### DELEGATE REGISTRATION : Conference website: www.ieteicra2016.com

All delegates will have to register for the conference. The duly filled registration form along with the required registration fee should reach IETE Office on or before 15th January, 2016. The registration charges shown below include conference kit, working lunch and tea. Participants are required to make their own arrangements for accommodation and transport. If requested in advance, the centre will assist in booking for Hotels/Guest Houses.

#### **IMPORTANT DATES**

Presenting Author Registration : Last Date to Register for the Conference : Before 20<sup>th</sup> December, 2015 15<sup>th</sup> January, 2016.

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	IETEICRA-2016 SCHEDULE	
DATE	TIME	EVENT
19/02/2016	09.30 Hrs to 10.30 Hrs	Inaugural Session
19/02/2016	10.30 Hrs to 13.00 Hrs	Paper Presentation Session – I & Session – II
19/02/2016	14.00 Hrs to 17.00 Hrs	Paper Presentation Session-III & Session-IN
20/02/2016	09.30 Hrs to 17.30 Hrs	Tutorial Session
21/02/2016	09.30 Hrs to 16.30 Hrs	Plenary Session, Keynote and Invited Papers
21/02/2016	16.30 Hrs to 17.30 Hrs	Valedictory Function

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### **CALL FOR PAPERS**

Technical papers are invited from Academia, Industry and National and International Laboratories engaged in R&D. For paper submission visit conference website: www.ieteicra2016.com

AREA 1: Intelligent Control Systems and Optimization
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- § Genetic Algorithms
- § Fuzzy Control
- § Decision Support Systems
- § Machine Learning in Control Applications
- § Knowledge-based Systems Applications
- § Hybrid Learning Systems
- § Distributed Control Systems
- § Evolutionary Computation and Control
- § Optimization Algorithms
- § Soft Computing
- § Software Agents for Intelligent Control Systems
- § Neural Networks based Control Systems

- § Planning and Scheduling
  § Intelligent Fault Detection and Diagnosis
  § Engineering Applications
- AREA 2: Robotics and Automation
- § Image Processing
- § Vision, Recognition and Reconstruction
- § Robot Design, Development and Control
- § Control and Supervision Systems
- § Telerobotics and Teleoperation
- § Vehicle Control Applications
- § Industrial Networks and Automation
- § Human-Robots Interfaces
- § Network Robotics

- § Autonomous Agents
- § Intelligent Transportation
- Technologies and Systems
- § Space and Underwater Robots
- § Modelling, Simulation and Architecture
- § Human-Machine Interfaces
- § Collective and Social Robots
- § Humanoid Robots
- § Cognitive Approach for Robotics
- § Mobile Robots and Intelligent
- Autonomous Systems
- § Mechatronics Systems
- § Virtual Environment, Virtual and

- Augmented Reality
- § Perception and Awareness
- § Surveillance, Fault detection and Diagnosis
- § Engineering Applications

## AREA 3: Signal Processing, Sensors, Systems

- Modelling and Control
- $\$  Adaptive Signal Processing and Control
- § Environmental Monitoring and Control
- § Optimization Problems in Signal Processing
- § Signal Reconstruction
- § Computer and Microprocessor-based Control
- § Real-Time Systems Control
- § Information-based Models for Control
- § Nonlinear Signals and Systems
- § System Identification
- § Instrumentation Networks and Software

#### § Change Detection Problems

- § Time-frequency Analysis
- § Mechanical, Force and Tactile Sensors
- § Biological Inspired Sensors
- § Sensors Fusion
- § Intelligent Components for Control
- § System Modelling
- § Modelling, Analysis and Control of
- Discrete-event Systems
- § Modelling, Analysis and Control of Hybrid Dynamical Systems
- § Engineering Applications

# AREA 4: Industrial Engineering, Production and Management

§ Lean Enterprise

- § Supply Chain and Logistics Engineering

#### § Virtual Enterprises and Interoperability

- § Production Planning, Scheduling and Control
- § Computer-based Manufacturing Technologies
- § Facilities Planning and Management
- § Quality Control and Management
- § Energy Efficiency and Green Manufacturing
- § Precision Engineering
- § Industrial Automation and Robotics
- § Intelligent Design and Manufacturing
- § Resources and Knowledge Management in Industry
- § Manufacturing Systems Engineering
- § Systems Modelling and Simulation
- § Performance Evaluation and Optimization
- § Human Factors & Human-System Interface

Selected papers will be published in IETE journals

#### DONOR SPONSORSHIP

Excellent sponsorship opportunities are availed to enhance the visibility of the sponsors and showcase their goodwill. Sponsorship enables us to enhance the overall quality of the event.

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#### Gold Sponsor: Rs.1,00,000/- (USD 2,000/-)

2 Delegates and acknowledgement in proceedings as complements.

Delemente Cetemente	Fee		
Delegate Category	Rs.	US \$	
3 Day Conference Delegate Fee	4,000	200	
3 Day Conference Delegate Fee ( IETE Members)	3,000	150	
Paper Presentation	3.000	150	

The registration fee includes lunch, refreshments, delegate kit and transportation from Hotel to Venue and back for all days included. Mode of Payment

All payments are to be made by Demand Draft/Bankers Cheque drawn in favor of Secretary, IETE Trivandrum Centre. Payments can also be made by Bank Transfer with intimation to us. Bank Details are:

STATE BANK OF TRAVANCORE, KSEB Admn Branch, Pattom, Trivandrum, A/c No. 57065517125, IFSC Code. SBTR0000493.

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VENUE:

Mascot Hotel, Thiruvananthapuram

Payments and Correspondence are to be made The Hon' Secretary IETE, Trivandrum Centre, Pottakuzhy, Pattom, Trivandrum, Kerala- 695 004 email: ietetrivandrum@gmail.com, Phone: 0471 2554727

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