

## INTRODUCTION

Autonomous mobile robot is an important research direction of the robot field, and it is one of the most active research themes. An introduction to the design and implementation of autonomous mobile robot systems will be discussed in this course. This course will cover the fundamental elements of mobile robot systems from a computational standpoint. Issues such as software control architectures, sensor interpretation, map building and navigation will be covered, drawing from current research in the field. Participants will also design and build a small autonomous mobile robot and program it to perform simple tasks in real-world environments.

The main aim of this faculty development programme is for demonstrating advances in autonomous mobile robots in the following three major headings:

- Analyze and evaluate a wider range of sensor processing, architectures and control mechanisms for mobile robots.
- Various approaches to incorporating intelligence in mobile robot behavior.
- Critically evaluate and hence determine the most important paradigms currently proposed for mobile robot behavior, including the ability to reason.

### The major objectives of this programme are:

- To create awareness about the present status of mobile robots in manufacturing engineering.
- To get a thorough knowledge about recent research techniques and tools for doing research in the field of mobile robots.
- To motivate the engineering staffs towards research and new techniques, etc.

### COURSE CONTENT:

- ❖ Recent Advances in Mobile Robots field
- ❖ Research scope in Mobile Robots field
- ❖ Tools and techniques for Robotics Research
- ❖ Design and Development of Autonomous Robots
- ❖ Multi-Objective optimization tools, etc.

## RESOURCE PERSONS

Resource persons are eminent professors from IITs, NITs and other reputed academic institutions and industries.

## ELIGIBILITY

Faculty members from all departments of Engineering and Polytechnic colleges / Engineers from industry are eligible to apply.

## REGISTRATION FEE

For faculty members from AICTE approved institutions, the registration fee is Rs. 500 /- which will be refunded on successful participation in the programme. For others, the registration fee is Rs. 5000 / - per person. The candidates are required to send the registration fee only on receipt of the intimation of the provisional selection.

## FINANCIAL ASSISTANCE

The participants from AICTE approved engineering institutions / colleges, who attend the course in full, will be paid III AC railway / bus fare by the shortest route (Tickets have to be produced). Also they will be provided with free accommodation and boarding facilities.

## IMPORTANT DATES:

**Last date for receipt of applications  
15.05.2018**

**Intimation of provisional selection  
(by E-mail)  
16.05.2018**

**Last date of receipt to confirm Participation  
with registration fee  
31.05.2018**

**E.G.S. PILLAY ENGINEERING COLLEGE  
Nagapattinam – 611 012.**

## APPLICATION FORM

**AICTE - ISTE Sponsored Six Days Faculty  
Development Programme on  
“EMERGING TRENDS IN AUTONOMOUS  
MOBILE ROBOTS”  
04.06.2018 – 09.06.2018**

Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Sex: M / F \_\_\_\_\_

Designation: \_\_\_\_\_

Institution: \_\_\_\_\_

Address for Correspondence: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ PIN: \_\_\_\_\_

Phone: (O) \_\_\_\_\_ (R) \_\_\_\_\_

Mobile: \_\_\_\_\_ Email: \_\_\_\_\_

Whether your institution is approved by AICTE? Yes/No

Educational Qualification: \_\_\_\_\_

Experience (Years): Teaching \_\_\_\_\_ Industry \_\_\_\_\_

Area of Specialization / Interest: \_\_\_\_\_

Accommodation Required: Yes/ No \_\_\_\_\_

Place:

Date:

Signature of the Applicant

## DECLARATION

The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations governing the course. If selected, I shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinator sufficiently in advance, in case I am unable to attend the course. On provisional selection, I wish to submit the registration fee on or before 31.05.2018.

Place:

Date: Signature of the applicant

## SPONSORSHIP CERTIFICATE

Certified that Dr./Mr./Ms. \_\_\_\_\_

\_\_\_\_\_ is an employee of our institute and is hereby sponsored for the FDP on **Emerging Trends in Autonomous Mobile Robots** at EGSPEC, Nagapattinam during the period of **04.06.2018 – 09.06.2018**. Our institute is approved by AICTE. He / She will be permitted to attend the course, if selected.

Place:

Signature of the Sponsoring

Date:

Authority (with Seal)

## HOW TO APPLY

Application in the prescribed format attached herewith duly recommended / sponsored by the Head of the Institution / Organization should reach the coordinator on or before 15.05.2018. The selected candidates will be intimated by E-mail on or before 16.05.2018. After which they have to send the registration fee of Rs.500/ by DD drawn in favour of **The Principal, EGSPEC, Nagai** payable at Nagapattinam on or before 31.05.2018.

*Address for the correspondence:*

**Dr. S. RAMABALAN,**  
**Principal,**  
**E.G.S. Pillay Engineering College,**  
**Nagapattinamm, Tamil Nadu – 611002.**  
E-mail: [principal@egspec.org](mailto:principal@egspec.org)  
Ph. No: 04365-251114, Mobile: 9894831458

## ABOUT THE INSTITUTION

E.G.S. Pillay Engineering College is one of the pioneering non-grant Engineering Colleges in the State. It was established by the E G S Pillay & Sons Educational & Charitable Trust, Nagapattinam in the year 1995 with the approval of the All India Council for Technical Education, New Delhi. It is affiliated to Anna University, Chennai. It is an ISO 9001-2015 certified Institution. The college offers 6 UG courses and 6 PG courses. Seven courses got permanently affiliation. Five of our departments are recognized as Ph.D research centers by Anna University. It is accredited by NAAC with A grade. Three programmes B.E (Mechanical Engg.), B.E (EEE) and B.E (CSE) are accredited by NBA. From 2017, this institution becomes an Autonomous Institution. University Grand Commission (UGC) recognized this college by giving the status 2(F) and 12(B). It is the only Autonomous Institution in this region comprising of 10 districts. Higher Education Review Magazine ranked this Institution for 7<sup>th</sup> Place in Tamil Nadu and 24<sup>th</sup> Place in India for excellent faculty strength in 2015. Also this college received “Best Engineering College of the Year 2016” from Higher Education Review Magazine. The college follows an Outcome based Education system. Vision of the Institute is to become a “Global centre of academic excellence”.

## ABOUT THE DEPARTMENT

The department of Mechanical Engineering was established in 1995. The department offers B.E (Mechanical Engg.) and M.E. (Manufacturing Engg.) programmes. B.E (Mechanical Engg.) is accredited by NBA. The department has highly qualified and experienced faculty members. The department has very good infrastructural facilities and laboratories. The teaching faculties are active in conducting research and publishing the papers in reputed Journals and Conferences. The department has already conducted eight international conferences (ICAET 2011, ICAET 2012, IEEE-ICAESM 2012, IEEE-ICRDPET2013, IEEE-ICAET 2014, ICIRET-2014, ICASEM-2015, ICASEM-2016) and three AICTE sponsored FDPs.



**AICTE-ISTE**

**Sponsored**

**Six Days Faculty Development Programme**

**on**

**EMERGING TRENDS IN  
AUTONOMOUS MOBILE  
ROBOTS**

**04.06.2018 – 09.06.2018**

**Coordinator**

**Dr. S. RAMABALAN**



**Organized by**

**Department of Mechanical Engineering  
E.G.S. Pillay Engineering College,  
(An Autonomous Institution affiliated to  
Anna University, Chennai &  
NBA and NAAC accredited Institution),  
Nagapattinam – 611 012.**

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