# The Robotics Society



Student Chapter Activity for Learning and Enriching (TRS-SCALE) Sponsored

Three Day National Level Workshop with ROS Framework on "SLAM Navigation & Autonomous Map

Building"

## 25-27 July 2024

Registration Form
(To be filled in block letter)
Name :
Department:
Gender : Male / Female
Designation:
Organization:
Address for Communication:

Mobile:....Email id:... TRS Membership Available: Yes/No If Yes, Membership Number:... Accommodation Required: Yes/No Registration Details: UPI Transaction ID:.... Date of Transaction:... Amount: ....

Signature

Date:

ORGANIZING COMMITTEE

**Chief Patron** 

Shri. D.Lakshminarayanaswamy, Managing Trustee

## Patron

Dr.N.R.Alamelu Director- Academics

Dr.P.Karuppuswamy Vice-Principal

## **Chair Person**

Dr.A.Murugarajan Professor & Head Department of Robotics and Automation

## Coordinator

## **Dr.A.Kishore Kumar**

Assistant Professor (SI.G) Department of Robotics and Automation Sri Ramakrishna Engineering College Vattamalaipalayam, NGGO Colony Post, Coimbatore-641022, Tamilnadu Mobile: 9894847519 Email: kishorekumar.a@srec.ac.in

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Three Day National Level Workshop with ROS Framework on "SLAM Navigation & Autonomous Map

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Organized by

## DEPARTMENT OF ROBOTICS AND AUTOMATION



### SRI RAMAKRISHNA ENGINEERING COLLEGE

(An Autonomous Institution) Approved by AICTE, Affiliated to Anna University, Chennai, Reaccredited by NBA, Reaccredited with 'A+' Grade by NAAC, Vattamalaipalayam, NGGO Colony Post, Coimbatore-641022 Website: <u>www.srec.ac.in</u> Phone No: 0422 - 2460088, 2461588

#### **ABOUT THE INSTITUTION**

Sri Ramakrishna Engineering College (SREC), Coimbatore established in the year 1994 by SNR Sons Charitable Trust has grown into an eminent institution in Tamilnadu with an objective to impart diversified technical education, creating successful technocrats to meet the global challenges. SREC is re-accredited by NAAC with 'A+' grade and Seven of the B.E/ B.Tech programmes have been accredited and re - accredited by National Board of Accreditation, New Delhi, since 2003. A very good research culture exists in the campus with an average annual funding of Rs. 3.4 crore from various funding agencies - AICTE, DST, CSIR, DRDO etc.. The institution is also funded through DST- FIST and DST- INSPIRE and DST- NST MIS. The departments are closely working with the industries -L&T, Bi-Metal Bearings, Roots Industries, Tech Mahindra and other companies on Consultancy.

#### ABOUT THE DEPARTMENT

A four-year B.E. Degree on Robotics and Automation is launched in the silver jubilee year of the institution with an intake capacity of 60 students. L&T Technologies-Chennai, WIPRO-PARI and Craftsman Automation-Coimbatore are Industrial Knowledge partners for the programme. This programme focuses on the design, construction, operation and use of autonomous and robotic devices, as well as the computer systems necessary for their control, sensory feedback and information processing. Through project-based learning, design thinking, and inquiry learning, students will explore the processes and skills needed to design and fabricate physical devices that they will control or automate. Students are able to explore design of automation systems, mobile robotics and animatronics as well as traditional robotic devices.

#### ABOUT THE ROBOTICS SOCIETY (TRS)

The Department is associated with The Robotics Society (TRS), India and started authorized TRS Student Chapter for promoting knowledge sharing activities in the area of Robotics.

#### **OBJECTIVE OF THE WORKSHOP**

- Understanding the fundamentals of SLAM technology and its significance in robotic navigation.
- Exploring ROS architecture and its role in facilitating SLAM applications.
- Implementing various SLAM algorithms for real-time mapping and localization.
- Hands-on experience with ROS packages for SLAM.
- To promote scientific information interchange between TRS student chapter members & researchers.

#### **FACULTY TRAINERS**

The Sessions will be handled by Experts from reputed Institutions/Industries in the Robotics and Automation field.

#### **RELEVANCE & BENEFITS**

Brief course contents that would be delivered to the audience are:

- Introduction to SLAM Navigation & ROS framework.
- Setting up the development environment with ROS.
- Theoretical Foundation of 2D and 3D Localization.
- ROS Turtlebot3 Installation and Basic Working, Topics, Services.
- Map-Based Navigation.

#### ELIGIBILITY

Students from AICTE approved Institutions Robotics/Mechatronics/Mechanical/ECE/EEE/EIE/ AIDS/CSE branches are eligible.

#### **IMPORTANT DATES**

Last Date for Registration	: 19.07.2024
Intimation of selection	: 20.07.2024
Confirmation by Participants	: 21.07.2024

#### **BOARDING AND LODGING**

Boarding and lodging will be provided to the participants in the college campus, on chargeable basis.

#### **REGISTRATION FEE DETAILS**

Students (UG & P.G): Rs.1000/-

TRS Student Chapter Members: Rs.500/-

Gpay Number: 9894847519

#### **REGISTRATION LINK**



### ABOUT THE LOCATION

The college is located 14 KM from Gandhipuram Bus Stand / Railway Station. 4 KM from Thudialur.

#### ADDRESS FOR CORRESPONDANCE Dr.A. Kishore Kumar

Assistant Professor (SI.G) Department of Robotics and Automation Sri Ramakrishna Engineering College Vattamalaipalayam, NGGO Colony Post, Coimbatore-641022, Tamilnadu Mobile: 9894847519, Email: kishorekumar.a@srec.ac.in