## **Organizing Committee:**

Dr. J. E. Nalvade

Prof. V. T. Lokare

Prof. N. P. Gaikwad

Prof. R. S. Patil

Prof. D. I. Ghadage

Prof. K. B. Pawar

Prof. V. C. Deshmukh

**Prof. Shelly Sinha** 

## **Program Coordinator:**

Prof. Mrs. S. S. Patil, CSE, RIT

# Program Committee: Chief Patrons:

Hon. Bhagatsinh Patil,

Chairman, Board of Governors

Col. B. Venkat,

**Director, Faculty Development Cell, AICTE** 

Dr. Pratapsinh K. Desai,

President, ISTE

Prof. Vijay D. Vaidya,

**Executive Secretary, ISTE** 

#### Patron:

Hon. Dr. Mrs. S. S. Kulkarni, Director, RIT

Hon. Dr. S. K. Patil, Dean Academics, RIT

**Program Convener:** 

Dr. N. V. Dharwadkar, HOD, CSE, RIT

## **Guidelines:**

- No registration fees.
- Faculty members from AICTE approved institutions, research scholars, persons from industries can register.
- Preference will be given to ISTE members.
- The number of participants is limited to 100 and participants will be selected on first come first serve basis.
- Lecture Sessions will not be conducted on Sunday.
- An online test will be conducted and a feedback form has to be filled on the last day.
- The certificates shall be issued by AICTE-ISTE to only those participants who have. attended the program with minimum 80% attendance and scored minimum 60% marks in the test.
- Limited seats only.
- Certificate Carries Weightage for Career Growth.
- Registration form link: https://forms.gle/RsqFTKz4PbCYqsG6A
- Last date for registration: 12th January 2022

## **Contact Details:**

Prof. Krunal Pawar- 8999404390 Prof V. C. Deshmukh- 7219369274





AICTE-ISTE Sponsored, Induction/Refresher Programs on

"Intelligent Technologies for Autonomous Vehicle System"

January 14th to 20th, 2022

**Mode: Online** 

Organized by:



**Computer Science and Engineering Department** 

K.E. Society's

## Rajarambapu Institute of Technology

(An Autonomous Institute)

Rajaramnagar , Islampur, Dist.Sangali, Maharashtra, India-415414,

www.ritindia.edu

About the RIT: Rajarambapu Institute of Technology, Rajaramnagar established in August 1983 and became autonomous in 2011. Its methodical academic monitoring, innovative staff development programs and implementation of Outcomes Based Education forged it ahead of other institutes. RIT is consortium member of Indo-US Collaboration for Engineering Education (IUCEE) india since 2008. It offers seven UG, ten PG and three Ph. D. Programs. An 'A' Grade Institute awarded by State Government. The institutes all eligible programs are accredited and reaccredited by NBA New Delhi. About the Department: Department of CSE established in 1999. It is just 21 years old. Within this short span of time, it has been able to win acclaims and reputation for itself both in teaching and research activities. It is worthwhile to state here that some of the students are pursuing their higher studies in computer science at prestigious places like Texas University & Toronto University.

About AICTE: The All India Council for Technical Education (AICTE) is the statutory body and a national-level council for technical education, under Department of Higher Education, Ministry of Human Resource Development. Established in November 1945 first as an advisory body and later on in 1987 given statutory status by an Act of Parliament, AICTE is responsible for proper planning and coordinating for development of the technical education and management education system in India.

About ISTE: The Indian Society for Technical Education (ISTE) is the leading national professional non-profit making society for the technical education system in our country with the motto of career development of teachers and personality development of students and overall development of the technical education system. ISTE is actively involved in many activities conducted by All India Council for Technical Education New Delhi (AICTE) and National Board of Accreditation New Delhi (NBA).

About AICTE-ISTE Induction/Refresher Program: These programs are essential for teachers in technical institutions for their professional refinement, for updating knowledge and improving organizational and pedagogical skills. AICTE-ISTE refresher programs provide an opportunity for interaction and mutual exchange of ideas between teachers interested and/or working in particular areas of specialization.

About the FDP: The automotive industry has had a long tradition for vehicle manufacturers to produce a new version of their models each year. For autonomous vehicles (AVs), the primary focus of feature enhancement or addition is safety in pursuit of achieving a fully driverless car. The most of the car has features like lane control, Adaptive Cruise Control (ACC) feature for enhancement of the common cruise control that maintains a constant speed, Automatic Emergency Breaking System (AEBS), Street Sign Recognition, Vehicle-to-Vehicle etc.

This Faculty development Programme focuses on cutting edge technologies and associated concepts related to autonomous vehicles and Self-driving car features, those can be implementable using machine learning, deep learning.

#### **Objectives:** A Major aim of this program is:

- To explore the state-of art technologies in the area of Autonomous vehicle system
  through a series of lectures delivered by eminent persons working in this field and to
  provide some hands on experiences with machine Learning and deep learning.
- To Comprehensive building blocks of principles concepts, major issues, technologies and basic approach in new era of transformation in the transportation system.
- To provide a knowledge on various autonomous features of vehicles under the context of AEV (Autonomous Electrical Vehicle) and development of material for electrical vehicle accessories.
- To providehands-on experience for object detection identification algor ithms and technologies related to lane detection using image processing(with Artificial Intelligence and Machine Learning)
- Explore technological evolution in Autonomo

#### **Course Content:**

- Autonomous Vehicle System: Overview and Challenges, Hardware-Software Architechture.
- Basics of Machine Learning and Artificial intelligence with git hub & Python libraries.
- Development of Materials for Electrical Vehicle Accessories.
- Autonomous Vehicles: Cyber Security Threats & solutions, Car saftey, Visual perception, Localization and state estimation, Movement Strategies for Connected and Automated Vehicles on Lane-free roads.
- Al based Penetration of the DER In the Active distribution System using Matlab simulation.
- Runtime Tagging of Driving Style in Imbalanced Big Data Sets using Deep Learning Approach.
- Case Studies: i) Advanced algorithm development for car passenger safety.
  - II) Feature of AV through M/C Learning and Deep Learning.

#### **Resource Person:**

- Dr. Ashish Paramane, NIT, Silchar
- Dr. Damodar Reddy, NIT, Goa
- Dr. Parikshit Mahalle, VIT, Pune
- Dr. K.C.Vora, ARAI Academy, Pune
- · Dr. Sanjeev Wagh, GCE, Karad
- · Dr. Manoj Kumavat, NIT, Delhi

- Dr. Venkata Karteek, TIET, Patiala
- Mr. Akshay Paradhi , NVIDIA ,Pune
- Dr. Nalini Iyer, KLE University, Hubli
- Dr. Prabha Nissimagoudar, KLE University, Hubali
- Dr. Venkatesh Mane, KLE University, Hubali
- Mr. Saurabh Marathe, Yogtech Industries Pvt. Ltd, Pune