## **Registration Details**

Registration Fee: Nil Registration Link: https://forms.gle/VN2F347zyR2zsfB77

## **Important Dates**

Last date of Registration	$: 10^{th} Dec 2021$
Intimation of confirmation	: 13 <sup>th</sup> Dec 2021
Commencement of programme	e: 17 <sup>th</sup> Dec 2021

# Selection Criteria

Number of participants is limited for this programme, application will be accepted on first come first serve basis

## **Target Audience**

Teaching staffs (faculty members) from various AICTE approved institutions/University departments imparting technical education

## Information

- The entire programme and assessment on topics covered will be conducted through online mode
- Participants are required to register themselves at the earliest
- The details of online platform and meeting link will be communicated to the selected candidates through their registered email
- Minimum 80% attendance and 60% Marks are required to earn e-certificate
- There is no session on Sunday, 19<sup>th</sup> December 2021

### *Chief Patron* **Prof. Achyuta Samanta** Hon'ble Founder, KIIT & KISS

Patrons Prof. Hrushikesha Mohanty Vice Chancellor, KIIT Deemed to be University Prof. Sasmita Samanta Pro Vice Chancellor KIIT Deemed to be University

#### Chair

**Prof. Byamakesh Nayak** Dean, SoEE, KIIT Deemed to be University

# **Advisory Committee**

Prof. Sukumar Mishra, IIT, Delhi
Prof. Bidyadhar Subudhi, IIT, Goa
Prof. Jnyana Ranjam Mohanty, KIIT-DU
Prof. Chinmoy Kumar Panigrahi, KIIT-DU
Prof. Sarat Chandra Swain, KIIT DU
Prof. Manoj Kumar Maharana, KIIT- DU

# **Organising Committee**

Dr. Ranjeeta Patel, SoEE, KIIT-DU Dr. Tanmoy Roy Choudhury, SoEE, KIIT-DU Dr. Rudra Narayan Dash, SoEE, KIIT-DU Dr. Sarita Samal, SoEE, KIIT-DU





AICTE-ISTE Sponsored Online Induction/Refresher Programme

on

"Electric Vehicle and Smart Grid: A Path Towards Sustainable Energy"

17<sup>th</sup> - 23<sup>rd</sup> December, 2021



Kalinga Institute of Industrial Technology Deemed to be University U/S3 of the UGC Act, 1956 Bhubaneswar, Odisha-751024

## Organized by

School of Electrical Engineering KIIT, Deemed to be University Bhubaneswar, Odisha – 751024, India http://www.kiit.ac.in

### For Details, please contact

Dr. Alivarani Mohapatra Coordinator Mob. No: +91 9439050584 Email: amohapatrafel@kiit.ac.in

## KIIT Deemed to be University (An Institute of Eminence)

KIIT, Deemed to be University is a co-educational, autonomous university located at middle heart of temple city Bhubaneswar in the Indian state of Odisha. The University offers under-graduate, post-graduate and doctoral courses in Engineering, Bio-technology, Medicine, Management, Law, Computer application, Rural management, Fashion, Film Studies, Journalism and Sculpturing. The Ministry of HRD, Govt. of India has accorded 'Institution of Eminence' (IoE) tag to KIIT Deemed to be University. It has been ranked in the cohort of 201-300 in the world by The Times Higher Education Impact Rankings 2021. The University has been ranked 21st among Indian Universities by National Institutional Ranking Framework (NIRF), Ministry of HRD, Government of India.

#### **School of Electrical Engineering**

The School of Electrical Engineering has been playing a vital role in producing Engineers and Scientists of highest caliber since its inception in the year 1997. At present, it offers UG, PG and Ph.D. programs in Electrical Engineering to cater to the ever challenging needs of technical excellence in all areas of Electrical Engineering. The School has partnered with different industries like NI Instruments, Siemens, Schneider Electric etc. to incorporate industry electives in the curriculum and to facilitate training /internship for the enriching of subject knowledge of the students. The value addition training and career augmentation services prepare students to meet expectations of industry demands.The icing on the cake is the accreditation of the school by IET (UK), NAAC, NBA (Washington accord) Tier-I and UGC

#### **Objective**

To create an effective forum for exchanging innovative ideas and research works in the areas of Electric Vehicles, Charging Technology and Smart Grid.

#### Context

Millions of electrification of transportation systems are predicted over the next few years due to the low carbon industry and smart grid initiatives. The digitalization of the power grid to smart grid provides value added services to the prosumers and other stakeholders involved in the energy market and to explore how EVs can achieve sustainable energy as a service business model in smart cities. The use of Electric Vehicles (EVs) do not only challenge the sustainability of the smart grid but also promote and stimulate its upgrading. The integration of EVs could bring substantial changes for the society not only in providing transportation services but also shifting economies from petroleum and reducing the carbon dioxide (CO2) emission from the transportation sector. EVs are major assets for a sustainable energy future as EV batteries offers an untapped opportunity to store electricity from renewable energy sources.

#### Scope

It provides an extensive roadmap for the academicians and researchers working towards the challenges and research avenues in the area of Electric Vehicle and Smart Grid technologies.

#### **Expected Outcome**

The expected outcome is to enrich the participants with skills and knowledge, which in turn is used to cultivate and nurture research attitude among them.

#### **Resource Persons**

Eminent Speakers from the field of Academia and Industry will be delivering their lecturers on the thematic areas of the program.

#### **Topics to be Covered**

- EV Charging and Grid Interactions
- Grid integration challenges of Integrated Charger schemes for EVs with V2G feature
- Distributed control of a Microgrid
- Transactive Energy Framework Involving Community Microgrids
- Renewable Energy Based EV Charging System with Grid Support Functionality
- Recent Trends of Smart Grid in India
- A review on Electric Vehicle policy and Road Ahead for EVs
- Electrical Propulsion System Design with Electrical Motors
- Control of Converters for EV Application: The Modern Trends
- Smart Grid: A challenge or an opportunity
- Grid Integration of RES: Challenges and Prospectus
- Impact of Electric Vehicle on Power Quality
- Balancing of state of charge through battery management system
- Grid Integration of EV: Market based solutions