

## REGISTRATION FORM

Name:  
Designation:  
Organization:  
Postal Address:

Mobile:  
E-mail:  
Accommodation Required ? Yes / No

## PAYMENT DETAILS

Amount:  
DD/Trans ID:  
Beneficiary Name:  
Bank:  
Date:

Declaration by Applicant

The above mentioned is true to the best of my knowledge and belief. I shall attend the Twoday National Workshop for the entire duration.

Signature of the Applicant

## Sponsorship Certificate

Certified that Ms. .... is sponsored to attend the Two-day National workshop

Signature of the Sponsoring Authority with seal

## CHIEF PATRONS

Dr.B.Babu Manoharan, M.A.,M.B.A.,Ph.D.,  
Chairman, St.Joseph's Group of Institutions.  
Mrs.S.Jessie Priya,M.COM.,  
Managing Director, St.Joseph's Group of Institutions.  
Mr.B.Shashi Sekar,M.Sc.,  
Director, St.Joseph's Group of Institutions.

## PATRONS

Dr.Vaddi Seshagiri Rao, M.E.,M.B.A.,Ph.D.,  
Principal, St.Joseph's College of Engineering.  
Dr.B.Parvatha Varthini, M.Sc.,M.B.A.,M.E.,Ph.D.,  
Dean (Research), St.Joseph's College of Engineering.

## IQAC CO-ORDINATOR

Dr.N.Arunkumar, M.E.,Ph.D.,  
Professor and Head/Mechanical Engineering

## CONVENER

Dr.T.V.Narmadha,M.E.,Ph.D.,  
Professor and Head-Lab Affairs/EEE

## CHAIRPERSON

Dr.Jayarama Pradeep, M.E.,Ph.D.,  
Professor and Head-Staff Affairs/EEE

## ORGANISING SECRETARY

Dr.V.Krishnakumar  
AssociateProfessor/EEE

## COORDINATORS

- Dr.M.Venmathi  
AssociateProfessor/EEE
- Dr.V.Vasanprabu  
AssociateProfessor/EEE
- Dr.P.Velmurugan  
AssociateProfessor/EEE
- Dr.P.Anbarasan  
AssistantProfessor/EEE
- Mr.S.Sridharan  
AssociateProfessor/EEE
- Mr.R.Elanthirayan  
AssistantProfessor/EEE
- Mr.R.Elavarasan  
AssistantProfessor/EEE

## FOR FURTHER CORRESPONDENCE CONTACT

The Chairperson Workshop,  
Department of EEE,  
St.Joseph's College of Engineering,  
OMR Chennai, Ph:9944235136,  
Telephone:044-24501060  
ContactEmail:evworkshopsjce@gmail.com

## TWO DAYS WORKSHOP ON RESEARCH CHALLENGES AND OPPORTUNITIES IN POWER ELECTRONIC CONVERTER INTERFACING FOR ELECTRIC VEHICLE MOBILITY

Date: March 26<sup>TH</sup> and 27<sup>TH</sup>, 2020.



\*1994-2020\*  
SPONSORED BY  
THE COUNCIL OF SCIENTIFIC AND  
INDUSTRIAL RESEARCH (CSIR)



ORGANIZED BY  
DEPARTMENT OF  
ELECTRICAL AND ELECTRONICS ENGINEERING



## St. JOSEPH'S COLLEGE OF ENGINEERING

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## ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering since its inception in 1996 has consistently brought laurels to the college. The department has been accredited by NBA since 2003. Our department has been enriched with well planned & sophisticated laboratories to fulfill our students educational & industrial needs. The personality development and career awareness of our students are continuously monitored and improved by conducting special programs during every semester. The department faculty members besides teaching are involved in many activities like continuing education, technical consultancy and research & development and student guidance. We have 34 faculty members to guide our students and perform their best. We have planned to bring together the eminent personalities in the academic institutions, industries and research organisations to facilitate exchange of innovative ideas in the field of power electronics and power systems engineering. The department has signed MOU with Nuvoton Technology Corporation, TRANSUN Energy Systems, SANDS Signal and Ltd, Niyata Info Tech, CDCE Automation, NSIC Ltd. The department also has formed three IEEE students chapter technical society and one affinity group. The main thrust of the department of Electrical and Electronics Engineering is to provide quality education required by the industry and supplement the research in core engineering field

## ABOUT THE WORKSHOP

EVs are increasingly popular, as demonstrated by the numerous vehicles recently made available in the market by almost all automakers. Nowadays, energy efficiency is a top priority, boosted by a major concern with climatic changes and by the soaring oil prices in countries that have a large dependency on imported fossil fuels. A great part of the oil consumption is currently allocated to the transportation sector and a large portion of that is used by road vehicles. According to the international energy outlook report, the transportation sector is going to increase its share in world's total oil consumption by up to 55% by 2030. Aiming an improvement of energy efficiency, a revolution in the transportation sector is being done. The bet is in the electric mobility, mostly supported by the technological developments in different areas, as power electronics, mechanics, and information systems. The main energy storage elements used in these vehicles are batteries of different technologies. Batteries need to be charged and the more common source for that is the power grid. However, the

Spread use of EVs will bring consequences to the power grid, mainly in terms of load management and electric power quality, which are associated to the batteries charging systems. Many developments in the area of the batteries charging systems are being made, with the development of new topologies and control strategies. In parallel, the development of Smart Grids and the spread of micro renewable energy production systems have created a new paradigm in power grids.

## OBJECTIVES OF THE WORKSHOP

The programme is planned effectively to meet the objectives of the workshop and serve the engineering community to realize the role of research challenges and opportunities in Power Electronic Converter Interfacing for Electric Vehicle Mobility. The steps involved to implement the recommendations of the workshop are as follows;

- To create an awareness on the importance and applications of power electronics converter interfacing of Electric vehicle mobility.
- To provoke new concepts and innovative ideas based on Electric vehicle mobility in minds of young engineers.
- To bring together people working on power converter interfacing of EV on a same arena to discuss and sort out current trends and issues on it.

## KEY CONTENT

- Different types of drives used for EV
- Design Aspects of EV-modeling and Validation
- Power Converters design for EV
- Interfacing Circuits for EV
- Digital Controller for EV and its charging stations
- Battery Management system for EV
- Energy management System strategy for EV

## ELIGIBILITY

UG / PG Students / Faculty members from educational Institutions , Research Scholars and Aspiring persons from Industry

## RESOURCE PERSONS

**Dr K. Ramesha,**  
Senior Principal Scientist & Professor  
CSIR CECRI-Madras Unit  
CSIR Madras Complex  
Taramani, CHENNAI - 600 113.

**Dr. Akhila Kumar Sahu,**  
Senior Scientist,  
CSIR CECRI- Chennai.

**Dr. M. Balaji,**  
Associate professor/EEE,  
SSN college of Engineering,  
Chennai.

**Dr.C.Bharati Raja,**  
Associate professor/EEE,  
SRM Institute of Science and Technology,  
Chennai.

**Mr. N.Ganesh**  
Director & Country Manager  
E-Propelled Electric Vehicle Limited (USA),  
India.

**Dr. A. Athif Shah,**  
Managing Director & Chairman,  
ABE Semiconductor Design,  
Chennai.

**Mr.S.Selvakumar,**  
Head- Engineering & Head,  
Power Projects,  
Chennai.

## IMPORTANT DATE

MARCH 26<sup>th</sup> AND 27<sup>th</sup> 2020

## ACCOMMODATION

Limited accommodation will be provided on prior request under free of cost. No TA/DA will be paid

## REGISTRATION FEE

FACULTY / UG / PG STUDENTS / RESEARCH SCHOLARS -500/-  
INDUSTRIAL PARTICIPANTS -750/-