



**HINDUSTAN**  
INSTITUTE OF TECHNOLOGY & SCIENCE  
(DEEMED TO BE UNIVERSITY)



**SCHOOL OF ELECTRICAL SCIENCES**

**DEPARTMENT OF ELECTRICAL AND  
ELECTRONICS ENGINEERING**

Cordially invites you for the  
FDP on

**“PRODUCT DEVELOPMENT  
IN HV POWER DEVICES”**

**Guest Speaker**

**Mr.S.V.Sreeraj**  
Director & Mentor  
EmCog Solutions, Chennai

**Dr. (Mrs). Elizabeth Verghese**  
Chancellor, HITS  
will preside over the function

Date: 02<sup>nd</sup> & 03<sup>rd</sup> January, 2020 Time: 10:00 AM  
Venue: Applied Electronics Lab (JB 408)

**Dr. Anand Jacob Verghese**  
Pro-Chancellor

**Dr. K.P.Isaac**  
Vice-Chancellor

# ABOUT HINDUSTAN GROUP

Hindustan Institute of Technology & Science is a leading private University in India and completed 33 years of dedicated service to the Nation. We are conducting U.G., P.G. Programs in Engineering, Technology, Management, Architecture, Planning, design, science, Humanities and Law including Ph.D. The Institution is a part of the most reputed Hindustan Group of Institutions which includes other institutions such as KCG College of Technology, Hindustan Arts and Science College, Orient Flight School and Hindustan Institute of Engineering and Technology.

In recognition of the highly commendable and professional academic credentials of the faculty, excellent infrastructure, remarkably consistent placement record, innovative & cutting edge research activities and most coveted cosmopolitan ethos of the Institution, the University Grants Commission under Department of Higher Education and Government of India conferred the Deemed University status in 2008.

## SCHOOL OF ELECTRICAL SCIENCES

The School of Electrical Sciences runs two B. Tech. programs in Electrical & Electronics Engineering and Electronics & Communication Engineering. The school offers M. Tech. programs in Power systems, Power Electronics & Drives, Embedded Systems, VLSI, Communication Systems and Process Control & Instrumentation. The school conducts research leading to Ph.D. degree in specialised areas. The school has extensive laboratories for teaching and research.

## FOR REGISTRATIONS



## REGISTRATIONS FEES

Research scholar : Rs 1500  
Faculty/Academician : Rs 2000  
Industry participants : Rs 5000

## ADDRESS FOR CORRESPONDENCE

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**HINDUSTAN**  
INSTITUTE OF TECHNOLOGY & SCIENCE  
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School of Electrical Sciences

Department of Electrical and  
Electronics Engineeringg

TWO DAYS FDP ON  
**PRODUCT  
DEVELOPMENT IN  
HV POWER  
DEVICES**  
nd th  
02 & 03 JANUARY, 2020

"BUILD YOUR OWN INVERTER  
AND TRANSFORMER"





## OBJECTIVE

To enhance the learner's design knowledge, visualize concepts & apply it through notion of engaged learning following Revise Bloom's Taxonomy hierarchy.

## DELIVERABLES

The Scope of this training includes only Design & Development of Commercial DC-AC Square Wave Inverter Prototype board. Four Students shall share one board. At the end of successful completion of training learner' batches can take away the product and utilize at home.

## KEY DESIGN MODULES

The two days session will cover practically many important design concepts which an Electrical Engineer should envisage before embarking in Electrical Industry such as

- Designing a Low Frequency Transformer for any given Specifications
- Design & develop a cheaper control circuit.
- A novel Mosfet Driver Circuit as commercial inverter designer uses an IC.
- Designing & Developing a Low Frequency Snubber Circuit.

## TOTAL STRENGTH

To maintain consistently the effectiveness of this training, the numbers of seats are limited to 60 students in a slot. Material expenses required for the training will be borne by the trainers.



## RESOURCE PERSON

Mr.S.V.Sreeraj

Director & Mentor

EmCog Solutions,Chennai

## TRAINING SCHEDULE

### DAY 1

09:00 am to 10:00 am

Fundamentals of transformer design

10:00 am to 11:00 am

Design of inverter specific transformer

11:15 am to 12:45 pm

Design of sq. wave/sine wave inverter

01:45 pm to 03:30 pm

Hands on session 1 on transformer inverter development,

### DAY 2

09:00 am to 10:00 am

Software Development for Square Wave Inverter Using PIC MCU

10:00 am to 12:45 pm

Hands-on session-2 for Transformer and Inverter Development

10:45 pm to 02:15 pm

Generating Hex Code and Flashing Hex Code using PICKit3 tool kit

02:15 pm to 03:30 pm

Testing & Validating Commercial Square Wave Inverter(DC-AC) Circuit Board