

## Objective of the Summer Internship Program

This internship/ training program is designed to keep in mind the need of Undergraduate and Post Graduate Students of Engineering who have enthusiasm to learn the Emerging trends of Electrical Engineering especially the field of Power Electronics application and Electric Vehicle Chargers with Simulation and Practical study. This training course shall cover both theoretical as well as the practical aspects which help students not only in their coming final year B.Tech projects but also it will help them in Campus Interview by describing these designing parts to Companies and they can show their ability to work on Software & Hardware platforms. The main theme of training program will oriented around Power Electronics as this subject is a back bone in Electrical & Electronics Engineering which covers all converters section, regulated and unregulated power supplies, gate driver circuits, application in Electric Vehicles and many more. The role of Power Electronics is to process and control the flow of electrical energy by supplying voltages and currents in a form that optimally suit to consumer loads. Power electronics and motion control have emerged as very important technologies in the recent trend of industrial automation. This training program aims to cover those recent features of Power Electronics and their associated applications in form of Simulation and Hardware which is a small contribution to make India to become a Skill Capital of the World.

## Course Content

The major course contains of the program are:

- Introduction of Power Electronics and Application in Electric Vehicle Charging.
- Introduction of Power Supplies.
- Hands-on practice of Simulating Software.
- Power Electronic Converters- Principle and Design.
- Modelling and Simulation of Electric Vehicle Charging and Discharging.
- Designing & Fabrication of Power Supply.
- Design and Fabrication of High Frequency Gate Driver Circuit, Specifically for chargers.
- Hands-on practice of designing & fabrication of power electronic converters.
- Basic of Microcontroller for Pulse Generation.

## Eligibility / Target Audience

This summer internship program is targeted towards UG, PG (Power System or Power Electronics) students and Faculty of Govt. / Govt. aided / self- financed engineering colleges who have interested in computer simulation, designing part & fabrication of Power Electronic Circuits and etc. All the

undergraduate students who are appearing in the 4th and 6th semester examinations are eligible to apply.

## How to Apply / Registration

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>UG Students (EE/ EEE/ EC)</b> | <b>10000/-</b>                   |
| <b>PG Students/PhD</b>           | <b>11800/-</b>                   |
| <b>Faculty</b>                   | <b>11800/-</b>                   |
| <b>Mode for Payment</b>          | <b>Demand Draft or NEFT/IMPS</b> |

- **Demand Draft:**  
**"The Registrar MNIT, Jaipur (TEQIP Phase-III)"**  
 Payable at Jaipur
- **NEFT/IMPS:**  
**The Registrar MNIT, Jaipur (TEQIP Phase-III)**  
**Account No. 36875887782**

**IFSC CODE: SBIN0015921 (SBI, MNIT Campus, Jaipur)**

The applicants should register themselves for Summer internship program on SEaSR lab website (link available below) latest by 22<sup>nd</sup> April 2019.

<https://sites.google.com/view/seasr/ab>

**Kindly read the instructions available on website carefully before registering.**

**Note: The demand draft is also need to be send to us by repudiated courier only.** The selection is on first come first served basis depending upon the availability of the seats. Registration charges are non-refundable for selected participants.

## SEaSR Lab., Handmade Prototype for EV Battery Charging



## Registration Form

**TEQIP-III Sponsored  
Summer Internship Program**

on

## Design, Modeling & Implementation of Power Electronic Circuits for Renewable Energy and Electric Vehicle Chargers

20th May – 5th July 2019

Department of Electrical Engineering  
MNIT Jaipur – 302017 Rajasthan

Name: \_\_\_\_\_

Category (UG/PG): \_\_\_\_\_

Branch: \_\_\_\_\_

Year of Study: \_\_\_\_\_

Department: \_\_\_\_\_

Institute: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone: (M) \_\_\_\_\_ (O) \_\_\_\_\_

E-mail: \_\_\_\_\_

Accommodation required? Yes/ No

**Registration fee Details (Tick on applicable)**

|                                  |           |  |                  |  |
|----------------------------------|-----------|--|------------------|--|
| <b>Mode of Payment</b>           | <b>DD</b> |  | <b>IMPS/NEFT</b> |  |
| <b>Transaction Reference No.</b> |           |  |                  |  |
| <b>Date</b>                      |           |  |                  |  |
| <b>Registration Amount</b>       |           |  |                  |  |

The payment has to be made to the **"The Registrar MNIT, Jaipur (TEQIP Phase-III)"**

The information provided above is true to the best of my knowledge. If, selected, I agree to abide by the rules and regulations of the program and MNIT Jaipur.

Date: \_\_\_\_\_ **Signature of Candidate**

The applicant will be permitted to participate in the above program, if selected.

Date: \_\_\_\_\_ **Signature of HOD with Seal**

## About MNIT Jaipur

Malaviya National Institute of Technology Jaipur (Deemed University) is one of the premier NITs, designated with the status of "Institute of National Importance" by MHRD. The institute was established in 1963, and its campus spreads over 325 acres of lush green area in the central location of Jaipur city. The institute offers undergraduate and postgraduate courses (B.Tech., M.Tech. /MBA/ M.Sc. & Ph.D.) to about 4500 students, in leading fields of engineering, technology, architecture, management & sciences. Through the internationally renowned faculty, laboratories with state of art equipments and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching.

### Electrical Engineering Department

The Department is one of the oldest departments of the institute, offering a fine blend of experience and innovation in teaching. Presently, offering under-graduate and post-graduate studies in Electrical Engineering and Power Systems & Power Electronics Engineering, respectively. The department is home to over 35 research scholars, pursuing Ph.D. in varied fields of Electrical Engineering. The department provides a life-long learning experience, through its state of art laboratories, vast pool of courses, and industry-orientation. A strong collaborative framework with reputed universities in India and abroad, the department offers ample opportunities for individual growth.

### About Jaipur

The city of Jaipur also known as Pink City and is the capital and largest city of Rajasthan. Jaipur has the attractions like Hawa Mahal, Amber Fort, Jaigarh Fort, Nahargarh Fort, Jal Mahal, Kanak Vrindavan Valley, City Palace, Jantar Mantar, Albert Hall Museum, Sisodia Rani Garden, Govind Devji Temple, Birla Temple, etc.

### Benefits to the Student Interns

- Individual Batch-wise staff Allocation & Assistance
- Materials cum Certification
- Hands-on Oriented Training – Preparing for Basics on their domain, and Coding.
- Certificate on Internship Completion / Implementation

## Organizing Committee

### Patron

Prof. Udaykumar R Yaragatti, Director, MNIT-Jaipur

### Program Advisor

Prof. R.A. Gupta, Professor, Department of Electrical Engineering, MNIT-Jaipur

### Program Coordinators

Dr. Arun Kumar Verma, Assistant Professor, Department of Electrical Engineering, MNIT-Jaipur

Dr. Nitin Gupta, Assistant Professor, Department of Electrical Engineering, MNIT-Jaipur

Dr. Neeli Satyanarayana, Assistant Professor, Department of Electrical Engineering, MNIT-Jaipur

### Accommodation

Limited accommodation is available in the MNIT Hostels for outstation participants on nominal charge and first come first serve basis. The participant will not be paid any TA/DA. Charges of Institute Hostels are approximately **Rs. 200/-\* per day** including food and accommodation

### Important Dates

|   |  |
|---|--|
| Last date of receiving complete registration form | <b>30<sup>th</sup> April 2019</b>                      |
| Confirmation of selection by E-mail               | <b>10<sup>th</sup> May 2019</b>                        |
| Internship Duration                               | <b>20<sup>th</sup> May to 5<sup>th</sup> July 2019</b> |

### Address for Communication

#### **Dr. Arun Kumar Verma/Dr. Nitin Gupta**

Assistant Professor

Department of Electrical Engineering,  
Malaviya National Institute of Technology,  
J. L. N. Marg, Jaipur-302017, Rajasthan

M: +91-8824478746, +91-9783948059, +91-9825363365

E-mail: seaslab.eemnit@gmail.com

**\*Accommodation rates are tentative and all rights are reserved by the Hostel Office, MNIT Jaipur.**

## **TEQIP-III Sponsored Summer Internship Program**

**With the Aim**

**"Make India the Skilled India"**

**on**

## **Design, Modeling & Implementation of Power Electronic Circuits for Renewable Energy and Electric Vehicle Chargers**

**20<sup>th</sup> May to 5<sup>th</sup> July 2019**



**Organized By**

**Department of Electrical Engineering  
Malaviya National Institute of Technology  
Jaipur – 302017, Rajasthan, India**

**(www.mnit.ac.in)**