

## 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 Electrical Machines and Power Electronics with Simulation and Practical study. This program will enhance student's skill by exploring their domain knowledge of Power Electronics and others on Hardware platform by designing & fabricating small circuits in Laboratory. 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, 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 contents of the program are:

- Introduction of Power Electronics and Electrical Machines.
- Introduction of Power Supplies.
- Analog and Digital Design of Electronic System.
- Hands-on practice of Simulating Software.
- Power Electronic Converters- Design, Principle, Modelling and Simulation Techniques.
- Designing & Fabrication of Power Supply.

- Hands-on practice of designing & fabrication of power electronic converters including Gate & Power circuitry.
- Basic of Microcontroller and Pulse Generation
- Challenges and Opportunities in Power Electronic area

## Resource Persons

The various sessions of this internship program will be precede by faculty members of MNIT Jaipur, faculty of other reputed institutions like IITs, NITs, IIITs and experts from industries. During the programme, participants will have lectures from them and will have chance to interact local faculty working in power electronics and machines area.

## Eligibility / Target Audience

This summer internship program is targeted towards UG and PG students 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

**UG Students (EE/ EEE/ EC) 7500/-**

**PG Students 7500/-**

(Note:- PG specialization should be in Power System or Power Electronics).

Fee shall be paid by Demand Draft in favour of **“Registrar, MNIT Jaipur”** payable at Jaipur. Duly filled application by student in the prescribed format and sponsored by the respective Head of Department, may be sent to the Coordinator so as to reach on or before **8<sup>th</sup> May 2017**. The applicant may also send an advance scanned copy of the application form and DD-copy through E-mail. The selection is on first come first served basis depending upon the availability of the seats. Registration charges are non-refundable for selected participants.

## Registration Form

# Summer Internship Program

on

## “Designing & Fabrication of Power Electronic Circuits”

17<sup>th</sup> May – 2<sup>nd</sup> July, 2017

Department of Electrical Engineering  
MNIT Jaipur - 302 017 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

Draft No. \_\_\_\_\_ Dt \_\_\_\_\_

For Rs \_\_\_\_\_ in favour of **“Registrar, MNIT Jaipur”** is enclosed.

The above information provided is true and 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 undergraduate 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. It is a bustling trading centre with colourfully set bazaars, people sporting blood red turbans, puppet sellers, festivals and fairs. October to March is best time to visit Jaipur. Jaipur is well

connected by road, rail and air services. It is about 250 kms from Delhi. MNIT Jaipur is situated on JLN Marg and is about 9 kms each from main railway station of Jaipur and from Central Bus Stand (Sindhi Camp). Airport is about 3 kms away from the institute.

## Organizing Committee

### Patron

Prof. Udaykumar R Yaragatti, Director, MNIT-Jaipur

### Program coordinators

Prof. R.A. Gupta, Professor, Dept. of Electrical Engg., MNIT-Jaipur

Dr. Vikas Gupta, Asso. Professor, Dept. of Electrical Engg., MNIT-Jaipur

Dr. Nitin Gupta, Asst. Professor, Dept. of Electrical Engg., MNIT-Jaipur

Dr. Arun K. Verma, Asst. Professor, Dept. of Electrical Engg., 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. 230/- per day including food and accommodation.

## Dates to remember

Last date of receiving complete Registration form	8 <sup>th</sup> May 2017
Confirmation of Selection by E-mail	10 <sup>th</sup> May 2017
Internship Duration	17 <sup>th</sup> May to 2 <sup>nd</sup> July 2017

## Address for Communication

### Dr. Nitin Gupta

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Department of Electrical Engineering,  
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# Self-financed Summer Internship Program

With Aim  
“Make India the Skill India”

on

*Designing & Fabrication of  
Power Electronic Circuits*

May 17<sup>th</sup> – July 2<sup>nd</sup>, 2017



## Organized By

**Department of Electrical Engineering  
Malaviya National Institute of Technology  
Jaipur- 302 017  
Rajasthan- India  
(www.mnit.ac.in)**