

# NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

(A Unit of Sitwanto Devi Mahila Kalyan Sansthan, Jamshedpur)

AMHARA, BIHTA, PATNA - 801106 (BIHAR)

(Approved by AICTE, New Delhi And Dept. of Science & Technology, Govt. of Bihar)

Affiliated to : Aryabhatta Knowledge University, Patna & State Board

of Technical Education, Bihar

Mobile No.: 7781020364, 7781020346, 9102403265, 7781020361

Email: info@nsit.in | www.nsit.in



Ref.....

Date 19/01/2018

## MEMORANDUM OF UNDERSTANDING (MOU)

### BETWEEN

**Netaji Subhas Institute Of Technology, Bihta, Bihar, India**

**And**

**Power Integrated Solutions, Tiruchirappalli, Tamil Nadu, India**

**ENTREPRENEURIAL SKILL DEVELOPMENT, OUTCOME-BASED TRAINING,  
INTERNSHIPS, WORKSHOPS AND RELATED SERVICES**

## MEMORANDUM OF UNDERSTANDING

Where this MOU entered between **POWER INTEGRATED SOLUTIONS** and **NETAJI SUBHAS INSTITUTE OF TECHNOLOGY, BIHTA, BIHAR, INDIA** on 8<sup>th</sup> Aug 2018 and is effective from **01.08.2018 to 01.08.2023** and the MOU shall be **valid for a period of FIVE Years** unless agreed by both parties in writing.

**Netaji Subhas Institute of Technology, Bihta, Bihar, India, THE FIRST PARTY**  
represented herein by its **Head of the Institute of NSIT.**

AND

**Power Integrated Solutions, Tiruchirappalli, Tamil Nadu, India, THE SECOND PARTY**  
represented herein by its **DIRECTOR (Madhan Kumar M)**

### PURPOSE OF MOU

In particular, this MOU is intended to,

- A. Academic Training and skill development:** PIS will provide training programs, courses, internships, and workshops to NSIT students in various fields of Robotics, Artificial Intelligence, Product designing, and computer & information technology.
- B. Research Collaboration:** The Parties may collaborate on research projects in the area of mutual interest. The collaboration may include joint projects, exchange of researchers, and sharing of research facilities. Both parties are to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature is required.
- C. Entrepreneurship Development certificate course:** PIS will provide an Entrepreneurship Development certificate course to students in various fields including Robotics, the Internet of Things, Artificial Intelligence, Product designing, Web development, App development, Data science, Machine learning, and many more.
- D. Resource Sharing:** The parties may share resources such as research facilities, equipment, and software for the purpose of academic training and research collaboration.



### **Responsibilities of NSIT**

- a) **NSIT** will identify the area of training and research collaboration in consultation with **PIS**.
- b) **NSIT** will nominate students to participate in the training program, workshops, and research collaborations.
- c) **NSIT** will provide the necessary infrastructure and support for the training program, workshops, and research collaborations.
- d) **NSIT** will ensure the training program, workshops, and research collaborations comply with the ~~inst~~ policies and regulations of the institution.
- e) **NSIT** will promote the training course and workshops among its students.
- f) **NSIT** will ensure to conduct a minimum of 5 workshops per year on various topics that will be decided by both parties.
- g) **NSIT** will facilitate the smooth coordination between **PIS** and students for successful promotion and enrollment of courses/ internships/ training delivered by **PIS**.
- h) **NSIT** shall nominate a coordinator as a point of contact (POC) for **PIS** for the proper operation of the MoU.

### **Responsibilities of PIS**

- a) **PIS** will provide training and internship programs to students in various fields of Robotics, Artificial Intelligence, Product designing, and computer & information technology.
- b) **PIS** will provide the expert/trainer for training programs, workshops, and research collaborations.
- c) The program will enhance entrepreneurial mindsets among the students of the Entrepreneurship Development certificate course under **PIS**.
- d) **PIS** will organize various workshops on Entrepreneurship Development (Minimum 5 workshops per year).
- e) **PIS** will conduct practical hands-on training on Entrepreneurship Development.
- f) The program will generate self-employment opportunities for the students.
- g) **PIS** will assist the students in establishing various start-ups.
- h) **PIS** will arrange the training, internships, and Robotic & Coding Competitions for the students.
- i) **PIS** will ensure the training program, workshops, and research collaborations comply with the relevant policies and regulations of the institution

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

**Clause 1: CO-OPERATION**

- 1.1 Both parties are united by common interests and objectives, and they shall establish channels of communication and cooperation that will promote and advance their respective operations. The parties shall keep each other informed of potential opportunities and share all information that may be relevant to secure additional opportunities for one another.
- 1.2 The cooperation between First Party and Second Party will facilitate effective utilization of the intellectual capabilities of the Second Party providing significant inputs to them in developing suitable teaching/training systems, keeping in mind the needs of the First Party.

**Clause 2 : SCOPE OF THE MoU**

- 2.1 Both parties believe that close cooperation between the two would be a major benefit to the student community to enhance their skills and knowledge.
- 2.2 The Second Party will give valuable inputs to the First Party in teaching/ training methodology so that the students fit into the industrial scenario meaningfully.
- 2.3 The interaction between First Party and Second Party will give an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. The industrial training and exposure provided to students through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Labs/Workshops/Industrial engagement for the hands-on training of the learners enrolled with the First Party.
- 2.4 The Second Party will train the students of the First Party on emerging technologies in order to bridge the gap in skill and make them ready for industry.
- 2.5 The Second Party will extend the necessary support to deliver guest lecturers by industrial experts to the students of the First Party on the technology trends and in-house requirements.
- 2.6 The Second Party will actively engage to help the delivery of the training to students of the First Party into internships/jobs.



### Clause3: VALIDITY

- 3.1 The validity of the agreement is five years from the date of the agreement.
- 3.2 Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations.
- 3.3 This MoU may be amended by mutual agreement of the parties.
- 3.4 Any amendment to this MoU shall be in writing and will be adhered to accordingly.
- 3.5 This MoU will be governed by and construed in accordance with the laws of India.

### AGREED:

For

*J. Dalei*

Netaji Subhas Institute of Technology, Bihta

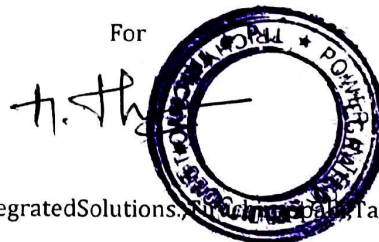
Authorized Signatory **H.O.D (EEE)**

Name: **Dr. J. Dalei**

Designation: **H.O.D**

Date: **19/01/2018**

For



Power Integrated Solutions, Trichy, Tamil Nadu.

Authorized Signatory

Name: **M. MATHANKUMAR**

Designation: **DIRECTOR**

Date: **19.01.2018**

Netaji Subhas Institute of Technology, Bihta	Power Integrated Solutions, Trichy, Tamil Nadu.
Address:- Amhara, Bihta, Patna-801118, Bihar	Address:- 10A/3, Radhakrishna Colony, Sastri Rd, Tennur, Trichy-620017, Tamil Nadu.
Contact Details:- 7781020349	Contact Details:- 7639385448.
E-mails:- info@nsit.in	E-mails:- <a href="mailto:contact@powerintegrated.in">contact@powerintegrated.in</a>
Web:- <a href="https://nsit.in/">https://nsit.in/</a>	Web:- <a href="http://www.powerintegrated.in">www.powerintegrated.in</a>

Witness1:

*Deepak*

Witness2:

*[Signature]*

Witness3:

*[Signature]*

Witness4:

A ONE WEEK WORKSHOP  
On  
Mechatronics and Industrial Drive Automation

Organized by  
Department of Mechanical Engg.

Netaji Subhas Institute of Technology  
Approved by AICTE and Affiliated to AKU, Patna



24<sup>th</sup> Oct to 31<sup>st</sup> Oct, 2018

Cheif Patron

Mr. M. M. Singh, Founder Secretary, NSIT

Patron

Mr. Krishna Murari, Registrar, NSIT

Convenor

Mr. P. K. Sinha, HOD, ME, NSIT

Coordinators

Mr. H. N. Sharma, NSIT Patna

Mr. M. K. Patel, NSIT Patna

Resource Person

Mathan Kumar M, Director  
Power Integrated Solutions, Trichy

**ABOUT NSIT BIHTA, PATNA**



Netaji Subhas Institute of Technology established in 2007, with first batch started in 2008 has its magnificent campus at Amhara in the district of Patna, Bihar. The nearest railway station is Bihta about 2 kilometres from the institute campus and about 25 KM from Patna A railway junction the state capital and major business and Educational hub of the state. Bihta is the industrial hub and blessings nerve centre of the entire state of Bihar. SIT, A Degree level Engineering Institute has become a "An effective source of Technocrats to the nation". with its unique infrastructural facilities of 4,00,000 Sq.Ft. of built up area on approximately 18 acres of green lustrous land at Amhara, Bihta, Patna, Ambience at the campus serve as Ashram like. The college offers 4 yaers B.Tech courses in CSE, ECE, EEE, ME and CE.

**ABOUT DEPARTMENT**

Mechanical engineering department is one of the oldest and leading departments of NSIT Patna. Having well-equipped laboratories and highly qualified faculties indeed contributes significantly to the overall learning experience of students. The exposure to well-equipped laboratories provides students with the opportunity to understand the practical aspects of mechanical engineering; helping them bridges the gap between theoretical knowledge and its practical applications. The ME has the intake of 180 students and approved by AICTE and affiliated to AKU, Patna

**DEPARTMENT VISION**

To bring forth quality engineering embodying societal ethical to serve and multinational organization as well as harping on higher studies.

**DEPARTMENT MISSION**

- To create a modern atmosphere focusing on advanced pedagogy and tools for mechanical engineers.



- To collaborate with domain industry and research to enhance the skills and knowledge of the graduates.
- To implant necessary professional skills to students for employment.
- To inculcate humanitarian ethical values in students through social-cultural activities.

**OBJECTIVE**

The recent changes in the industrial scenario automation an emerging field for students, teachers mechatronics is becoming prominent in industrial control application. The Proposed workshop aims to provide exposure to industry person and students. The program also aims to introduce students to various technologies and software such as AI, IOT, and AutoCAD.

**WORKSHOP CONTENT**

- ❖ INTRODUCTION TO MECHATRONICS
- ❖ SENSORS HANDLING IN MECHATRONICS
- ❖ STUDY OF MOTOR CONTROLLER
- ❖ STUDY OF VARIOUS LEVELS AND TYPES OF AUTOMATION
- ❖ STUDY OF SPEED INDICATOR WITH MICROCONTROLLER
- ❖ IOT WITH MOTOR CONTROL
- ❖ CONTROL IOT-BASED HOME AUTOMATION
- ❖ HARDWARE MODELLING

**Registration Fee**

The participation fees Rs 500/- only

Mode of registration :- Spot

For More Information Contact us on :-

7781020349, 7781020361, 9102403261

**Registration Form**

Name: .....  
Designation: .....  
Organization: .....  
Gender: .....  
Edu. Qualification: .....  
Address: .....  
Mobile Number: .....  
E-Mail: .....





Sl. No: NSIT/B.Tech/2018/

## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

Approved By All India Council for Technical Education (AICTE), New Delhi

(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihta, Patna - 801118 (Bihar)



### Certificate of Participation

This is to certify that M.r./Ms. **RAHUL TIWARI**

Reg.No. **17102103021** has successfully completed the one

week workshop/Seminar in "Mechatronics & Industrial drive Automation" conducted by the Department of Mechanical Engineering at **Netaji Subhas Institute of Technology, Bihta Patna** in association with **Power**

**Integrated Solutions, Trichy** held from 24<sup>th</sup> October to 31<sup>st</sup> October 2018.

Date: **19/11/2018**



**HOD**  
**ME, NSIT**



**Director**  
**NSIT**

Netaji Subhas Institute of Technology  
Amhara, Bihta, Patna, Bihar  
PIN-801106





Sl. No: NSIT/B.Tech/2018/

# NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

Approved By All India Council for Technical Education (AICTE), New Delhi

(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihta, Patna - 801118 (Bihar)



## Certificate of Participation

This is to certify that M r. /MS. .... **RAJ KUMAR** .....

Reg.No..... **16102103148** ..... has successfully completed the one

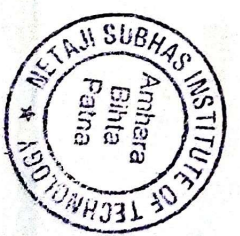
week workshop/Seminar in "Mechatronics & Industrial drive Automation"  
conducted by the Department of Mechanical Engineering at **Netaji Subhas**  
**Institute of Technology, Bihta Patna** in association with **Power**

**Integrated Solutions, Trichy** held from 24<sup>th</sup> October to 31<sup>st</sup> October  
2018.

Date: **19/11/2018**

**Managing Director**  
*[Signature]*  
**Power Integrated Solutions**

**HOD**  
*[Signature]*  
**ME, NSIT**



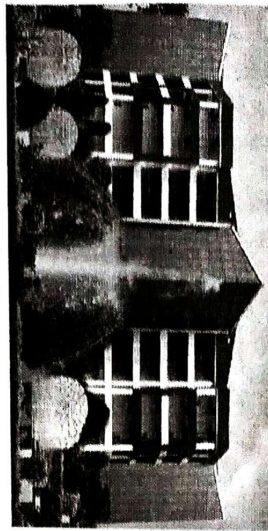
**Director**  
*[Signature]*  
**NSIT**





# Netaji Subhas Institute of Technology

Approved by AICTE and Affiliated to AKU, Patna



## Workshop ON

Real time Embedded Systems and its Application  
March 01-06, 2019

Organized by  
Department of EEE

### Coordinators

Mr. Ritesh Kumar, NSIT Patna  
Mr. Deepak Kumar, NSIT Patna

### ABOUT THE COLLEGE

Netaji Subhas Institute of Technology established in 2007, with first batch started in 2008 has its magnificent campus at Amhara in the district of Patna, Bihar. The nearest railway station is Bihta about 2 kilometres from the institute campus and about 25 KM from Patna. A railway junction the state capital and major business and Educational hub of the state. Bihta is the industrial hub and blessings nerve centre of the entire state of Bihar. NSIT, A Degree level Engineering Institute has become a "An effective source of Technocrats to the nation". with its unique infrastructural facilities of 4,00,000 Sq.ft. of built up area on approximately 18 acres of green lustre land at Amhara, Bihta, Patna. Ambience at the campus serve and Ashram like. The college offers 4 yaers B.Tech courses in CSE, ECE, EEE, ME and CE.

### ABOUT DEPARTMENT OF EEE

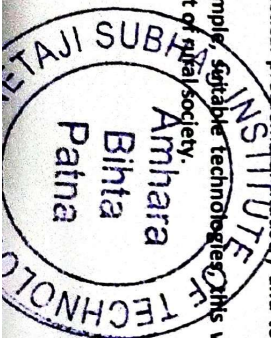
The Department of EEE has a team of well qualified, experienced and dedicated faculty members with rich academic, industrial and research background. The department is fully equipped with modern electronics equipment systems with latest software. The EEE has the intake of 120 students and approved by AICTE and affiliated to AKU, Patna

### DEPARTMENT VISION

To produce Electrical Engineers with energetic well rounded personalities flexible to cope escalating demands of budding technologies concerning analytical and practical skills.

### DEPARTMENT MISSION

To extend the department as a prominent academic centre of learning in the discipline of electrical engineering.  
To set up research and development hub of status so as to promote active participation with industry by staff and students to take on practical problems of industry and to provide feasible solutions.  
To develop simple, suitable technologies which will be helpful in the up-liftment of rural/society.



### OBJECTIVE

The objective of the workshop is to provide students to learn embedded systems and the devices used to control, monitor or assist the operation of equipment, machinery or plant. "Embedded" reflects the fact that they are an integral part of the system.

### WORKSHOP CONTENTS

- ❖ Basic knowledge of Embedded system and its applications
- ❖ Basic knowledge of Microcontrollers system and its applications
- ❖ Hardware development, prototyping, Testing and Commissioning

### Registration Fee

The participation fees Rs 1100/-

Mode of registration :- Spot

For More Information Contact us on :-

7781020349, 7781020361, 9102403261

### RESOURCE PERSON

Mathan Kumar M, Director  
Power Integrated Solutions, Trichy

### PATRONS

Mr. M. M. Singh, Founder Secretary, NSIT

Mr. Krishna Murari, Registrar, NSIT

Dr. S. Singh, Director, NSIT

### EVENT CHAIR

Dr. Aniket Dutt, Dean, NSIT

### CONVENOR

Dr. J. Datta, HOD, EEE, NSIT





Sl. No: NSIT/B.Tech/2019/

## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

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(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihta, Patna - 801118 (Bihar)



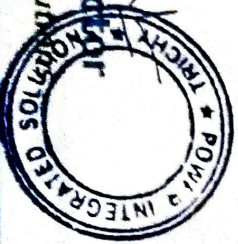
### Certificate of Participation

This is to certify that M. r. /Ms. Jeeyan Deep  
Reg.No. 164090 ..... has successfully completed the one  
week workshop/Seminar in "Real Time Embedded Systems and its  
Application" conducted by the Department of Electrical & Electronics  
Engineering at **Netaji Subhas Institute of Technology, Bihta Patna** in  
association with **Power Integrated Solutions, Trichy** held from 1<sup>st</sup>  
March to 6<sup>th</sup> March 2019.

Date: 6/3/19

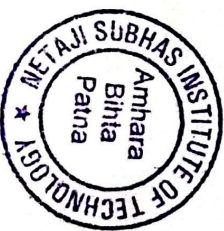
Managing Director

Power Integrated Solutions



HOD

EEE, NSIT



Director

Director

Netaji Subhas Institute of Technology  
Amhara, Bihta, Patna, Bihar

PIN-801106



## A ONE WEEK WORKSHOP

On

## MATLAB Based Power Electronics and its Drive

### Organized by

Department of Electrical and Electronics Engg  
Netaji Subhas Institute of Technology  
Approved by AICTE and Affiliated to AKU, Patna



1<sup>st</sup> Oct to 8<sup>th</sup> Oct, 2018

### Cheif Patron

Mr. M. M. Singh, Founder Secretary, NSIT

### Patron

Mr. Krishna Murari, Registrar, NSIT

### Convenor

Dr. J. Dalei, HOD,EEE,NSIT

Mr. Rajani Ranjan, HOD,ECE, NSIT

### Coordinators

Mr. Ashish Kumar, NSIT Patna

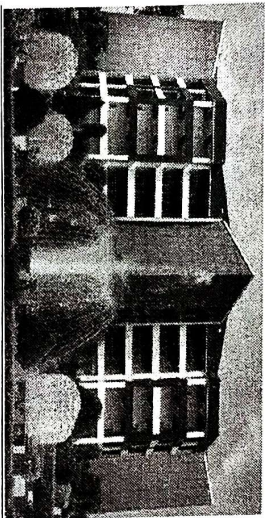
Mr. Amarjeet Kumar, NSIT Patna

Mr. P. D. Nayak, NSIT Patna

### Resource Person

Mathan Kumar M, Director  
Power Integrated Solutions, Tamilnadu

### ABOUT NSIT BIHTA, PATNA



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### ABOUT DEPARTMENT OF EEE

The Department of EEE has a team of well qualified, experienced and dedicated faculty members with rich academic, industrial and research background. The department is fully equipped with modern electronics equipment systems with latest software. The EEE has the intake of 120 students and approved by AICTE and affiliated to AKU, Patna

### DEPARTMENT VISION

To produce Electrical Engineers with energetic well rounded personalities flexible to cope escalating demands of budding technologies concerning analytical and practical skills.

### DEPARTMENT MISSION

- ❖ To extend the department as a prominent academic centre of learning in the discipline of electrical engineering.

- ❖ To set up research and development hub of status so as to promote active participation with industry by staff and students to take on practical problems of industry and to provide feasible solutions.
- ❖ To develop simple, suitable technologies, this will be helpful in the up-liftment of rural society.

### OBJECTIVE

The course will focus on introduction to various power electronic systems, software tools for the design & implementation of various control methods. The program will also include case studies and will discuss practical aspects needed for the implementation of control of power electronic systems.

### WORKSHOP CONTENTS

- ❖ Power Electronic Systems
- ❖ Control of Power Electronic Converter(PEC)
- ❖ Design of Power Electronic Systems
- ❖ Application of Power Electronics in Solar Panel and Wind Power System by Using MATLAB
- ❖ Wireless Power Transfer for Electrical Speed for Vehicle application

### Registration Fee

The participation fees Rs 300/- only

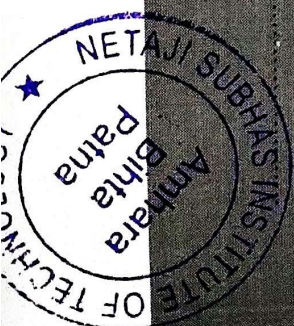
Mode of registration :- Spot

For More Information Contact us on :-

7781020359,9102403261,9102403272

### Registration Form

Name: .....  
Designation: .....  
Organization: .....  
Gender: .....  
Edu. Qualification: .....  
Address: .....  
Mobile Number: .....  
E-Mail: .....







Sl. No: NSIT/B.Tech/2018/

## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

Approved By All India Council for Technical Education (AICTE), New Delhi

(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihta, Patna - 801118 (Bihar)



### Certificate of Participation

This is to certify that Mr. /Ms. **Rajeev Ranjan**

Reg.No. **18110103903**, has successfully completed the one

week workshop/Seminar in "MATLAB Based Power electronics & drive " conducted by the Department of Electrical & Electronics Engineering at

**Netaji Subhas Institute of Technology, Bihta Patna** in association with

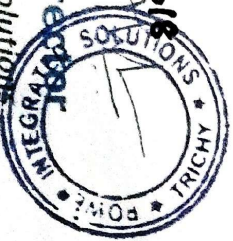
**Power Integrated Solutions, Trichy** held from 1<sup>st</sup> October to 8<sup>th</sup>

October 2018.

Date: **08-Oct-2018**

**Managing Director**

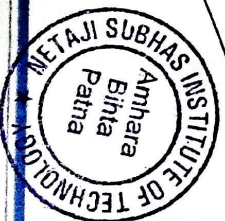
*Power Integrated Solutions*



**HOD**

**EEE, NSIT**

*Stable*



**Director**

**Director**

Netaji Subhas Institute of Technology  
Amhara, Bihta, Patna, Bihar



A ONE WEEK WORKSHOP  
On  
PCB DESIGN AND APPLICATIONS

Organized by  
Department of EEE

Netaji Subhas Institute of Technology  
Approved by AICTE and Affiliated to AKU, Patna



September 18-24, 2019

Cheif Patron

Mr. M. M. Singh, Founder Secretary, NSIT

Patron

Mr. Krishna Murari, Registrar, NSIT

Convenor

Dr. J. Dalei, HOD, EEE, NSIT

Coordinators

Mr. Nishant Kumar, NSIT Patna

Mr. Amarjeet Kumar, NSIT Patna

Resource Person

Mathan Kumar M., Director

Power Integrated Solutions, Tamilnadu

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To produce Electrical Engineers with energetic well rounded personalities flexible to cope escalating demands of budding technologies concerning analytical and practical skills.

To extend the department as a prominent academic centre of learning in the discipline of electrical engineering.

To set up research and development hub of status so as to promote active participation with industry by staff and students to take on practical problems of industry and to provide feasible solutions To develop simple, suitable technologies, this will be helpful in up-liftment of rural society.

**OBJECTIVE**

This is a basic course for designing of PCB using software. PCB (Printed Circuit Board) designing is an integral part of each electronics products and this program is designed to make students capable to design their own projects PCB up to industrial grade.

**WORKSHOP CONTENTS**

- ❖ Introductions to PCB Software
- ❖ Introductions to ALTUM Designer
- ❖ Schematics Design
- ❖ Selecting Components and Creating Libraries.
- ❖ Footprints, 3D Models and Starting a New PCB
- ❖ Variants & BOMs
- ❖ Checking Libraries and Schematics
- ❖ Create a PCB Layout
- ❖ Generating output documentation

**Registration Fee**

The participation fees Rs 1000/- only

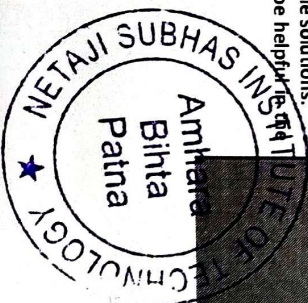
Mode of registration :- Spot

For More Information Contact us on :-

7781020349, 7781020361, 9102403261

**Registration Form**

Name: .....  
Designation: .....  
Organization: .....  
Gender: .....  
Edu. Qualification: .....  
Address: .....  
Mobile Number: .....  
E-Mail: .....







## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

Approved By All India Council for Technical Education (AICTE), New Delhi

(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihata, Patna - 801118 (Bihar)



Sl. No: NSIT/E.Tech/2019/

### Certificate of Participation

This is to certify that Mr. /Ms. *Anu Kumari Pal* .....

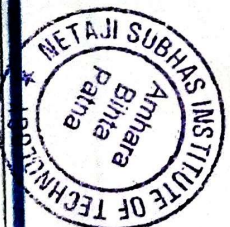
Reg.No. *18104103005* ..... has successfully completed the one week workshop/Seminar in "PCB design & Application" conducted by the Department of Electrical & Electronics Engineering at **Netaji Subhas Institute of Technology, Bihata Patna** in association with **Power Integrated Solutions, Trichy** held from 18<sup>th</sup> Sept to 24<sup>th</sup> Sept. 2019.

Date: *24/09/2019*



**HOD  
EEE, NSIT**

*JSaleh*



**Director  
NSIT**

*S. Sankar*





## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

Approved By All India Council for Technical Education (AICTE), New Delhi

(Affiliated to Aryabhata Knowledge University, Patna)

Amhara, Bihta, Patna - 801118 (Bihar)



Sl. No: NSIT/B.Tech/2019/

### Certificate of Participation

This is to certify that Mr. /Ms. **Deepak Kumar Yadav**

Reg.No. **18110103016** has successfully completed the one

week workshop/Seminar in "PCB design & Application" conducted by the  
Department of Electrical & Electronics Engineering at **Netaji Subhas**  
**Institute of Technology, Bihta Patna** in association with **Power**

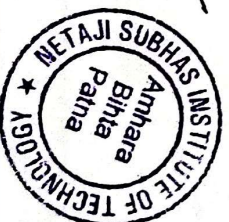
**Integrated Solutions, Trichy** held from 18<sup>th</sup> Sept to 24<sup>th</sup> Sept. 2019.

Date: **24/09/2019**



HOD  
EEE, NSIT

*Trichy*



Director  
NSIT

*Amhara*

Netaji Subhas Institute of Technology  
Amhara, Bihta, Patna, Bihar  
PIN-801106





# Netaji Subhas Institute of Technology

Approved by AICTE and Affiliated to AKU, Patna

Organized by Electrical and Electronics Engg.

*One week workshop on PV Based Renewable Energy and its Applications*

Date: 16<sup>th</sup> April 2023 to 21<sup>st</sup> April 2023

## PV-BASED RENEWABLE ENERGY AND APPLICATIONS.

### Workshop Modules:

**DAY 1**

- INTRODUCTION TO RE.
- TYPES OF RE.
- SERIES & PARALLEL PV PANEL COMBINATION.
- OPEN & SHORT CIRCUIT TEST ON PV PANEL.

**DAY 2**

- PV PANEL MANUFACTURING PROCESS.
- PV CELLS TEMPERATURE, ANGLE AND SHADOW DUST MEASUREMENT.

**DAY 3**

- DESIGN OF BUCK CONVERTER WITH PV PANEL DISTRIBUTION SYSTEM.
- DESIGN OF BOOST CONVERTER WITH PV PANEL DISTRIBUTION SYSTEM.

**DAY 4**

- DESIGN OF PROTOTYPE PV INVERTER.
- DESIGN OF SOLAR EMERGENCY POWER BANK.

**DAY 5**

- CALCULATION OF BATTERY AFTER LOAD HOUR.
- CHOICE OF SELECTION OF MATERIAL.
- DESIGN OF SOLAR STREET LIGHTS.

### Coordinators

Mr. Ritesh Kumar, HOD EEE, NSIT

Mr. Deepak Kumar, EEE, NSIT

### Convenor

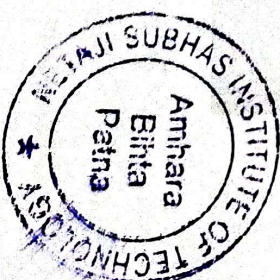
Dr. J. Dalei

Dean Academic, NSIT

### Resource Person

Mathan Kumar M

Director, PIC, Trichy







Sl.No.:NST/B.tech/2023

## NETAJI SUBHAS INSTITUTE OF TECHNOLOGY (NSIT)

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(Affiliated to Bihar Engineering University, Patna)

Amhara, Bihta, Patna-801118 (Bihar)



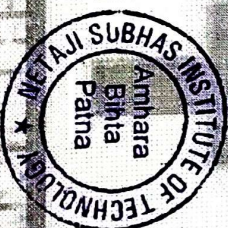
### Certificate of Participation

This is to certify that Mr./Ms. *Tara Kant Maurya* has successfully completed the one week workshop/Seminar in "PV Based Renewable Energy and its Application" conducted by the Department of Electrical & Electronics Engineering at **Netaji Subhas Institute of Technology, Bihta Patna** in association with **Power Integrated Solutions, Trichy** held from 16<sup>th</sup> April to 21<sup>st</sup> April 2023.

Date: *21/04/2023*



*[Signature]*  
HOD  
EEE, NSIT



*[Signature]*  
Director  
NSIT

Netaji Subhas Institute of Technology  
Amhara, Bihta, Patna, Bihar  
PIN-801106



### Organizing Committee

#### **Patron**

Mr. M. M. Singh, Founder Secretary, NSIT  
Mr. Krishna Murari, Registrar, NSIT  
Dr. S. Singh, Director, NSIT

#### **Convener**

Dr. J. Dalei, Dean Academic, NSIT

#### **Coordinators**

Mr. Ritesh Kumar, NSIT Patna  
Mr. Deepak Kumar, NSIT Patna

#### **Organizing Members**

Mr. Nishant Kumar.  
Mrs. Kiran Singh  
Mr. Amarjeet Kumar  
Mr. Agam Kumar

EEE, Department, NSIT BIHTA

### Objective of Workshop

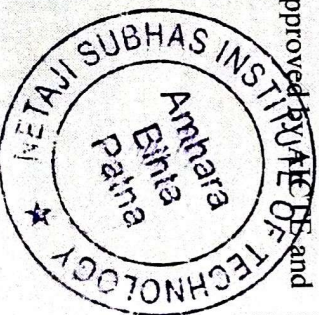
This is a basic course for designing of PCB using software. PCB (Printed Circuit Board) designing is an integral part of each electronics products and this program is designed to make students capable to design their own projects PCB up to industrial grade

### About the Institute

Netaji Subhas Institute of Technology established in 2007, with first batch started in 2008 has its magnificent campus at Amhara in the district of Patna, Bihar. The nearest railway station is Bihta about 2 kilometres from the institute campus and about 25 KM from Patna. A railway junction the state capital and major business and Educational hub of the state. Bihta is the industrial hub and blessings nerve centre of the entire state of Bihar. NSIT, A Degree level Engineering Institute has become a "An effective source of Technocrats to the nation". with its unique infrastructural facilities of 4,00,000 Sq.Ft. of built up area on approximately 18 acres of green lustre land at Amhara, Bihta, Patna, Ambience at the campus serve and Ashram like. The college offers 4 years B.Tech courses in CSE, ECE, EEE, ME and CE.

### About the Department

The Department of EEE has a team of well qualified, experienced and dedicated faculty members with rich academic, industrial and research background. The department is fully equipped with modern electronics equipment systems with latest software. The EEE has the intake of 120 students and approved by AICTE and affiliated to AKU, Patna



### **One Week-Workshop**

on

**PCB Design**



**Date: 25<sup>th</sup> July to 29<sup>th</sup> July, 2023**

**Organized by:**  
**Department of EEE**  
**NSIT Bihta Patna**





## Course Contents

DAY-1	INTRODUCTION TO PCB DESIGN
	APPLICATIONS OF PCB DESIGN
	INTRODUCTION OF ALTIUM DESIGNER
	INSTALLATION OF ALTIUM DESIGNER
	DESIGN OF NEW PROJECT.
DAY-2	SCHEMATICS DESIGN.
	SELECTING COMPONENTS
	CREATING LIBRARIES.
	ANALYSING A FOOTPRINT.
	ANNOTATE ALL THE COMPONENTS.
DAY-3	CREATION OF A PCB LAYOUT.
	DESIGN OF SINGLE AND DOUBLE LAYER.
	ROUTING OF COMPONENTS.
	CREATION OF GERBER AND DRILL FILES.
	CREATION OF BOM.
DAY-4	PROJECTS AND ASSESSMENTS.
DAY-5	

### Vision of Department

To produce Electrical Engineers with energetic well rounded personalities flexible to cope escalating demands of budding technologies concerning analytical and practical skills.

### Mission of Department

- ❖ To extend the department as a prominent academic centre of learning in the discipline of electrical engineering.
- ❖ To set up research and development hub of status so as to promote active participation with industry by staff and students to take on practical problems of industry and to provide feasible solutions.
- ❖ To develop simple, suitable technologies, this will be helpful in the up-liftment of rural society.

### Resource Persons

**Mathan Kumar M, Director**  
**Power Intergrated Solutions, Tamilnadu**

### REGISTRATION

This workshop is open to the faculty members of AICTE/ UGC approved Engineering Institutes/ Universities/ under graduate students.

**The participation fees Rs 300/- only**

**Mode of registration: - Spot**

**For More Information Contact us on:-**  
**7781020361, 7781020349, 9102403262**

## REGISTRATION FORM

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

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Gender: M/F

Area of Work: \_\_\_\_\_

Email: \_\_\_\_\_

Contact no: \_\_\_\_\_

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

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

