KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

Vinjanampadu (V), Vatticherukuru Mandal, Guntur, Andhra Pradesh-522017

(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

Date: 24-09-2022,

To,

The principal,

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES,

Vinjanampadu,

Guntur -17.

Sub: Requisition for Conduction of PCB Design and assembling with fabrication II/I B. Tech –Reg.

Respected Sir,

I bring to your kind notice that III B.Tech., ECE students are interested in doing PCB Design and assembling with fabrication through IETE Students Forum (ISF) & IEEE Students Chapter (ISC). In consultation with the ISF & ISC coordinators it is arranged. The program details as mentioned under.

Program details

Mode : Off-line

Date : 26th September -01st October, 2022

Duration : 6 hrs./day

Title : PCB Design and assembling with fabrication

Resource Person: M.Purna Kishore(Professor) &

J.Sai Ram(Assistant Professor)

In this connection, I am requesting you to provide permission for conducting the program.

Thanking You,

Yours Sincerely,

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

Vinjanampadu (V), Vatticherukuru Mandal, Guntur, Andhra Pradesh-522017

(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

Date:24-09-2022,

To,

The principal,

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES,

Vinjanampadu,

Guntur -17.

Sub: Requisition for food and accommodation for resource person –Reg.

Respected Sir,

I bring to your kind notice that the department conducting PCB Design and assembling with fabrication workshop for II B.Tech., ECE students through IETE Students Forum (ISF) & IEEE Students Chapter (ISC).

In Consolation with college coordinator and ISF & ISC coordinators it is arranged during 26th September- 1st o c t o b e r , 2022.

In this connection, I am requesting you to provide food and accommodation for t h e trainers.

Thanking You,

Yours Sincerely

HOD - ECE

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

Vinjanampadu(V), Vatticheruku Mandal, Guntur, Andhra Pradesh – 522017
(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

DATE:24-09-2022

PCB Design and assembling with fabrication

INFORMATION SHEET (26th september-01st October,2022)

Class: II Year-I Sem

Speaker Names with qualification & designation:

1. Dr. M. Purna Kishore, Professor.
2. Mr. J. Sai Ram, Asst. Professor.

Topics Covered:

On 2 6 -09-2022: Introduction to PCB Design

On 2 7 -09-2022: PCB Fabrication Process

On 2 8 -09-2022: PCB Assembly Techniques

On 2 9 -09-2022: PCB Design for Signal Integrity and Power Integrity

On 3 0 -09-2022: PCB Design for EMI/EMC Compliance

On 0 1 -10-2022: PCB Design for Thermal Management

Signatures of Resource Person **HOD, ECE**

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

Vinjanampadu (V), Vatticherukuru Mandal, Guntur, Andhra Pradesh-522017

(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

A One-Week Workshop on PCB Design and assembling with fabrication
26th september-01st october 2022

Conducted by ECE Dept, in association with **IETE Students Forum (ISF) & IEEE Students Chapter (ISC).**

The Department of ECE organizes One Week offline workshop on "**PCB Design and assembling with fabrication"** from **26th september-01st October 2022** by IETE Students Forum (ISF) & IEEE Students Chapter (ISC).

Printed Circuit Boards (PCBs) are the fundamental building blocks of modern electronics. They serve as the platform for interconnecting electronic components, enabling the flow of electrical signals and power. The design of a PCB is a complex process that involves translating a schematic diagram into a physical layout. This layout specifies the placement of components and the routing of electrical traces on the board. Careful consideration must be given to factors such as signal integrity, power integrity, thermal management, and electromagnetic interference (EMI) to ensure optimal performance and reliability.

The Fabrication Process: Transforming Design into Reality

Once the PCB design is finalized, it undergoes a series of fabrication processes to transform it into a physical product. The fabrication process typically involves the following steps:

1. **PCB Fabrication:** The design is transferred onto a copper-clad laminate, which is then etched to form the desired circuit pattern. Drilling holes for component placement and plating the copper traces complete the fabrication process.
2. **Component Placement:** Electronic components, such as resistors, capacitors, integrated circuits, and connectors, are carefully placed on the PCB according to the design layout.
3. **Soldering:** The components are soldered to the PCB using either manual or automated techniques. Soldering ensures electrical connections between components and the PCB.
4. **Assembly and Testing:** The assembled PCB undergoes rigorous testing to verify its functionality and adherence to design specifications. This may involve electrical tests, functional tests, and environmental tests.

The Importance of Quality and Precision

The quality and precision of PCB design, assembly, and fabrication are critical to the overall performance and reliability of electronic devices. Any errors or defects in these processes can lead to malfunctions, failures, and costly rework. Therefore, it is essential to adhere to strict quality control standards and utilize advanced manufacturing techniques. By understanding the intricacies of PCB design and fabrication, engineers and technicians can create high-quality PCBs that meet the demands of modern electronics.

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES

Vinjanampadu (V), Vatticherukuru Mandal, Guntur, Andhra Pradesh-522017

(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING

WORKSHOP FEEDBACK FORM

1. **Name of the speaker :**
2. **Company/Organization :** KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES
3. **Program :** PCB Design and assembling with fabrication
4. **Name of the student :**
5. **Roll No :**
6. **Date: 26-09-2022 to 01-10-2022**

As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of completely and confidentially. Your interest in making our institution better is greatly appreciated. For each item please indicate your level of satisfaction with the following statement by choosing between 1 and 3. **(3- Excellent 2- Good 1- Satisfactory)**

S.NO	Particulars	Yes/No	Excellent (3)	Good (2)	Satisfactory (1)
1	Your perception of his/her Knowledge				
2	Communication skills				
3	Do you feel the guest lecture was your curriculum related				
4	Do you feel the guest lecture was related to advanced technology				
5	Ability to make the subject relevant to profession and society				
6	Are you willing to participate in more no of sessions				
7	Do you feel the lecture was Interesting				
8	Overall Opinion				

Signature of the Student