LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

REPORT ON "Three Day workshop on PCB Design"

Event Type : Workshop

Date / Duration : 01.03.2021 to 03.03.2021 /Three days

Resource Person : 1.Mr.C.Sudhakar Reddy – SRC e solutions
2.Mr.P.S.Satya Kumar – SRC e solutions

Name of Coordinator : Dr.G.L.N.Murthy

Target Audience : III Semester B.Tech Students

Total no of Participants: III Semester Students-210 Nos.

Objective of the event: To expose the students to usage of modern tools in the design & development of Electronic systems.

Outcome of event : By attending the workshop, the students can be able to perform Mini as well as Major projects, as part of the curriculum. Further, the students will gain knowledge on hardware design related issues that enables them to face interviews confidently.

Description / Report on Event:

The three day workshop began with inaugural address by Dr.Y.Amar babu, Head , Department of ECE ,who highlighted the significance of the training. It was mentioned that the students should be equipped with additional knowledge to face the competitive world. Instead of always restricted to curricular knowledge , students should also enhance their skills in the emerging areas , as told by the head of the department. It was told that earlier it a practice to conduct the workshop for all the sections together. But, this time because of Covid – 19 , the event is organized section wise. Dr.G.L.N.Murthy have explained the students about various activities that are being conducted by Reconfigurable computing club. All the students are advised to actively participate in such events and enhance their skills. In the first session, resource person Mr.C. Sudhakar Reddy presented the keynote of the program and asked the students to effectively utilize the same.

All the students were explained about the significance of PCB design and the steps in the design process. The layout and the interconnects should be optimally planned that results in such a board

where there exist no problems in near future. A printed circuit board (PCB) mechanically supports and electrically connects electronic components or electrical components using conductive tracks, pads and other features etched from one or more sheet layers of copper laminated onto and/or between sheet layers of a nonconductive substrate. Components are generally soldered onto the PCB to both electrically connect and mechanically fasten them to it. Printed circuit boards are used in all but the simplest electronic products. They are also used in some electrical products, such as passive switch boxes.

In session two, all the students were taken to Systems and Signal processing laboratory for simulating the PCB design process. All the students have practiced proteus software that is used for electronic circuit simulation. The Proteus Design Suite is a proprietary software tool suite used primarily for electronic design automation. The software is used mainly by electronic design engineers and technicians to create schematics and electronic prints for manufacturing printed circuit boards

In the last session students have been taken to ECE seminar hall for prototyping of circuits they have simulated. All the students grouped in batch of two, have exposed to hands on practice on various steps in the circuit preparation. Mr.P.S.Satya Kumar from SRC e solutions have assisted the resource person during simulation and practice sessions.On each day same schedule is followed.

Feedback / Suggestions :

1. Practical session time should be more
2. More number of circuits should be practiced
3. Simple circuit has been introduced and practiced
4. Individual designs might have been practiced instead of one common design.
5. Insufficient time
6. The design circuit given is common to all. Indeed, it might have been different.
7. Explanation should be more clear and practical oriented.

Comments on feedback:

1. The event is conducted during Covid-19 pandemic situation. Due to which each section is given one day only. If two days are given , other academic activities like completion of syllabus and conducting of internal lab exams will be affected. However, when such events are organized next time, duration will be increased.
2. As this event has been conducted for the first time for second year students, only basic circuits have been practiced to reduce the time duration.
3. Next time onwards , the duration for theory session will be optimally reduced to emphasize more on hands on session.

Photographs :

Addressing by Dr.Y.Amar Babu, Head , Department of ECE

Addressing by Dr.G.L.N.Murthy, Incharge ,reconfigurable computing club

Addressing by Sri.C.Sudhakar Reddy, SRC e solutions, Vijayawada

Simulation sessions on Proteus software

Hands on sessions in ECE seminar Hall

Paper Clippings :

పీసీబీ డిజైన్‌పై ముగిసిన అవగాహన సదస్సు

[illegible]

ప్రోటీన్ సాఫ్ట్‌వేర్‌తో ప్రాజెక్టు డిజైన్‌లు

మైలవరం: ప్రోటీన్ సాఫ్ట్‌వేర్ ద్వారా ప్రాజక్టులలో సర్క్యూట్ డిజైన్‌లు రూపొందించవచ్చని ఎస్ఆర్‌సీ ఈ-సొల్యూషన్స్ ప్రతినిధి సి.సుధాకర్ తెలిపారు. మైలవరం లకిరెడ్డి బాలిరెడ్డి ఇంజినీరింగ్ కళాశాలలో ఎలక్ట్రానిక్స్ అండ్ కమ్యూనికేషన్ విభాగం ఆధ్వర్యంలో ద్వితీయ సంవత్సరం విద్యార్థులకు ప్రింటింగ్ సర్క్యూట్ బోర్డు(పీసీబీ) డిజైన్‌లో గత మూడు రోజులుగా నిర్వహిస్తున్న అవగాహనా సదస్సు బుధవారం ముగిసింది. సదస్సులో సుధాకర్ మాట్లాడుతూ ఈ సిమ్యులేషన్ ఆధారిత డిజైన్‌ను కాపర్ లేయర్ కలిగిన బోర్డుల మీద ప్రింటింగ్ చేసి తమ ప్రాజక్టులకు కావాల్సిన ఎలక్ట్రానిక్ పరికరాలు ఆ బోర్డుపై ఏవిధంగా అమర్చుకోవాలో తెలియజేశారు. ప్రాజెక్టుల రూపకల్పన, సిమ్యులేషన్ ఆధారిత డిజైన్ అంశాలు క్షుణ్ణంగా తెలియజేశారు. ఈసీఈ విభాగాధిపతి అమర్‌బాబు మాట్లాడుతూ తమ కళాశాలలో పాఠ్యాంశాలతో పాటు వివిధ రకాల సర్టిఫికేషన్ కోర్సులు నిర్వహిస్తున్నామన్నారు. కార్యక్రమానికి రీకాన్ఫిగరబుల్ కంప్యూటింగ్ క్లబ్ ఇన్‌చార్జి డాక్టర్ జీఎల్ఎస్ మూర్తి కో-ఆర్డినేటర్‌గా వ్యవహరించారు.

సాక్షి 4/3/21