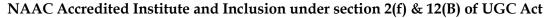


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A TWO WEEK WORKSHOP

ON

PCB DESIGN

(10th March, 2022 to 23rd March, 2022)

Organized by

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEEERING

In association with

Andhra Pradesh State Skill Development Corporation (APSSDC)

Resource Persons: 1. Mr.I.Ravi Kumar, Technical Skill Trainee-APSSDC.

2. Mr. Y. Madhu Vamsi, Technical Skill Trainee - APSSDC.

Convenor : Dr.P.Poorna Priya, Assoc Prof, CSE, DIET, Anakapalle.

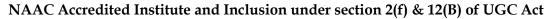
Faculty Coordinators: 1. Mrs. Archana B T, Assistant Professor, E.C.E Department.

2. Mrs.P.Amrutha, Assistant Professor, E.C.E Department.

Venue : Laboratory 1 and AC/DC Lab , DIET .



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Report on Workshop

The Department of Electronics and Communication Engineering of DIET, in association with Andhra Pradesh State Skill Development Corporation (APSSDC) has organized a Two Week workshop on "PCB DESIGN" for II B.Tech ECE Students during 10-03-2022 to 23-03-2022. The main aim of workshop is to develop the practical knowledge of students in advanced PCB software's and to design the multiple circuits. The workshop was aimed to provide knowledge about Complete PCB Designing using simulation tool to test electronics & electrical circuit in software environment.

About PCB:

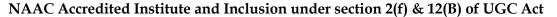
A **Printed Circuit Board (PCB)** mechanically supports and electrically connects electronic or electrical components using conductive tracks , pads and other features etched from one or more sheet layers of copper laminated onto and / or between sheet layers of a non-conductive substrate . Components are generally soldered onto the PCB to both electrically connect and mechanically fasten them to it and point-to-point construction . PCBs require additional design effort to layout the circuit, but manufacturing and assembly can be automated. Printed circuit boards are used in all the electronic products. They are also used in electrical products, such as passive switch boxes .

Objectives of Workshop:

- Design a PCB as per design input.
- Understand the steps and processes involved in PCB manufacturing.
- Develop the schematics of circuit using industry grade software.



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Inauguration:

The inauguration of the workshop was conducted in the Seminar Hall 2, DIET Campus on 10-03-2012 at 9.30 AM with a prayer song . The dignitaries of the Inaugural Function includes , **Dr.Challa Narsimham, Principal ,Dr.L.Prasanna Kumar,Skill Coordinator Dr.P.Poorna Priya**, HoD-ECE & Workshop Convenor and resource persons **Mr.I.Ravi Kumar,** Electronics Engineer-**APSSDC**, **Mr.Y.Madhu Vamsi,** Electronics Engineer-**APSSDC**. The HoD's of other departments, E.C.E Department faculty members and 93 students from II B.Tech ECE Department have participated in the inaugural function . The Welcome speech was given by students Ms.P.Syama of II B.Tech ECE.

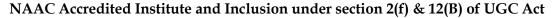


II ECE students attending inauguration

Dignitaries on Dais



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Dr.P.Poorna Priya, H.O.D, E.C.E, addressing the gathering.

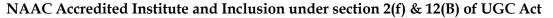
Dr.P.Poorna Priya, H.O.D, E.C.E Department, have given the opening remarks about the workshop. She has addressed all the student participants to make use of this workshop and improve their practical knowledge.



Dr. Challa Narsimham, Principal - DIET, addressing the gathering.



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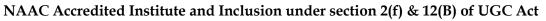
Principal Dr. Challa Narsimham, addressed the students about workshop and importance of APSSDC. He said that, it is an opportunity for all the II B.Tech ECE students to learn different PCB Softwares. Apart from theoretical knowledge, practical knowledge is also very important for Engineering students. So, he has suggested all the students to make use of this 2 week workshop effectively.



Dr. L.Prasanna Kumar,Institute level Skill Coordinator briefed the students about workshop and its importance for their career development.



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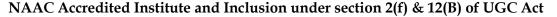




Presented vote of thanks by Ms.P.Syama, for Inaugural function.



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Day Wise Program Details

Day-1: Workshop on "PCB DESIGN" - DIET – 10th March 2022/17th March 2022

Resource Persons: Mr.B.Suresh Kumar Electronics Engineer-APSSDC and Mr.Ch.Santhosh, Electronics Engineer-APSSDC

Topics covered: Introduction to PCB and Software

Mr.I.Ravi Kumar, in the Forenoon Session started with introduction of PCB Designing, layouts, benefits of the workshop and its applications. He has explained about Schematic Design of a demo Circuit and pointers to make precise schematic design from 11.00 AM to 12.30 PM.

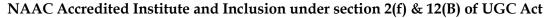
Mr.Y.Madhu Vamsi has explained about the types of software's and their usage 1) Live wire and 2) PCB wizard. All the 93 participants designed basic circuits by using Live Wire software from 01.00 PM-04.00 PM.



Introduction to PCB Design



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Explained how to use live software for designing ciruits

Day-2: Workshop on "PCB DESIGN" - DIET – 11th March 2022/18th March 2022

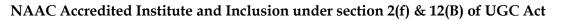
Resource Persons: Mr.I.Ravi Kumar, Technical skill Trainee - APSSDC

Topics covered: Rectifiers, 555 timer and LED circuits

Mr. .I.Ravi Kumar, explained how to design different types of rectifiers, 555timer and LED circuits by using Live wire software.



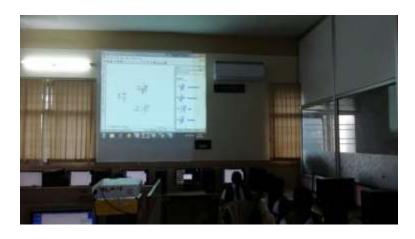
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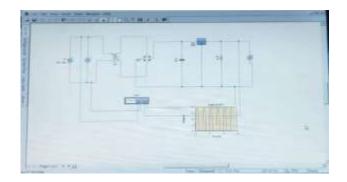
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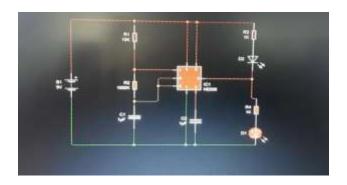
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Placing the components on the schematic window





Designed few circuits by using live wire software



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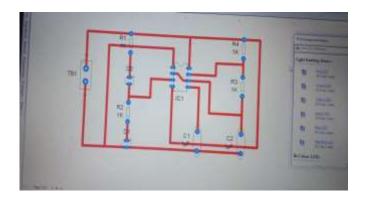


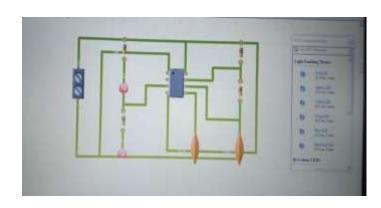
Day-3: Workshop on "PCB DESIGN" - DIET – 12th March 2022/19th March 2022

Resource Persons: Mr.Y.Madhu Vamsi, Technical Skill Trainee-APSSDC

Topics covered: Design of electronic die, Motor and Seven segment display circuits etc.

Mr. Y.Madhu Vamsi explained how to design electronic die, motor and seven segment display by using Live Wire software from 09.00 AM to 04.00 PM. All the participants designed so many circuits and tested by simulating the circuits by changing the voltage values.





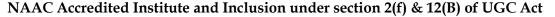
Simulation of circuits

Day-4: Workshop on "PCB DESIGN" - DIET – 13th March 2022/20th March 2022

Resource Persons: Mr. Y.Madhu Vamsi, Technical Skill Trainee -APSSDC



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Topics covered: Layout design by using PCB wizard software.

Mr. Y.Madhu Vamsi explained how to create symbolic representation of circuits (schematic diagram), searching, loading and placing of components, Wiring connections between components, Updating component information in PCB layout (Auto packaging), Entering Page Notes and Saving the circuit from 09:00 AM to 12:30 PM.

He has explained about the layout design with auto routing and manual routing directly from 01.30 PM to 04.00 PM. All the participants designed layouts by using PCB Wizard software for the circuits which were designed by using Live wire software by hands on experience in the laboratory.



Explaining how to draw layout for circuits by manual and automatic routing using PCB Wizard software



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Day-5: Workshop on "PCB DESIGN" - DIET – 14th March 2022/21st March 2022

Resource Persons: Mr.I.Ravi Kumar Kumar, Technical Skill Trainee-APSSDC

Topics covered: layout design by using PCB wizard software.

Mr. I.Ravi Kumar continued the layout design for remaining circuits with auto routing and manual routing directly from 09.00 AM to 4.00 PM. All the 93 participants designed layouts for all the circuits which were designed by using Live wire software in lab 1 & lab 2.



Students having hands on experience

Day-6: Workshop on "PCB DESIGN" - DIET – 15th March 2022,22nd March 2022



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Resource Persons: Mr.I.Ravi Kumar Technical Skill Trainee -APSSDC and Mr.Y.Madhu Vamsi, Technical Skill Trainee -APSSDC

Topics covered: Online Simulation by using Easy EDA software.

Mr.I.Ravi Kumar, has given a detailed introduction for online simulation by using Easy EDA software and how to simulate and test the circuits in lab 1 & lab 2 from 11.00 AM to 12.30 PM.

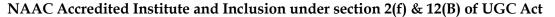
Mr.Y.Madhu Vamsi, has explained about the design of 16 segment display by using Easy EDA software from 01.30 PM to 04.00 PM.



Explaining the usage of Easy EDA Software



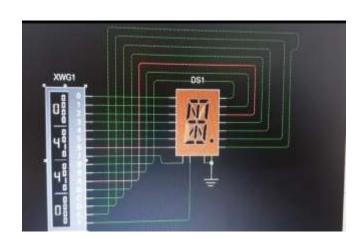
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Designed 16 segment display by using Easy EDA Software

Outcome of workshop:

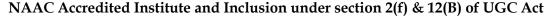
All the 93 participants effectively utilized the workshop and learned about PCB related softwares for designing different electronic circuits.

Now all the participants are able to:

- > Design circuits by using Live Wire Software.
- > Design circuits by using PCB Wizard Software.
- > Design circuits by using Easy EDA Software.



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Feedback from students:

After attending this workshop students have expressed their views as follows:

- In 2nd year itself we all got an opportunity to participate in workshop which is conducted on PCB design in association with Andhra Pradesh State Skill Development Corporation (APSSDC).
- We all have learned the basics of PCB, different types of PCB software to design circuits.
- It's very interesting for all the 6 days.
- It is a very good experience for us in experiencing the hands on experience.

I would like to thank our honourable Chairman, Sri Dadi Ratnakar garu, for his continuous cooperation and support for conducting this workshop.

I would like to thank our beloved principal, Dr.Challa Narsimham for his encouragement in all aspects for conducting industry based workshops .

I would like to thank Vice-Principal - DIET , A.O , All the Departmental HOD's , Faculty coordinators , Student coordinators , ECE department teaching and non-teaching faculty members , Admin staff who knowingly and unknowingly helped in all aspects for making this workshop a grand success.



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List of participants

| S.No. | HT.No | StudentName |
|-------|------------|-------------------------------|
| 1 | 20U41A0401 | ADARI YASHWANTHINI |
| 2 | 20U41A0402 | BODDAPATI MEGHANA |
| 3 | 20U41A0403 | MODE DEEPTHI |
| 4 | 20U41A0405 | MATHALA VIJAYA |
| 5 | 20U41A0406 | CHATTI DIVYA |
| 6 | 20U41A0407 | ALLU ROOPA DEVI |
| 7 | 20U41A0408 | KANDREGULA SANJANA |
| 8 | 20U41A0409 | KARANAM AKHIL |
| 9 | 20U41A0410 | VIYYAPU LOKESH |
| 10 | 20U41A0411 | BANDARU AKHILA |
| 11 | 20U41A0412 | VARRE ROHITH |
| 12 | 20U41A0413 | YERUKULA SRIRAM SAI KUMAR |
| 13 | 20U41A0414 | KASIREDDY SHYAM SAMPATH KUMAR |
| 14 | 20U41A0415 | PADALA PREETHI |
| 15 | 20U41A0416 | APPANA PREM VASANTH KUMAR |
| 16 | 20U41A0417 | ALAJANGI BARGAVI |
| 17 | 20U41A0418 | TAMARANA RAMA GANESH |
| 18 | 20U41A0419 | KONATHALA DIVYASREE |
| 19 | 20U41A0420 | KONCHADA REVANTH |
| 20 | 20U41A0421 | ADARI KUSUMA |
| 21 | 20U41A0422 | SARAGADAM PARNITHA |
| 22 | 20U41A0423 | GANTA SUNIL KUMAR |
| 23 | 20U41A0424 | DANNINA NAVYA |
| 24 | 20U41A0425 | BOTTA BHANU LOKESH |
| 25 | 20U41A0426 | MADETI NAVEENA |
| 26 | 20U41A0427 | ADARI PRUDHVI |
| 27 | 20U41A0428 | NEMALAPURI PRAVEEN KUMAR |
| 28 | 20U41A0429 | AMPOLU SAI TEJA |



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| 29 | 20U41A0430 | MAMIDI MOUNIKA |
|----|------------|----------------------------|
| 30 | 20U41A0431 | RANGU RAJASHEKAR |
| 31 | 20U41A0432 | BALAJI VEYYIDHALAMULA |
| 32 | 20U41A0433 | ATHOTA DINESH RAJ |
| 33 | 20U41A0434 | KARANAM AJITH KUMAR |
| 34 | 20U41A0436 | PITHANI MURARI |
| 35 | 20U41A0437 | VIYYAPU MOUNIKA SAI |
| 36 | 20U41A0438 | PATNALA DEEPAK |
| 37 | 20U41A0439 | TULAGAPU VINAY |
| 38 | 20U41A0440 | PALLA ROHIT |
| 39 | 20U41A0441 | BESETTI NANI AVINASH RATNA |
| 40 | 20U41A0442 | GALLA VAHINI KRISHNA |
| 41 | 20U41A0443 | MOYYA SAIMANIKANTA |
| 42 | 20U41A0444 | DATTI SHANMUKHA NAIDU |
| 43 | 20U41A0445 | BODDEDA KUSUMA |
| 44 | 20U41A0446 | KARUKONDA SHIVA NAGA SAI |
| | | ABHISHEK |
| 45 | 20U41A0447 | KONATHALA MANOJ BABU |
| 46 | 20U41A0448 | SIDDANATHI LEELADHAR |
| 47 | 20U41A0449 | PYLA SIVA DURGA MANI TEJA |
| 48 | 20U41A0450 | NANDANA SAI KUMAR GOUD |
| 49 | 20U41A0451 | TENTU PRATYUSHA |
| 50 | 20U41A0452 | LAKKOJU VEERENDRA SAI |
| 51 | 20U41A0453 | TATTIKOTA RAMYA |
| 52 | 20U41A0454 | TALARI SANDHYA SRI |
| 53 | 20U41A0455 | P. V. SATYANARAYANA REDDY |
| 54 | 20U41A0456 | BONDA MOHAN KIRAN |
| 55 | 20U41A0457 | MD HASSAIN AKRAM |
| 56 | 20U41A0458 | PUTREVU JAI DEEP |
| 57 | 20U41A0459 | BANDARU JYOTSNA |
| 58 | 20U41A0460 | KANTREDDY LIKHITH |



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| 59 | 20U41A0461 | PATINA SHANKAR YASHWANTH |
|----|------------|---------------------------|
| 60 | 20U41A0462 | KOTYADA SAI ESWAR |
| 61 | 20U41A0463 | MEDIBOYINA VAMSI |
| 62 | 20U41A0464 | KOTAPADU SRINU |
| 63 | 20U41A0465 | GANISETTI POORNA CHANDRA |
| 64 | 20U41A0466 | VEGI MANI KISHOR |
| 65 | 20U41A0467 | JANAPATI SESHA SAI MONIKA |
| 66 | 20U41A0468 | KOIDALA NIKIL |
| 67 | 20U41A0469 | RAVI JAYANTHI |
| 68 | 20U41A0470 | BUDDHA JYOTSNA |
| 69 | 20U41A0471 | CHANDAKA KIRAN KUMAR |
| 70 | 20U41A0472 | MARADUPUDI PRANUSHA |
| 71 | 20U41A0473 | PEMMADA SYAMA |
| 72 | 20U41A0474 | BODDEDA SYAMJAY MADHAV |
| 73 | 21U45A0401 | BANDARU JAYANTH |
| 74 | 21U45A0402 | DADI DALYA RAM |
| 75 | 21U45A0404 | G. HEMANTH SATEESH KUMAR |
| 76 | 21U45A0405 | BHEESETTI JHANSI |
| 77 | 21U45A0406 | YELUSURI JANARDHAN |
| 78 | 21U45A0407 | GORLI SYAMALA |
| 79 | 21U45A0408 | GORLI POORNIMA |
| 80 | 21U45A0409 | BAMMIDI AKHILA |
| 81 | 21U45A0410 | DASARI GAYATRI |
| 82 | 21U45A0411 | MEDAPATI AMBICA JAYASRI |
| 83 | 21U45A0412 | POTHABATTULA KARTIK |
| 84 | 21U45A0413 | KANDREGULA VAMSI |
| 85 | 21U45A0414 | T. VAMSI SAI RAMA KRISHNA |
| 86 | 21U45A0415 | VUDI NAGENDRA |
| 87 | 21U45A0416 | A. SOMA SAI SATISH |
| 88 | 21U45A0417 | KOSURU SUMITHRA |
| 89 | 21U45A0418 | VANKAYALA SIVA KRISHNA |



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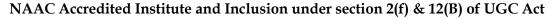
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| | 90 | 21U45A0419 | EERE MANOHAR |
|---|----|------------|---------------------|
| Ī | 91 | 21U45A0420 | NAVARA SHALINI |
| | 92 | 21U45A0421 | PALLELA KALYAN |
| Ī | 93 | 21U45A0422 | YEDIRI HARISH KUMAR |





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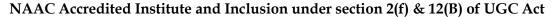




Student giving feedback on Workshop at Valedictory on 24th March, 2022



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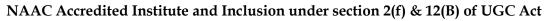




Group photo with Convener, Principal, Resource persons, Faculty and Participants.



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అనకాపల్లి, జిల్లా వాణి ప్రతినిధి

పట్టణంలోని దాడి ఇన్బిట్యూట్ ఆఫ్ ఇంజనీరింగ్ అండ్ టెక్నాలజీ కళా శాలలో ఈసిఈ విభాగం విద్యార్థులకు వారి సాంకేతిక నైపుణ్యం

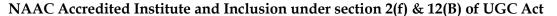


పెంపొందించుకునేందుకు నిర్వహించిన పిసిబి డిజైన్ వర్కేషాప్ శనివా రంతో ముగిసింది. పదిహేను రోజుల పాటు ఎక్కడ ఈ వర్మాప్ను నిర్వహించారు. ఈ వర్మాప్లో సాంకేతిక నిపుణులు ఐ.రవికుమార్, మధు, వంశీ విద్యార్థులకు శీక్షణ ఇచ్చారు. ఈ సందర్భంగా దాడి ఇన్బిట్యూట్ ఇంజనీరింగ్ కళాశాల చైర్మన్ దాడి రత్నాకర్ మాట్లాడుతూ ఇన్బిట్యూట్లో ఇటువంటి శిక్షణలు మరెన్నో నిర్వహిస్తున్నామని అన్నారు. కళాశాల ప్రిన్సి పాల్ డాక్టర్ సిహెచ్ నరసింహం మాట్లాడుతూ ఇటువంటి శిక్షణ వలన విద్యార్థులు ఎన్నో (ప్రయోజనాలతో పాటు నైపుణ్యత కూడా ఎంతో పెరుగుతుందని తెలిపారు. ఈ కార్యక్రమంలో ఈసిఈ హెచ్ఓడి డాక్టర్ పూర్డ (ప్రియా, (ప్రసన్నకుమార్ మరియు విద్యార్థులు పాల్గొన్నారు.

Paper Clippings of 6-Day Workshop on PCB Design in DIET



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)



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Invitation for PCB Design Workshop



R & D Convenor

