



SIDDHARTHA

INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUH)
Vinobha Nagar, Ibrahimpatnam, Ranga Reddy Dist - 501 506, Telangana, INDIA
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PROJECT BASED LEARNING

- **IDEA:** To enhance collaborative, critical and creative skills.
- **IMPLEMENTATION:** To involve students in project based learning
- **OUTCOME:** Students will be able to learn core subjects in an elaborating and practical way

1. Touch sensor using IC 555 Timer

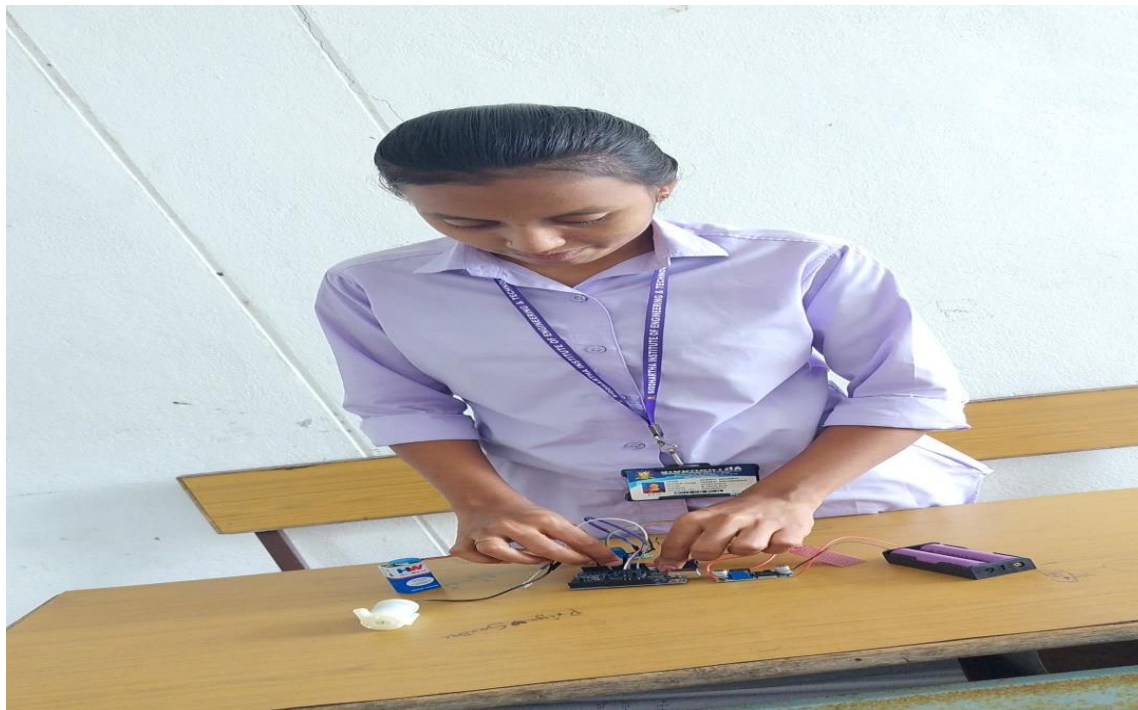
Faculty: Mr. Md Furkhanuddin

Subject: LDICA

Outcome: The students were able to understand the concept of IC555 timer through the mini project.

In this project a touch sensor based switch was implemented using IC 555 timer when the sensor was touched the light turned ON and when the sensor was touched the light was turned OFF.

Through this project students were able to understand the concept of bi-stable multi-vibrator using IC555 timer.





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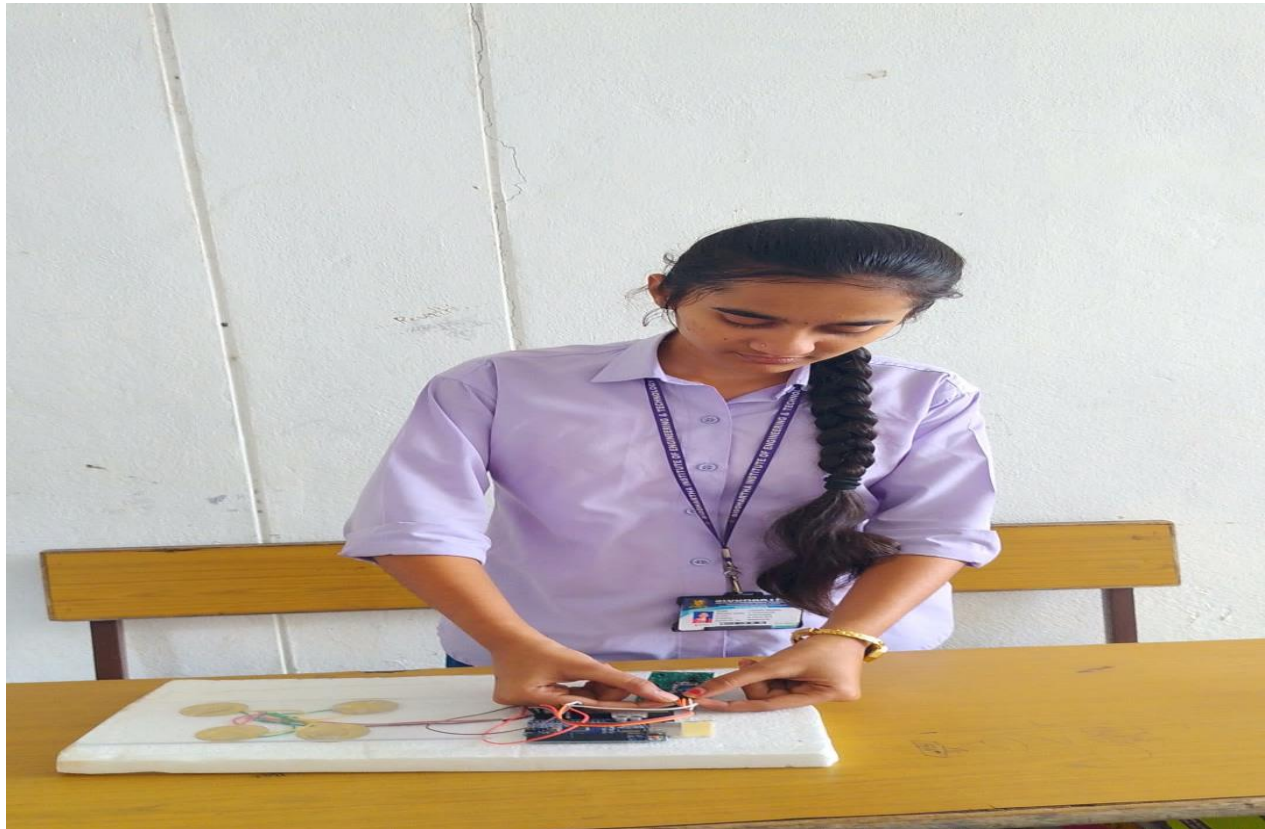
2. Automatic Street Light which works on the Principle of LDR

Faculty: Dr M Pushpalatha

Subject: IOT&A

Outcome: through this project students were able to understand the concept & working of LDR

In this project a LDR was used to sense the light, if the light intensity is below a threshold value then lights were turned ON, and if the light intensity was above the threshold value the was turned OFF.





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3. Automatic Water Pumping Switch using Water level Sensor

Faculty: Dr. M Pushpalatha

Subject IOT&A

Outcome: The students were able to understand the working of sensor & how to use them in the project.

Here a water level sensor was constructed when the water level was blew a specific level the water pump was turned ON & when its above the specif level the water pump was turned OFF





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Think-pair-share (TPS)

Think-pair-share (TPS) is a collaborative learning strategy where students work together to solve a problem or answer a question about an assigned reading.

Faculty: Md Ashraf

Subject: Microprocessor & Microcontrollers **Yr/Sem:** III/I

Outcome: This strategy improves collaborative thinking enhances collective skills

IMPLEMENTATION: In the classroom faculty has to give one question to the student and each student has to solve the question individually and after completion of solving the question student has to pair with one of his/her classmate and discuss each answer. Then one of the students in the class shares his/her thoughts with total class. This strategy requires students to think individually about a topic or answer to a question and share ideas with classmates.

Here students were asked to write a program to find the sum of squares of numbers. student groups were formed students analyzed the problem and wrote the solution program. The students shared the correct solution with entire class.





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Role play

Faculty: Md Furkhanuddin

Subject: LDIC&A

Topic: Low pass Filter

IDEA: Students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment.

IMPLEMENTATION: Some students are selected randomly. Each student is assigned a particular frequency. One student is selected to act as a low pass filter with particular cutoff frequency. He is made to stand at the door of classroom. Students come one by one. The student with frequency less than cutoff frequency is only allowed to enter the classroom. The other students are blocked at door.

OUTCOME: This helps in understanding of topic quickly





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EXCLUSIVE VIDEOS COLLECTION AND DISPLAY FOR SUBJECTS

The video following video lectures were collected faculty for displaying to students which increased the understanding of subject.

- **Subject:**EDC

Faculty: Mrs.M Vasantha

Topic:Bridge Rectifier Year/Sem:I/II

Video link:https://www.youtube.com/results?search_query=bridge+rectifier+animation

- **Subject:**Microprocessor & Microcontrollers

Faculty:Md Ahraf

Topic:PUSH & POP Instructions

Video Link:https://www.youtube.com/watch?v=OcaX_wr3gHE

- **Subject:**Signals & Systems

Faculty: Dr V Bhagya Raju

Topic: DTFT properties problems Year/Sem:II/I

VideoLink:

<https://www.youtube.com/watch?v=IKJuvJGjADY&list=PLBlnK6fEyqRhkN2yGQpH40Pk-paIJzzvv&index=25&pp=iAQB>

- **Subject:**IOT&A

Faculty:Dr.M Pushpalatha

Topic:Introduction to Raspberri Pi Year/Sem:III/I

Video Link:<https://www.youtube.com/watch?v=s2AKMERnBhQ>



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CONCEPTUAL QUIZ BY GOOGLE FORM

IDEA: To Enhance Conceptual Student performance.

IMPLEMENTATION: After completion of each unit faculty will create a Google form which contains Concept oriented questions and Problems related to topics from respective unit & the link will be shared in the student group.

OUTCOME: Student will be able to revise each particular unit.

The following faculty implemented the CONCEPTUAL QUIZ BY GOOGLE FORM

1. **Faculty:** Dr. T Krishnarajuna Rao
Subject: Microcontrollers **Year/Sem:** III/I
2. **Faculty:** Mrs. R Suneetha
Subject: Control Systems **Year/Sem:** III/I