Department of Electronics Communication and Instrumentation Engineering (ECIE)

UG Programme – B. Tech. (ECIE PG Programme –M. Tech. (EV)

Report

on

"SUMSHODINI '24"

18-19 October 2024



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL – 15

(An Autonomous Institute under Kakatiya University, Warangal)

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE Opp: Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.

काकतीय प्रैद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०१५ तेलंगाना, भारत ತಾಕಲಿಯ ನಾಂತೆರಿಕ ವಿಜ್ಞಾನ ಕಾಸ್ತ್ರ ವಿದ್ಯಾಲಯಂ, ಪರಂಗಶ - ಸಂ೭ ೦೧೫ ತಿಲಂಗಾಡ, ಭಾರತದೆಕಮು

ESIC-1980 (An Autonomous Institute under Kakatiya University, Warangal)

KITSW (Approved by AICIE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

Department of Electronics Communication and Instrumentation **Engineering (ECIE)**

(UG Programmes – B. Tech. (ECIE) $(PG\ Programme - M.Tech.\ (EV))$

ABOUT THE HOST DEPARTMENT:

The Department of Electronics and Instrumentation Engineering (EIE), previously) was established in the year 1981 in Kakatiya Institute of Technology & Science (KITS), Warangal. The institute to its credit is first in the country to offer a B.Tech. programme in Electronics and Instrumentation Engineering stream. Keeping in view of present industry requirements in the area of Embedded systems, IoT and AIML, B. Tech. (ECIE) programme was started in the year 2019. It is an advanced branch of engineering which deals with the application of scientific knowledge in electronics, communication instrumentation and control for automation of processes. The objective of the ECIE programme is to create engineers capable of solving real-world problems which require computation, communication and control by utilizing the most efficient combination of hardware and software. B.Tech. (ECIE) curriculum is designed with a futuristic perspective so that the ECIE students are equipped in advance to tackle any challenge that might arise from the new age industry 4.0 revolution.

Presently, the department is offering B. Tech Programme in ECIE, B.Tech. Programme in Electronics Communication & Instrumentation Engineering. (ECIE), Specialized M. Tech programme in Embedded System & VLSI and Doctoral programme in Ph.D. (ECIE) under Kakatiya University (KU), Warangal. The B. Tech Programme in ECIE has been accredited under TIER-I status by the National Board of Accreditation (NBA), New Delhi.

The students fared well in national level competitive exams like GRE, CAT, GATE, TOFEL etc.., and most of them are pursuing their higher studies in premier and prestigious institutions like IITs, NITs, IIMs and many reputed Universities abroad.

The students of the department conduct various programs in the students Association, "Electronics Communication and Instrumentation Engineering Association (ECIEA)" every week, which is scheduled as a part of academic program. This includes activities like Group discussions, JKC activities, Mock interviews, and many other activities which help students to excel in their soft skills and organizing capabilities.

*** TECHNICAL EVENTS:**

- 1. Workshop on Integrated IOT in multi domain applications
- 2. Treasure Troopers
- 3. Techno Fusion: Game on
- 4. Funovation frenzy
- 5. Tech Odessey
- 6. Quantum Quests
- 7. Electro Expo
- 8. Paper Presentation

One-Day Hands-on Workshop on:

"INTEGRATED IOT IN MULTI DOMAIN APPLICATION"

18.10.2024



As part of Sumshodhini'24, on behalf of the department, the students of B. Tech. (ECIE), and M. Tech. (EV) in association with Teckybot, ISTE student Chapter and Technical Club, KITSW are organized a technical workshop - "INTEGRATED IOT IN MULTI DOMAIN WORKSHOP" on 18th oct 24. The primary objective of the workshop was to provide participants with hands-on experience and address real-world challenges through IOT-based solutions. The workshop covered both hardware and software aspects, allowing participants to gain a comprehensive understanding of the intersection between robotics and mobile technologies.

What will you learn after attending this Workshop:

Here is a small description of our workshop which is conducted on IOT in Multi Domain Applications we have learnt many things about its pros and cons

Here are some applications of IOT

- Traffic Management
- Vehicle Tracking
- Telemedicine
- Healthcare Monitoring

Here we have some disadvantages on IOT in multi domain applications

- Limited Battery Life
- Complexity

We have learnt to simulate and individual parts of each component and description of each part so here;

The students have learnt to assemble the all the sensors and necessary things and learnt its importance of each and every particular part of the robot.

Applications you can make using this kit:

- IOT in Agriculture Field
- IOT in Medical Sector
- IOT in Smart City

Workshop Benefits and & Highlights:

Here as we have mentioned above the particular that how the simulation and assembling of IOT in multi domain applications as it is very expensive, we made sure that every student has done through hands.

And every student has taken a race in our college premises everyone and happy. Everyone has given good response about our workshop. They felt happy and satisfied about the workshop

Contents:

Session 1:

- > Introduction of IOT
- > Application of IOT
- ➤ Model of IOT
- ➤ Node MCU
- > Software for writing code

Session 2:

- > Code selection and development
- > Practical section: assembly of various sensors using various applications and Bluetooth
- Practical section: assembly and connections of Battery system

Registration Fee:

✓ Rs.1000/- per head

Venue:

✓ Block-2, IBM lab

Workshop Student Coordinators:

- ➤ P.Vishal
- Maryam Yasmeen
- > P.Swapnesh
- CH.Shashank
- Ch.Haripriya
- ➤ J.Himajothi
- V.Jayasree

Faculty In charge:

Sri B. Venu Maheswar Rao, Asst. Professor, Dept. of ECIE

Sri. G. Raju, Asst. Professor, Dept. of ECIE

Resource Persons:

Sri N. Venkata Reddy – CEO, Teckybot Pvt. Ltd.

Sri Parthu - Lead Technical Developer at Teckybot

Sri Vijay - Lead Technical Developer at Teckybot

Number of Participants: 50









 $Sri\ N.\ Venkata\ Reddy-CEO,\ Teckybot\ Pvt.\ Ltd.\ is\ addressing\ the\ participants$

EVENT NAME: TREASURE TROPERS

Number of Participants: 20



Venue: Measurements Lab, Block-I

Organized by:

➤ G. Anjali–B23CI072L

➤ G. Soumya Sree – B23CI068L

➤ P. Sravani– B23CI073L

➤ M. Harika – B21CI070L

Faculty In charge: Smt. K. Shailaja

Registration Fee: Rs.50/- per head

Participation Certificates are provided.

The event is completely fun filled event consisting of 3 rounds, which are

- 1) Gem Quest
- 2) Team Pictionary
- 3) Basket burst

ROUND 1:

"GEM QUIST"(We will provide you some germs and you have to separate them by unique colors with in limited time)

ROUND 2:

"TEAM PICTIONARY"(A drawing and guessing game where teams try to guess words based on their teammate's drawings)

ROUND 3:

"BASKET BURST"(Divide players into two teams. Set up baskets at opposite ends of the playing area Each team lines up behind their basket. On the whistle, players from each team run to the center, pick up a ball, and attempt to throw it to their teammate. Team members can move around to catch and throw balls. Caught balls are placed in the team's basket. If a ball is dropped or intercepted, it's returned to the center. The team with the most balls in their basket when time expires wins)

Cash Prizes:

1st Prize: Rs. 200/-

Winners:

➤ Team – 1: Sriram, Yuvaraj, Vinay



EVENT NAME: TECHNO FUSION: GAME ON!

Number of Participants: 20







Venue: Measurement & Instrumentation Lab, Block-I

Organized by:

➤ Sai Dattu (B23CI076L)

➤ M. Chandana (B23CI081L)

➤ Syed Nawaz (B23CI079L)

S. Nagalaxmi (B23CI066L)

Faculty In charge: Sri G.Raju

Registration Fee: Rs.49/- per head

Participation Certificates are provided.

The event is completely fun filled event consisting of 3 rounds, which are

- 1) World Whiral quiz
- 2) Tech scavenger
- 3) Splashtacular

"Techno Fusion: Game on!" features three exciting rounds, each packed with two engaging games that test both skill and strategy. In Round 1, participants face "Rapid Questions while Playing with Balloons," combining trivia with balloon-handling, followed by "Flip the Bottle and Tic-Tac-Toe," where bottle flips determine their moves on a game board. Round 2 ramps up the action with the "Straw Challenge," balancing and running with a straw, and the competitive "Bottle Flip Movement," pushing the bottle to the opponent's side with each successful flip. The final round, round 3, includes the "Pyramid Challenge," stacking glasses while balancing a ball on a spoon, and culminates with the precision-based "Spoon and Ball Challenge." The event promises fun and competition, blending physical activities with quick thinking in every round.

Cash Prizes:

1st Prize: Rs. 300/-

Winners:

> Team -1: Prashanth

EVENT NAME: FUNOVATION FRENZY

Number of Participants: 29



Venue: Block-1 – Virtual Instrumentation Lab

Event organizers:

- ➤ G. Vyshnavi Patel (B22ci029)
- ➤ M. Abhinava (B22ci006)
- ➤ J. Poojitha (B22ci020)
- ➤ M. Sneha (B22ci030)

Faculty In charge: Sri B. Shashikanth

Registration Fee: Rs. 50/- per head

Event Details:

The event consists of three rounds

1st Round: Scribble

In this we will be having teams the member in the team will take a chit and the chit as some names or words the one who take the chit should draw and the other teammates will guess the name in given timeline

2nd Round: Jigsaw puzzles

Some puzzles are given to the players; they are required to decode the puzzle.

3rd Round: Meme templates

The memes will be displayed the team members should guess the dialogue in the given timeline.

Cash Prizes:

1st Prize: Rs. 200/-

2nd Prize: Rs. 100/-

Winners:

1st Prize: Kumar



EVENT NAME: TECH ODESSEY

Number of Participants: 15



Venue: BE & IC lab Block-I.

Organizers:

> A. Sai Anivarth (B23CI084L)

> J. Shiva Kumar (B23CI069L)

> P. Ram Charan (B23CI078L)

Faculty In charge: Smt. K. Shailaja

Registration Fee: Rs.50/- per head

Participation Certificates are provided.

Round 1: Tech Bingo

• Description:

Teams played a modified version of bingo where the cards were filled with technical terms or components. The host called out definitions instead of numbers, and participants had to match the correct term on their cards.

• Fun Twist:

To keep things interesting, surprise tasks were thrown in, such as solving riddles or puzzles, allowing participants to earn extra bingo squares.

Round 2: Sound Hunt

• Description:

In this round, participants were challenged to listen carefully to a series of sounds played by the host. After the sequence was completed, they had to write down the sounds in the correct order. The individual with the best memory of the sound sequence emerged as the winner.

Round 3: Feel the Art

• Description:

A two-player sensory game where one player stood with their back to the other. The second player used their finger to draw or write something on the back of the standing player, who had to guess what was drawn based on the sensation. This round tested both sensory perception and imaginative thinking.

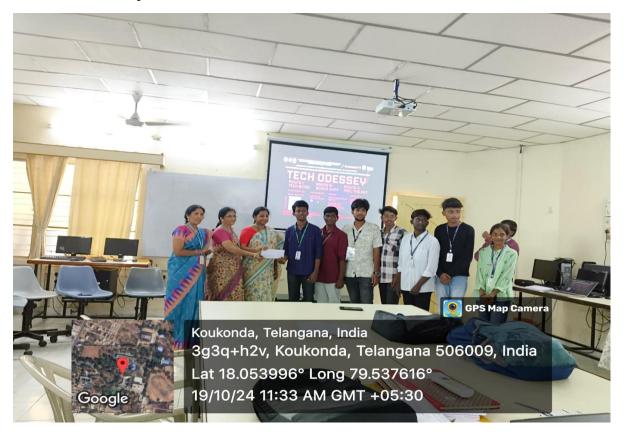
Cash Prizes:

1st Prize: Rs. 200/-

2nd Prize: Rs. 100/-

Winners:

1st Prize: Charan Teja



EVENT NAME: QUANTUM QUESTS

Number of Participants: 15



Venue: E -Cad Lab, Block-I.

Organizers:

➤ V. Ritvik(B23CI077L)

> Sreeja (B23CI004)

> Preetham (B23CI019)

Faculty In charge: Sri B. Venumaheswar Rao

Registration Fee: Rs.50/- per head

Participation Certificates are provided.

ROUND 1: Tech Tango

The first round, Tech Tango, combined C language questions with general knowledge challenges. Participants were tested on their foundational technical skills in programming, as well as their ability to think quickly and apply general knowledge in a competitive environment.

ROUND 2: Spark Fest

The second round, Spark Fest, was a debate round in which participants engaged in discussions on social topics.

The topics included significant issues such as:

- ❖ Co-education vs. Same-gender Schools/Colleges
- ❖ Love Marriage vs. Arranged Marriage

This round tested participants' communication skills, critical thinking, and their ability to present well-structured arguments on thought-provoking topics.

ROUND 3:

The final round, Thrilltopia, was a treasure hunt involving a series of logical questions and clues. Participants had to navigate through these challenges, applying their problem-solving skills and logical reasoning to reach the final goal. This round added an element of adventure and excitement to the event.

Cash Prizes:

1st Team: Rs. 200/-

Winners:

1st Prize Team: Nithin



EVENT NAME: ELECTRO EXPO

Number of Participants: 10



Venue: Block –I: Virtual Instrumentation lab

Faculty In charge: Dr. K. Srinivas

Registration Fee: Rs. 50/-per head

Participations Certificates are provided for each and everyone.

Organizers:

- ➤ M. Jithin (B22CI013)
- ➤ J. Praveen (B23CI047)
- ➤ S. Laxmi Narasimha (B23CI045)



Event Format:

Participants were allotted 25 minutes for each round to answer the Electronic Explorer Quiz, Sound detection and guessing game. Participants were divided into batches and sit together. Extra time is added during the rounds for participants to be free to think in quiz time. Sound detection game is done within time, participants are actively interacted with the batch members and had a great competition among themselves.

Cash Prize Details:

1st Prize: Rs. 150/-

Winners Details:

1st prize: Alladi Siva Sankar

EVENT NAME: PAPER PRESENTATION

Number of Participants: 06



Venue: Block-1 – Virtual Instrumentation Lab

Faculty In charge: Dr. O.Anjaneyulu

Registration Fee: Rs. 50/-per head

Participations Certificates are provided for each and everyone.

Organizers:

- ➤ K. Nithisha(B21CI026)
- > CH. Shashank (B21CI027)
- ➤ P. Vishal(B22CI065L)

Event Format:

As part of SUMSHODINI'24, the ECIE branch hosted a Paper Presentation event, where six participants presented their major project papers on topics spanning IoT, Machine Learning, Signal Processing, and drones. O. Anjaneyulu sir led an engaging Q&A session, encouraging participants to explore their research in depth. CH. Shashank was awarded Best Presentation for his innovative project on a face detection attendance system, recognized for its clarity and contribution to the field.



