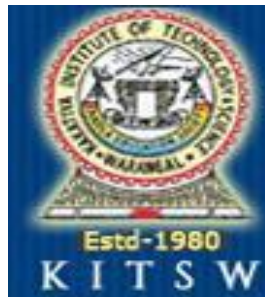**DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING**
(Established:1981)
(UG Programmes – B. Tech. (ECI) & B. Tech. (EIE))
(PG Programme – M.Tech. (EV))

REPORT ON
"SUMSHODINI 2022"
18-19 November '22

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL – 15
(*An Autonomous Institute under Kakatiya University, Warangal*)

KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE, WARANGAL
(An AUTONOMOUS Institute under Kakatiya University - Warangal)
DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING
(UG Programmes – B. Tech. (ECI) & B. Tech. (EIE))
(PG Programme – M.Tech. (EV))

ABOUT THE HOST DEPARTMENT:

The Department of Electronics & Instrumentation Engineering (EIE) was established in the year 1981 in Kakatiya Institute of Technology & Science (KITS), Warangal. **Presently, the department is offering B. Tech Programme in EIE, B.Tech Programme in Electronics Communication & Instrumentation Engg. (ECI), Specialized M. Tech programme in Embedded System & VLSI and Doctoral programme in Ph.D (E&I) under Kakatiya University (KU), Warangal**. **The B. Tech Programme in EIE has been accredited under TIER-I status by the National Board of Accreditation (NBA), New Delhi**. Department is in process of applying for NBA accreditation for B.Tech. (ECI) and M. Tech. (EV) programmes.

The institute to its credit is first in the country to offer a B.Tech. programme in Electronics & Instrumentation stream. Keeping in view of present industry requirements in the area of Embedded sytems, IoT and AIML, B. Tech. (ECI) 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 technologies, instrumentation and control for automation of processes. The objective of the ECI 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 (ECI) curriculum is designed with a futuristic perspective so that the ECI students are equipped in advance to tackle any challenge that might arise from the new age industry 4.0 revolution.

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 and Instrumentation Engineering Association" 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: Workshop on Drones
2. Arcadathon 2.0
3. Viserion
4. Hidden Circuit
5. Enigma 2.0
6. Sparkplug

7. Mind Bloggers
8. Quiz Buzz
9. Paper Presentation
10. Placement Heat
11. Concentrix 2.0

WORKSHOP: "WORKSHOP ON DRONES"

As part of Sumshodhini'22, on behalf of the department, the students of B. Tech. (EIE), B. Tech. (ECI) & M. Tech. (EV) in association with ISTE student Chapter and Technical Club, KITSW are organized a technical workshop - "WORKSHOP ON DRONES" on 18th Nov 22. Drones are used for various reasons like surveillance, traffic monitoring, firefighting, personal use, drone-based photography, etc. Now a days drones are widely used in agriculture, they can be used on nearly any kind of crop, including rice, wheat, corn, citrus trees, cotton, and much more. In addition to covering more land at a lower price, drone spraying can offer major environmental benefits.

This workshop teaches you the fundamentals of Drones that is introduction to types of UAV's, applications of UAV's, Multirotor (a helicopter having more than two rotors), fixed wing, about Hybrid UAV's. It also focuses on Introduction to the fundamentals of aerodynamics and principles of flight. It also includes the components of drones (BLDC motor, ESC, Flight controllers, Radio controllers, power distribution, gps, mavlink, BEC), Design of fuselage and frames.

Finally the workshop ended up with practical session, which consists of assembling of frames and power distribution as well as assembly and connections of propulsion systems.

1-Day Workshop on Drones [18th November 2022]

What will you learn after attending this Workshop:

Here is a small description of the our workshop which is conducted on drones we have learnt many things about its pros and cons

Here are some applications of drones
- Military Applications
- Helps Emergency Responders save Lives.
- Makes Inspections More Efficient.
- Helps Greatly With Scientific Research.

Here we have some disadvantages on drones
- UAVs can be hijacked or manipulated.
- Endanger wildlife and ruin tourist experiences.

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 drone and learnt its importance of each and every particular part of the drone.

Applications you can make using this kit:

- Aerial Photography & Videography.
- Real estate photography.
- Mapping & Surveying.
- Asset Inspection.
- Payload carrying.
- Agriculture.
- Bird Control.
- Crop spraying.

Workshop Benefits and & Highlights:

Here as we have mentioned above the particular that how the simulation (controlling of remote of drone) and assembling of drones as it is very expensive we made sure that each every student have done through hands.

And every student have flew the drone in our college premises everyone and happy. Everyone have given good response about our workshop. They felt happy and satisfied about the workshop

CONTENTS

Session 1:
- ➢ Introduction to UAV's
- ➢ Types of UAV
- ➢ Application of UAV
- ➢ Multirotor
- ➢ Fixed wing
- ➢ Hybrid UAV
- ➢ Selection of suitable drone

Session 2:

- ➢ Introduction to fundamentals of aerodynamics
- ➢ Introduction to principles of flight

- Components of drones (BLDC motor, ESC, flight controllers, radio controller, power distribution, gps, mavlink, BEC)
- Design aspects of fuselage and frames

Session 3:

- Frame selection and development
- Practical section: assembly of frame and power distribution
- Practical section: assembly and connections of propulsion system

Registration Fee:
Rs.1199/- per head

Venue:

Block-V,

VC lab

Workshop Coordinators:

E.Bala Brahmaiah

Daniya Zaki

Faculty Incharge:

Smt K.Shailaja & Sri G.Raju

Resource Persons:

Number of Participants: 71

EVENT NAME: ARCADATHON 2.0

Venue: Measurements Lab, Block-I.

Organized by:

S. Deepika Reddy – 9347584996

P. Divya Sri –9121877691

G. Deepshika– 9346141525

M. Sai Nikshitha– 8328041965

Registration Fee: 60/- per head

Participation Certificates are provided.

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

1) Brain O Booster

2) Guess me

3) Who's the Einstein?

4)Surprise Round

Round 1: Brain O Booster

We'll have a small quiz based on general knowledge.

Round 2: Guess me

The participants have to guess the Logos of different companies /brands/ products that are displayed.

Round 3: Who's the Einstein?

A Group of words will be displayed for a few seconds, the participants have to memorize the displayed words and write them on the paper given to them. Who writes the maximum number of words will win.

Round 4: Surprise round

This round will be informed to the participants after the successful completion of the above three rounds.

Cash Prizes:

1st Prize: 750/-

2nd Prize: 500/-

3rd Prize:350/-

Winners:

Team – 1: Akshith, Kanksha, Vyshnavi Patel, Akshitha, Prem Prajwal.

Team – 4: G.Karthik, Raghu Charan, S.Krishna,G. Rishik,Santhosh.

Team –2: A.Kamal ,krishna Mohan, Yaseem, Gnaneshwar, Dhivakar.

EVENT NAME: VISERION

Venue: Measurements Lab, Block-I.

Organized by:

S. Sahithi – 7330713910

B. Bhargavi – 9505775979

R. Likhitha – 9154401893

B. Thanmai Sri – 9154549977

Registration Fee: 50/- per head

Participation Certificates are provided.

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

1) What is Similar

2) Fractal

3) Where are you from?

Round 1: What is Similar

We'll display images of 2or3 different movies for each team, each slide has something common in the movies displayed. The teams have to find what is the common thing in those 3 movies. If they answer correctly they get 10points and they can pass the question to the next team. If the passed question is answered correctly they get 5 points.

Round 2: Fractal

Scattered letters, which form a word when arranged properly, will be displayed for 20seconds, each team is given a sheet where they need to write the answers. They have to guess what that word is. Each correct answer will earn them 10points.

Round 3: Where are you from?

In this round we will display memes templates for 15seconds for each team. They have to guess the movie name from which template has been taken, and they have to explain the scene or tell the dialogue.

Cash Prizes:

1st Prize: 500/-

2nd Prize: 300/-

Winners:

Team – 4: Raghu charan, Nandini Mahalaxmi.

Team – 5: B. Varun, Bhanu teja, Devaraj, Sidhartha, Nandu.

EVENT NAME: HIDDEN CIRCUIT

Venue: ECAD Lab, Block-I.

Organized by:

E. Tharun – 9182229635

G.Pranava– 6309852768

V.Abhinaya – 9390597303

Ch.Jashwanth – 8897838697

J.Prashanth -- 9912842302

Registration Fee : 80/- per head

150/- per two

280/- per team (4)

Participation Certificates are provided.

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

1) Quiz

2) Circuit Hunt

3) Build The Circuit

Round 1: Quiz

We'll explain a ppt regarding IOT and based on the given explanation a quizzy link is provided to the participants ,the result of the round will be projected on the screen accordingly with correct answer and less time taken to answer the questions.

Round 2: Circuit Hunt

In this round ,Clues are hidden at various places in the college, the participants have to go and find the clues with their team mates with the 1st clue provided by us to each team.

Round 3: Build The Circuit

In this round ,the participants who will find all the clues and come to the lab will be given the components will work on build the circuit with the given components.

Cash Prizes:

1st Prize: Circuit&500/-

2nd Prize: Circuit

Winners:

Team – 6: L.Sathwik, G.Sukdev,K.Abhishay,Revanth

Team – 7: Ch.Sai Vamshi, N.Sri Twisha, V.Shivani, L.Yuvaraj, B.Sashi Kumar

EVENT NAME: ENIGMA 2.0:

Round-1: Flip and Seek

In this round we need to flip the glass. We will arrange 15 glasses and some chocolates are hidden under some glasses randomly. The participant need to flip the glass and should take one of the 15 glasses. He/ She gets 50 points if they get chocolate.

This happens around 1min time limit.

Round -2: Blow It

In this round we will arrange some glasses with balloons. The participant need to blow the balloon with the glass and should reach the other end of the table. This also should complete in 1minute.

EVENT NAME: MINDBLOGGERS:

Round -1: Quiz

In this round we will display 15 questions on screen, general knowledge and some riddles. Each question has time limit of 45sec. If the participant knows the answer they need to answer aloud.

Round -2: Know the Culprit

We will narrate the story with some clues included in that, the participant need to think logically and need to find the culprit in the story. Each story 20 points.

The registration fee for both the events is 100/-

Each event is 60/- per head

Mind Bloggers also 60/- per head

VENUE: VI LAB, BLOCK—1

EVENT NAME: QUIZZ BUZZ

VENUE: BLOCK 1, MPMC LAB

Organised by:

K. Gayathri (7893454112)

V. Sai Jyothi (90635 08262)

Ch. Pranathi Reddy (63024 91112)

Ch. Hari Priya (98665 91560)

QUIZZ BUZZ is technical event which has 3 rounds.

Round 1: CONNECTIONS:

In this round ,the participants will be shown few pictures which will be connected to each other. Participants should guess the movie/country names

Round 2: MUSICANA:

Here participants should sing the song which is shown to be them in reverse order or we will ask u to sing it from English to Telugu.

3: QUICK GUESS:

Finally, it is a rapid fire round, at last we will ask you to draw some logos of famous brands or we ask questions based on current affairs, technology etc.., (you will be given some clues).

Registration fee: 60/- per head.

Merit certificates and prize money will be awarded for top 3 winners.

WINNERS:

1st prize: Sanjana

2nd prize: Saranya

3rd prize: sohel

EVENT NAME : PAPER PRESENTATAION

Venue:

Block –I:

Room No 203,

Registration Fee: Per head – 70/-

Participations Certificates are provided for each and everyone.

Date: 09-11-2022.

'PAPER PRESENTATION' is a technical event in which there is individual competition and the main motto is to bring students out of stage fear and also improve their communication skills.

Registration is open for all branches.

And the winners will be declared based on their presentation skills.

ORGANISERS:

Ch.Vaishnavi - 6309651965

Yasmeen - 9963544090

Divya Joshi - 7207172902

N.Saipriya - 7981142486

CASH PRIZE DETAILS:

1st Prize: 300/-

2nd Prize: 200/-

3rd Prize: 130/-

WINNERS DETAILS:

1st Prize: V. UshaSree

2nd Prize: Krishna Mohan

3rd Prize: Kavya

EVENT NAME: PLACEMENT HEAT

Venue: Block –I:

Room No 213, LINEAR INTEGRATED CIRCUITS LABORATORY

Registration Fee: Per head – 80/-

Participations Certificates are provided for each and everyone.

Date: 19-11-2022.

'PLACEMENT HEAT' is a technical event in which there is individual competition and the main motto is to bring awareness among students regarding HOW an INTERVIEW goes in a corporate.

Registration is open for all branches.

And the winners will be declared based on their presentation skills.

ORGANISERS:

K. Chandrasen - 8639402158

P. SaiTeja - 7013133626

S. AbhiRam – 7794 854 356

CASH PRIZE DETAILS: Prize money of Rs. 600/-

WINNERS DETAILS:

Name: SAI RAHUL

Branch: CSO(IOT)

Roll No.: B22IN091

Contact: 9182348443

EVENT NAME: CONCENTRIX 2.0

Venue:

Block –I:

Room No 218,

Registration Fee: Per head – 50/-

Participations Certificates are provided for each and everyone.

Date: 09-11-2022.

'CONCENTRIX 2.0' is a technical event in which there is individual competition. This event helps to develop business skills.

Registration is open for all branches.

And the winners will be declared based on their presence and skills.

ORGANISERS:

J. Chinmai - 9390812444

T. Srivarshini – 7075522816

R. Teja phanindra - 8340029275

K. Sohan - 7981271258

CASH PRIZE DETAILS:

1st Prize: 200/-

2nd Prize:100/-

WINNERS DETAILS:

1st Prize: Sd. Yaseen

2nd Prize: Vyshnavi patel

EVENT NAME: SPARK PLUG

Venue:

 Block-1

 VI LAB

Reg. Fee :Per head 60/-

With friend 100/-

Participation certificates are provided

Date:19-11-2022

SPARK PLUG is technicalevent which requires "speed in response,and presence of mind, spontaneity and knowledge on basic electronics components

Open for all branches

 Participate in the event & know many things you don't know

It consists of 3 rounds

ROUND1 :"BLOW-BALL"

participant need to blow the ball from one glass to other without skipping(cup blowing challenge)within a given time.

ROUND2: "CONNEXION"

The participants has to frame a word while we display few pictures._"MEME IT"participants has to create a meme while we display a picture in a specific time.

ROUND3: "FLIP TAC TOE"

participants are said to flip the cups(flipcup challenge) and further game is played._"QUIDDLER" We are going to rovide shuffled memes participants has to frame them correctly.

Reg. Fee :Per head 60/-

With friend 100/-

Participation certificates are provided

Organised by:

G. Ratna priya-9381135240

B V N Sai Sharan-9652283038

N. Ashritha Sagar-9030317616

Sabah Najam-9392513129

- **Cash prize details.**
- 1st Prize: 400/-.
- 2nd Prize: 250/-.
- 3rd Prize: 150/-

Winners details:

1st Prize: shravan

2nd Prize: Manish
3rd Prize: Rakshitha