



FRANCIS XAVIER ENGINEERING COLLEGE
Department of Electronics & Communication Engineering
Newsletter (2022-2023 Odd Semester)

Volume: 21 issue: 1

JUL 2022 - DEC 2022



DEPARTMENT VISION

To develop Electronics and Communication Engineers by permeating with proficient morals, to be recognized as an adroit engineer worldwide and to strive endlessly for excellence to meet the confronts of our modern society by equipping them with changing technologies, professionalism, creativity research, employability, analytical, practical skills and to excel as a successful entrepreneur.

DEPARTMENT MISSION

1. To provide excellence through effective and qualitative teaching- learning process that equips the students with adequate knowledge and to transform the students' lives by nurturing the human values to serve as a precious resource for Electronics and Communication Engineering and nation.
2. To enhance the problem solving and lifelong learning skills that will enable by edifying the students to pursue higher studies and career in research.
3. To create students with effective communication skills, the abilities to lead a ethical values in order to fulfil the social needs.

STATEMENT OF PSOs

PSO1: Design, Implement and Test Embedded and VLSI systems using state of the art components and software tools.

PSO2: Design and develop the signal processing and communication systems for the real time application.

STATEMENT OF PEOs

PEO1: Acquiring Quality Education:

To develop in the students the ability to acquire adequate knowledge on all aspects of Engineering and continue to develop professionally through lifelong learning which would spark an interest for higher studies and cutting-edge research.

PEO2: Developing Multi-skills & professionalism:

To provide ability in dynamic leadership skills, powerful Discerning & Decision making and communication skills with amicable team spirit and ethical responsibility.

PEO3: Contemporary learning:

To get equipped with skills in trending technologies in industries, which delivers excellent job prospects and kindles the spirit of entrepreneurship

EDITOR: Mrs. J. Friska AP/ECE

CO EDITOR: Mrs. E. Francy Irudaya Rani AP/ECE

Student Editor : Santosh & Jeba David

SEMINAR-EDC/ECE

A session was arranged by the Entrepreneurship Development Cell of ECE department and MHRD IIC on 17.06.2022 through offline mode. The Seminar was presided by Mrs. J. Friska HOD/ECE and jointly coordinated by EDC director and IIC president Dr. Lourdes Poobala Rayen. Mr. Vignesh Kumar, first year ECE welcomed the gathering and the program was coordinated by Dr. R. Prem Ananth, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Assistant professor,

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INSTITUTION'S INNOVATION COUNCIL
Office of Innovation

TOPIC: How to Pitch your Startup

17
JUNE 2022
10:00 AM

Speaker
Prof. C. Amarsingh Feroz B.E., M.E., M.B.A.
Associate Professor,
Department of Electronics and Communication Engineering,
Francis Xavier Engineering College.

Organised by
Entrepreneurship Development cell
& Institution's Innovation Cell

In association with
Dept. of Electronics and
Communication Engineering

Co-ordinator
Dr. R. Prem Ananth
Assistant Professor / ECE

Convener
Mrs. J. Friska
HoD / ECE

Dr. Lourdes Poobala Rayen
Director EDC and IIC President

Dr. K. Jeyakumar
General Manager - Development

Dr. V. Velmaragan
Principal

Francis Xavier Engineering College. The Session was handled by Prof. C. Amarsingh Feroz, B.E., M.E., M.B.A, Associate Professor, Department of Electronics and Communication Engineering, FXEC from 3.00 PM – 04.00 PM. His session was about what a Business Pitch is? He made an interaction session with students and clarified their queries.

SEMINAR

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INSTITUTION'S INNOVATION COUNCIL
Office of Innovation

TOPIC: World Environment Day
"Environment management and Sustainability"

14
JUNE 2022
10:00 AM

Speaker
Dr. P.S. Suja Pon Mini
Professor - Chemistry,
Francis Xavier Engineering College.

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& Institution's Innovation Cell

In association with
Dept. of Electronics and
Communication Engineering

Co-ordinator
Dr. R. Prem Ananth
Assistant Professor / ECE

Convener
Mrs. J. Friska
HoD / ECE

Dr. Lourdes Poobala Rayen
Director EDC and IIC President

Dr. K. Jeyakumar
General Manager - Development

Dr. V. Velmaragan
Principal

A session was arranged by the Entrepreneurship Development Cell of ECE department and MHRD IIC on 14.06.2022 by 3.00 pm through offline mode. The Seminar was presided by Mrs. J. Friska HOD/ECE and was coordinated by EDC director and IIC president Dr. Lourdes Poobala Rayen. The Students and faculty members of the department of ECE participated in the event. The welcome address is given by Miss. Selva priya, second year ECE student and

SEMINAR

A session was arranged by the Entrepreneurship Development Cell of ECE department and MHRD IIC on 16.06.2022 through offline mode. The Seminar was presided by Mrs. J. Friska HOD/ECE and was coordinated by EDC director and IIC president Dr. Lourdes Poobala Rayen. The welcome address is given by Mr. Shane Boaz, first year ECE and the program was coordinated by Dr. R. Prem Ananth, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Assistant professor, FXEC. The Session was handled by Prof. A. Kandasamy, Coordinator - EDC, Department of Civil Engineering, FXEC. His speech highlighted the Startup

INNOVATIVE IDEAS FOR BUSINESS STARTUP THROUGH DESIGN THINKING

A Seminar on Innovative ideas for business startup through Design Thinking was organized by Entrepreneurship Development Cell & Institutions' Innovation Council on 16th June 2022 at 11:30 AM. The Guest speaker of the program was Dr. R. Prem Ananth, IIC Innovation Ambassador, Francis Xavier Engineering College.

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INSTITUTION'S INNOVATION COUNCIL
Member of Institution's Innovation Council

16th
JUNE, 2022

Guest Talk on innovative ideas for business start up through Design thinking

Resource Person

Dr. R. Prem Ananth
IIC Innovation Ambassador
Asst. Prof., / Department of ECE
FXEC, Tirunelveli

Organized by
Entrepreneurship Development Cell & Institution's Innovation Council

In association with
Dept. of Civil Engineering

Co-ordinators
Prof. A. Kandasamy
Co-ordinator - EDC

Convener
Prof. J. Samuel Prabaharan
HoD / Civil

Dr. P. Lourdes Poobala Rayen
Director - EDC & President - IIC

Dr. K. Jeyakumar
General Manager - Development

Dr. V. Velmurugan
Principal

He had explained the process of business startup that contains five phases of Design thinking like 1. Empathize, 2. Define, 3. Ideate, 4. Prototype and 5. Test. During his speech he elucidated the Importance of Entrepreneurship, Introduction to innovation, Myth and reality in innovation, types of innovation, Design thinking and case study in Design thinking. His lecture inspired the students to start a startup company through innovation and design



SKILL TRAINING PROGRAM - ECE

With the aim to benchmark competencies that matter the most for being employable in competitive landscape, the Electronics and Communication Engineering Department has organised Mobile Robotics skill training programme from 01.08.2022 for the II year students. As Mobile Robotics is one of the highest rated future technologies, this skill training is organised to focus the problems inherent to mobile robot implementation. The curriculum was framed as per the world skills requirement. The main objective of this skill training is to enable the students to design various robots like Maze solver and Line Follower using Arduino. During the first session students were familiarised with the components of Robotics including Arduino UNO, various Sensors like Ultrasonic sensor, PIR Sensor, Temperature sensor and Wifi Module. Informative videos related to mobile robotics were shown to the students. Daily Assessments are planned meticulously and is carried out regularly. A total of 52 students participated in the training programme conducted by Mr. C. Amar Singh Feroz, Mrs. M. Radha, Dr. M. S. Sumi and S. Balammal @ Geetha of ECE Dept.





MOBILE ROBOTICS - ECE

Day 7 skill training programme on Mobile Robotics was conducted for the II year ECE students on 10.08.2022. A total of 89 students were split into various batches with maximum of 4 students per batch to work in Maze solver robot using single ultrasonic sensor, maze solver robot using three ultrasonic sensors and maze solver robot using servo motor. Bluetooth controlled robot was designed and modelled. Daily assessment was also carried out meticulously. The training was conducted by the professors of ECE Dept - Mr. C. Amarsingh Feroz, Mrs. M. Radha, Dr. M. S. Sumi and Mrs. S. Balammal@Geetha.



SIGNING OF MOU WITH GAPCRUD PRIVATE LIMITED, KOLKATA

Francis Xavier Engineering College & Gapcrud Private Limited, Kolkata signed a Memorandum of Understanding (MoU) on 20th July 2022 for collaborative initiatives in the department of ECE, Advanced Communication Systems Applied lab, Advanced Electronic System Design Applied Lab, Embedded & IoT Applied lab. This MoU will pave the way for joint projects, joint seminars, training of teachers and students, Internships, Coaching students for technical expertise, platforms and services to support institutional or departmental events like hackathons or workshops and also to deliver webinars, seminars in emerging technologies. Dr. M. Suresh Chinnathampy Assistant Professor /ECE, Dr. K. Lakshmi Narayanan Associate Professor / ECE and Dr. A. Andrew Roobert Assistant Professor/ECE, has undertaken the liability to continue the establishment under the guidance of Dr. K. Jeyakumar GM (Development) Mr. S. Krishnakumar GM (Admin), Dr. V. Velmurugan Principal, Dr. A. Gnana Saravanan Professor /Placement Cell and Professor J. Friska HoD/ECE.



SEMINAR-EDC/ECE

A session was arranged by the Entrepreneurship Development Cell of ECE department and MHRD IIC on 17.06.2022 through offline mode. The Seminar was presided by Mrs. J. Friska HOD/ECE and jointly coordinated by EDC director and IIC president Dr. Lourdes Poobala Rayen. Mr. Vignesh Kumar, first year ECE welcomed the gathering and the program was coordinated by Dr. R. Prem Ananth, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Assistant professor,



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TOPIC How to Pitch your Startup

17
JUNE 2022
1:00 PM

Prof. C. Amarsingh Feroz B.E., M.E., M.B.A.
Associate Professor,
Department of Electronics and Communication Engineering,
Francis Xavier Engineering College.

Organized by
Entrepreneurship Development cell
& Institution's Innovation Cell

In association with
Dept. of Electronics and
Communication Engineering

Francis Xavier Engineering College. The Session was handled by Prof. C. Amar singh Feroz, B.E., M.E., M.B.A, Associate Professor, Department of Electronics and Communication Engineering, FXEC from 3.00 PM – 04.00 PM. His session was about what a Business Pitch is? He made

HOW TO PITCH YOUR STARTUP IN 3 MINUTES

The Entrepreneurship Development Cell of FXEC is a forum developed to enhance the knowledge and skill of entrepreneurs through several classroom coaching, programs, and trainings. The main point of the development process is to strengthen and increase the number of entrepreneurs. The Entrepreneurship Development Cell of ECE department and MHRD IIC organised a seminar on the topic "How to pitch your startup in 3 Minutes" on 17.08.2022 from 1.20 - 3.00 PM for the benefit of their students. The workshop was presided by Mrs J Friska HOD/ECE and was jointly coordinated by EDC director and IIC president Dr. Lourdes Poobala Rayen. Mr. Samuel Dinakaran, third year ECE welcomed the gathering and the program was coordinated by Pradheep T Rajan B, AP/ECE, FXEC. The Session was handled by Dr. R Prem Ananth, AP/ IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Francis Xavier Engineering College. He addressed the gathering on

EMPOWERING EDUCATION: GLOBAL LEADERSHIP.

FRANCIS XAVIER ENGINEERING COLLEGE
INSTITUTION'S INNOVATION COUNCIL

TOPIC: **How to Pitch Your Startup in 3 Minutes**

17 AUGUST 2022 1:30 PM

Organized by Entrepreneurship Development Cell & Institution's Innovation Council
in association with Department of Electronics and Communication Engineering

Resource Person: **Dr. R. Prem Ananth**
AP/ECE, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Francis Xavier Engineering College.

Coordinators: **Mr. Pradheep T Rajan B** (Assistant Professor / ECE), **Dr. Lourdes Poobala Rayen** (Director EDC and IIC President)

General: **Mrs. J. Friska** (HOD / ECE)

General Manager - Development: **Dr. K. Jayakumar**

Principal: **Dr. V. Velumagan**



SKILL TRAINING PROGRAM - ECE

With the aim to benchmark competencies that matter the most for being employable in competitive landscape, the Electronics and Communication Engineering Department has organised Mobile Robotics skill training programme from 01.08.2022 for the II year students. As Mobile Robotics is one of the highest rated future technologies, this skill training is organised to focus the problems inherent to mobile robot implementation. The curriculum was framed as per the world skills requirement. The main objective of this skill training is to enable the students to design various robots like Maze solver and Line Follower using Arduino. During the first session students were familiarised with the components of Robotics including Arduino UNO, various Sensors like Ultrasonic sensor, PIR Sensor, Temperature sensor and Wifi Module. Informative videos related to mobile robotics were shown to the students. Daily Assessments are planned meticulously and is carried out regularly. A total of 52 students participated in the training programme conducted by Mr. C. Amar Singh Feroz, Mrs. M. Radha, Dr. M. S. Sumi and S. Balammal @ Geetha of ECE Dept.



WORKSHOP

On 27th June 2022 a workshop was organized by the Entrepreneurship Development Cell and Institution's Innovation Council in association with Civil Engineering Department and Embedded & IOT Applied lab. The resource persons were our student Entrepreneurs Mr. T. Baskar and Mr. Muthuraman, III ECE from Embedded & IOT Applied Lab. They delivered a talk on Entrepreneurial Opportunities to Civil Engineers through IOT. Mr. Muthuraman, A, being the General Manager Colakin and Founder & CEO of Kasadara Tech and Realty studio(Startup company), shared his personal experiences in his business. He also taught the students the types of startups available and their functions. He inspired the participants by sharing a lot of his personal experiences and business opportunities available for engineers. He stressed the need for becoming an entrepreneur to introduce the IOT (Internet of Things) skills in the field of Civil Engineering. Mr. T. Baskar being the outstanding student of Embedded and IOT Applied lab delivered a talk on the Sensors, its Construction and its applications in the field of Engineering and also gave a hands - on - training related to IOT. He motivated our students to convert their innovative ideas into a business opportunity with the use of IOT. 39 Civil Engineering students & 2 staff members from Civil Engineering department participated in this programme.

FRANCIS XAVIER ENGINEERING COLLEGE
INSTITUTION'S INNOVATION COUNCIL

27 JUNE 2022

TOPIC: **Entrepreneurial Opportunities to Civil Engineers through IOT**

Organized by Entrepreneurship Development Cell & Institution's Innovation Council
in association with Dept. of Civil Engineering & Embedded and IOT Applied Lab

Resource Person: **Mr. T. Baskar**
III ECE, AP/ECE, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Francis Xavier Engineering College.

Coordinators: **Dr. R. Prem Ananth** (AP/ECE, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations", Francis Xavier Engineering College.), **Dr. Lourdes Poobala Rayen** (Director EDC & President - IIC)

General: **Dr. K. Jayakumar** (General Manager - Development)

Principal: **Dr. V. Velumagan**

INNOVATIVE IDEAS FOR BUSINESS STARTUP THROUGH DESIGN THINKING

A Seminar on Innovative ideas for business startup through Design Thinking was organized by Entrepreneurship Development Cell & Institutions' Innovation Council on 16th June 2022 at 11:30 AM. The Guest speaker of the program was Dr. R. Prem Ananth, IIC Innovation Ambassador, Francis Xavier Engineering College. He had explained the process of business startup that contains five phases of Design thinking like 1. Empathize, 2. Define, 3. Ideate, 4. Prototype and 5. Test. During his speech he elucidated the Importance of Entrepreneurship, Introduction to innovation, Myth and reality in innovation, types of innovation, Design thinking and case study in Design thinking. His lecture inspired the students to start a startup company through innovation and design



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INSTITUTIONS' INNOVATION COUNCIL

Guest Talk on innovative ideas for business start up through Design thinking

16th JUNE 2022

Dr. R. Prem Ananth
IIC Innovation Ambassador
Asst. Prof., Department of ECE
FREC, Tirunelveli

Organized by
Entrepreneurship Development Cell &
Institutions' Innovation Council

Co-ordinators
Prof. A. Kandhasamy
Co-ordinator - EDC

Dr. P. Lourdes Poobala Rayes
Director - EDC & President - IIC

Dr. K. Jayakumar
General Manager - Development

In association with
Dept. of Civil Engineering

Convener
Prof. J. Samuel Prabhakaran
Head / Civil

Dr. V. Velmanagan
Principal



GUEST LECTURE

A session was arranged by the Entrepreneurship Development Cell of ECE department and MHRD IIC on Aug 25th 2022 through offline mode. The session was presided by Mr. C. Amarsingh Feroz Assistant HOD/ECE and jointly coordinated by EDC director and IIC president

Dr. Lourdes Poobala Rayen. ECE Students and faculties were participated in the event. The welcome address is given by Mr. Harni Gomathy Second year ECE student and the program was coordinated by Dr. R Prem Ananth, IIC Convener, IIC Innovation Ambassador for "Design Thinking & Innovations", AP/Francis Xavier Engineering College. The Session was handled by Dr. N. Muthukumar, M.E., Ph.D., Prof./ECE; Francis Xavier Engineering College from 1.20 - 3.00 PM. He gave a brief introduction on IPR and explained the various related terms such as copyrights, patents etc. The class was attended by the Second year students of ECE of Francis Xavier Engineering College. The resource person gave a wonderful class on IPR and shared his life experiences with the students regarding his 10 patents. The programme included talks on the value of Intellectual Property Rights and how to defend them, patenting procedures and patent informatics, patent searches, the role of innovation and invention in academia - industry partnerships, trademark and copyright protection, and do's and don'ts for researchers in the sense of publishing and patenting. This lecture was initiated by indicating the connotation of the terminologies - IP and IPR. The legal basis of IPR and then various forms were discussed. The ethos and process vs. product patents, trade secret protection, designs,



The poster features the following information:

- FRANCIS XAVIER ENGINEERING COLLEGE** AN AFFILIATE INSTITUTION ACCREDITED BY AICTE
- INSTITUTION'S INNOVATION CELL**
- PATENTED** (in a red circular stamp)
- 25th** (in a green circular stamp)
- Topic:** Session on "Identifying IPR Relating to Trademarks and Copyrights at the Early Stages of Innovation"
- Resource Person:**  **Dr. N. MUTHUKUMARAN** M.E., Ph.D., Professor, Department of Electronics Communication Engineering, Francis Xavier Engineering College.
- Organized by:** Entrepreneurship Development cell & Institute's Innovation Cell
- Co-ordinator:** **Dr. R. Prem Ananth** IIC Convener, Assistant Professor, ECE, FXEC
- In association with:** Dept. of Electronics and Communication Engineering
- Convener:** **Mrs. J. Fritika** HOD / ECE, FXEC
- Dr. Lourdes Poobala Rayen** Director EDC and IIC President
- Dr. K. Jayakumar** General Manager - Development
- Dr. V. Velmaragan** Principal

copyrights etc., and the basis of the expectance of various IPR problems were discussed and the types of patents such as biotech patent, plant patent, utility patent, software patent, business method patent, nano-tech patent, design pattern were elaborated. The wealth of patents in developed countries like USA, Japan and Europe are projected and compared with Indian status indicating poorness with the wealth of IP in India, a focus on the important of commercialization of patents was projected. The session created a great impact on the entire students and staff. Students were taught on how IPR restricts copying others' ideas and how this will help the development of new ideas for the betterment of the society. Students learnt how IPR provides total control over a new innovation and its creator. They were also given a platform to discuss how small innovations influence societies at large and how they should indulge in innovating and patenting ideas that will be useful for all the classes of individuals in the society. The session received a lot of positive feedback from both students and faculty members. The interaction between the students and the resource person was highly motivating to all the students. Finally the session ended with the feedback received from the students. The Program was well organized by Dr. R. Prem Ananth, Assistant Professor / ECE, Francis Xavier Engineering College.



ALUMNI INTERACTION



Alumni is considered to be the backbone of any organisation. They can support the organisation in creating a wide range of social and professional network. They can also educate the graduates in upgrading their skill sets with regard to the emerging practices in the industrial sector. An Alumni interaction session was arranged for the benefit of the final year ECE students on 02.09.2022 from 3.00 to 4.00 pm. Mr. Daniel Jebadurai, the special invitee, Alumni Batch (2012-2016) Assistant Manager (Network Domain), L&T, Mumbai gave a guest lecture on the topic of How Industrial networking solutions are suitable for ECE? Dr. M. Suresh Chinnathampy AP/ECE welcomed and introduced the Alumni. The Guest spoke on the importance of enhancing networking skills. It was like an eye-opening session for the students who aspire to become an employee of Software companies like TCS, Infosys, Networking companies and Electronics industry etc. The session was found to be very interactive, the students



SHAPE YOUR SKILLS - PLACEMENT TALK

Every student hopes to be hired by prestigious companies that come to campus for placements. Taking this important factor into account, developing competencies is termed essential for young graduates to improve their employability abilities and attain a successful professional path. To meet these requirements, Department of Electronics and Communication Engineering, organized a Guest Lecture on the topic "Shape Your Skills - Placement Talk" on 10.09.22 for the III year ECE students. Er. Vignesh Muthu, Lead Engineer, UST Digital Transformation solutions company, Trivandrum was the Resource Person. The session was presided by Mrs. Friska HOD/ECE who introduced the Resource Person which was jointly coordinated by Mrs. S. Balammal@Geetha, Assi. Prof., Department of ECE, Francis Xavier Engineering College. The resource person explained the expectations of the software industry. He insisted the students to update their skills and to learn various innovative ways to enhance their career. The resource person interacted with the students about their career goal and explained the ways to achieve it. He motivated the students towards skill set enhancement to enable a solid foundation for a prosperous career.



GUEST TALK

EMPOWERING EDUCATION; GLOBAL LEADERSHIP.

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INSTITUTION'S INNOVATION COUNCIL
Faculty of Electronics Engineering

RESOURCE PERSON

TOPIC
Session on "Business opportunities Through E-Commerce"

Organized by
Entrepreneurship Development Cell &
Institution's Innovation Council

In association with
Department of Electronics and Communication Engineering

Er. Vignesh Muthu
Lead Engineer,
UST Digital Transformation solutions company,
Trivandrum.

Co-ordinator
Dr. R. Prem Ananth
Assistant Professor / ECE,
Francis Xavier Engineering College

Convener
Mrs. J. Friska
HOD / ECE

10th SEPTEMBER 2022
11:30 AM

Dr. Lourdes Poobala Royes
Director EDC and IC President

Dr. K. Jayakumar
General Manager - Development

Dr. V. Veinuragan
Principal

E Commerce Businesses have emerged extensively. From startups to small businesses and large brands, many segments have benefited from E Commerce. Online websites help an entrepreneur sell their products from anywhere and help customers buy products anytime and anywhere. On 10th September 2022 a guest talk on "Business Opportunities through E Commerce" was organized by the Entrepreneurship Development Cell and IIC in association with the Department of Electronics and Communication Engineering. The guest talk was given by Er. Vignesh Muthu, Lead Engineer, UST Digital Transformation solutions company, Trivandrum from 11.30 - 12.30 PM. It was presided by Mr Amarsingh Feroz Assistant HOD/ECE who introduced the chief guest and was jointly coordinated by IIC Convener Dr. R Prem Ananth, IIC Innovation Ambassador for "Design Thinking & Innovations", Assistant professor, Department of ECE, Francis Xavier Engineering College. The speaker gave a brief introduction on E Commerce and its types. Further he highlighted that E Commerce is



VALUE ADDED COURSE



Value added Course on "Sensor Technology " with Activity Code ACT/22-23/00101, for registered III Year ECE students was conducted on 24th September 2022 from 3.00 pm to 4.00 pm. Inputs on sensors and the basic circuit building

blocks were shared and the session ended with a discussion forum on developing mini project on sensor based technology. Out of 30 registered students, 20 students attended the class. The class was planned and executed by Dr. M. V. Rajee, AP/ECE.

ROBOTICS TRAINING FOR SCHOOL STUDENTS



To incorporate various Technical Skills for the school students in and around Tirunelveli, Francis Xavier Engineering College is taking many initiatives, one such initiative is giving Robotics skills through Workshop. The workshop was held on 06.09.2022 in the VLSI Laboratory of the department of Electronics

and Communication Engineering. Prof. C. Amar Singh Feroz started the training session by giving an introduction about robotics. In the afternoon session, five students of the Embedded and IoT Applied Lab from ECE Department Mr. Sam Charles, Mr. Gladson Joel Raj, Mr. M. Thangavel, Mr. A. Donal, and Mr. M. Gausik was



WORKSHOP ON PROBLEM SOLVING & IDEATION

On 19.10.2022 a Workshop on "Problem Solving and Ideation" was organized by the Entrepreneurship Development Cell and IIC in association with the Department of ECE. The Session was handled by Dr. R Prem Ananth, IIC Convener, IIC Innovation Ambassador for "Design thinking & Innovations",



Assistant professor, Francis Xavier Engineering College from 3.00 PM - 4.00 PM. The students from II year ECE and faculties of ECE department participated. During his speech, the resource person explained ideation as the formation of ideas or concepts and he also added that people often use ideation techniques to create a list of as many solutions as possible. The speaker explained in detail about the ten effective ideation techniques such as Brainstorming, Worst idea, Storyboarding, Mind mapping, Brain writing, questioning assumptions, Sketching, Analogies, SCAMPER and Body storm. The speaker also made a technical and interactive session regarding ideation techniques for the students and

the session ended with feedback. The interaction between the students and the resource person was highly motivating to all the students. The Session came to an end with the feedback of Students. The Program was organized and coordinated by Pradheep T Rajan B, AP/ECE, FXEC.



LICENCED DRONE PILOT OF FXEC



In recent days many researches are being conducted, exploring the capabilities of the latest commercial drones, seeking ways to use them for research and projects that improve the human condition. As per government rules, an aspirant needs to get trained in drone flying at an authorised DGCA-approved drone training institute in India to get himself or herself registered as a remote pilot. A Pilot should have a 'Pilot Identification Number and 'Unmanned Aircraft Operator Permit' to fly drones in the country. Centre for Aerospace Research (CASR) was established in Madras Institute of Technology, Anna University as an autonomous centre for research in the field of Aerospace. Recently, for the past two decades the major focus of CASR has been towards research and Development in the field of Unmanned Aerial Vehicles (UAV) and has proved itself to be a pioneer in various drone-based societal applications. CASR is now India's 1st Remote Pilot Training Organisation (RPTO) under UAS Rules



ALUMNI INTERACTION SESSION ON "DISCOVER STUDENTS CAREER PATH WITH CAREER COACH"

FX Alumni Association in association with the Department of Electronics and Communication Engineering has conducted an Alumni interaction on 22.10.2022. Ms. Sancta S, Alumni Batch (2017-2021) Software Engineer, Microsoft, Bangalore was the resource person and gave a guest lecture on the topic "Discover Students Career Path with Career Coach." Dr.M. Suresh Chinnathampy AP/ECE introduced the Alumni. It was an eye-opening session for the students who really want to become a software Engineer and the resource person also made a discussion on Microsoft internships, career opportunities, training etc... The Program came to an end with a vote of thanks by Dr.S.Allwin Devaraj under the guidance of Mr. Krishnakumar, Director - FX Alumni Association, Prof. Mrs. J. Friska HOD/ ECE and coordinated by Dr. S. Allwin Devaraj, AP/ECE, FXEC.



PLACEMENT FIT TECHNICAL TRAINING

With a motive to shape the students in getting placements, a Placement Fit Technical Training was conducted by Training & Skills Development on the topic "Core C Programming" for the pre final year CIVIL, CSE, ECE, EEE, IT, Mechanical and final year MCA department Students from 14.10.2022 - 22.10.2022. The trainer for the technical training was Ms. R. Armdhaa, Technical Trainer from BYTS Services India PVT LTD, Hyderabad. During the training, the students learned introduction to C basics, Variables, Syntax, Loop Concept, Increment and Decrement, Data Representation, Number System, Functions, Storage Class, Pointer and Array and the trainer helped the students to get placement offers



in the highest package companies. A total of 168 students from various departments registered and attended the training program. The training program was convened by Dr. S. Balaji, Professor/TSD, Training and Skills SM Members.

WORKSHOP

On 19th October, 2022, a workshop on "Innovation as a Tool for Entrepreneurial Mindset" was organized by the Department of Artificial Intelligence and Data Science in association with Entrepreneurship Development Cell from 2.10 -3.00 P.M. Dr. R. Prem Ananth, AP/ECE was the resource person. During the session, the resource person addressed innovation as a tool for entrepreneurial mindset and he also asked the students to develop a plan and schedule for their innovation project. At the end of the session, students got new innovative ideas regarding startups. The workshop was coordinated by Mrs. P. Sooriabrabha, AP/AIDS.



NSS - VILLAGE VISIT TO AYANKULAM

Francis Xavier Engineering College along with FXEC NSS team organized an Outreach Program of village visits to Ayankulam village and was involved in various activities like planting saplings, House visit, School visit on 27th October 2022 from 9.00 am



to 1.00 pm. Mrs. Manimegalai, School Head, Ayankulam village was the chief guest of the program and motivated the students to involve in social service activities. Dr. M. Mohamed Sathik, Director, School of Computer Studies and Mr. A. Charles and team, Program Coordinator, SCAD Group gave ideas and guidance about outreach activities and nearly 59 II year ECE B branch students participated. This Program was encouraged by our Principal Dr. V. Velmurugan, and coordinated by Dr. R. Suman (ASP / Chemistry) NSS Program Officer and Mr. B. Pradeep T Rajan, AP/ECE encouraged the students and staff members to participate in rural development activities.



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NSS - VILLAGE VISIT TO KONGATHANPARAI

Francis Xavier Engineering College along with the FXEC NSS team organized a village visit to Kongathanparai village and was involved in various activities such as planting saplings, awareness programs, House visit on 26th Oct 2022 from 9.00 am to 1.00 pm.



The chief guest of the program was Kalaiselvi Ebinezar, village Head, Kongathanparai village. The chief guest motivated the students to involve in social service activities. Dr. M. Mohamed Sathik Director, School of Computer Studies, Mr. A. Charles and team, Program Coordinator, SCAD Group gave ideas and motivations regarding outreach activities and nearly 57 II year ECE A branch students participated. This Program was encouraged by our Principal Dr. V. Velmurugan, and coordinated by Dr. R. Suman (ASP / Chemistry) NSS Program Officer, Mrs. M. Radha AP/ECE and Ms. S. Sherlin Leela Princy encouraged the students and staff members to participate in rural development activities.



GUEST SPEAKER

On 26th October 2022, a session was organized on "Problem Solving is a key for entrepreneurial opportunities" by the Entrepreneurship Development Cell of FXEC Tirunelveli, Institution's Innovation Council in association with the Department of Civil Engineering. Dr. R. Prem Ananth, IIC Convener, IIC



innovation Ambassador for "Design Thinking and Innovations", Assistant Professor - FXEC was the chief guest of the program. The speaker started the session with the success story of Richard Montanez, the founder of Cheetos and explained that invention and impact together contribute to innovation and described that empathy, define, ideate, prototype and test are the various stages involved in solving a problem. He outlined the effective problem solving techniques which includes brainstorming, worst idea, story barding, mind mapping, brain writing, questioning assumptions, sketching, analogies, SCAMPER & body storm & explained the techniques with examples. The speaker also gave examples on the



areas that students can become entrepreneurs. The session was conducted for final year civil engineering students and a total of 30 students and 2 faculties attended the session. The session was coordinated by Mrs. P. Raja Priya, EDC coordinator/Civil.

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INTER DEPARTMENT PAPER PRESENTATION COMPETITION

The Paper Presentation Competition aims to bring out situational and analysis-based research work in students and develop their ability to think out of the box. To impart and enhance their knowledge and learning, the Department of Electronics and Communication Engineering organized the Inter Department Technical Paper Presentation Competition for the students on 10.11.2022 at Microwave Laboratory. This competition was organized to kindle the technical knowledge and presentation skills of the students in their respective specialization. Students from the ECE department presented their paper and it was evaluated by the internal expert Dr. M. Suresh Chinnathampy, AP/ECE & Advanced Communication Systems Applied Lab Incharge. Out of the paper presenters Harini Gomathy S & Haseena P of II ECE got first prize, Krishna Sai H & Vignesh Kumar K II ECE got second prize and Jenish J and Maria Milton M got third prize. This Inter Department Paper Presentation competition was coordinated by Mr. C. Amarsingh Feroz, ASP/ECE, Dr. S. Allwin Devaraj, AP/ECE under the Guidance of Prof. J. Friska/HOD-ECE.



SESSION ON "BUSINESS OPPORTUNITY IN VALUE ADDED AGRI-PRODUCTS"

On 12th Nov 2022, a Session on "Business Opportunity in Value Added Agri-Products" was organized by the Entrepreneurship Development Cell and IIC in Association with the Department of ECE. Dr. Lourdes Poobala Rayen, Innovation Ambassador for Entrepreneurship, EDC Director and IIC President, Francis Xavier Engineering College was the resource person. The students from III Year ECE and faculties of ECE Department participated. Dr. R Prem Ananth, IIC Convener introduced the guest Speaker. The Resource person started his presentation by pointing out the hurdle experienced by the persons who joined in the concern. The resource person pointed out hurdles faced by a person who joined in a concern like no time freedom, no financial freedom, no freedom of thoughts and decision, directed by superiors, increased borrowing & non-repayment of loan and explained the benefits of self-employment and he said that they enjoy time freedom, quality of life, financial freedom and pride and prestige in society. He insisted all the students and faculties to follow 3 methods in their life such as "start where you are", "use what you have", and "do what you can" and pointed out few examples like Amazon, Zomato, Swiggy e.t.c and their rapid growth in the past 10 years. He explained different types of edible mushrooms and he demonstrated



REDISCOVER AND REDEFINE INNOVATIVE THINKING TOWARDS ENTREPRENEURSHIP

On 15th Nov 2022, a guest talk was conducted on the topic "Rediscover and Redefine Innovative thinking towards Entrepreneurship" & was organized by Entrepreneurship Development Cell & IIC in association with the Department of Master of Business Administration.

Dr. R. Prem Ananth, IIC Convener, IIC Innovation Ambassador for Design thinking & Innovations' Assistant professor, Francis Xavier Engineering College was the resource person. He shared his views on the scope of opportunities for innovative thinking in entrepreneurship and highlighted that entrepreneurship requires passion, determination, a certain doggedness, and the ability to innovate. He pointed out that running a small or medium enterprise takes a huge equal amount of courage and a pinch of madness but the most important attribute to make an enterprise is to be creative. He asked students to have creative thinking because it is a way of looking at problems and



situations from a fresh perspective. It is often called 'thinking outside the box' and is all about avoiding the more normal, the most orthodox, the prosaic solution, & instead thinking of innovative ways to tackle a problem. The session created awareness among the students and also gave an idea on the future scope



A Section of students at the Freshmen Orientation

SEE THE REAL YOU



The second session was handled by Dr. Mohamed Sadhik, Director School of Computer Studies, FXEC. He spoke on Identifying the true potential of oneself by enhancing one's own competence to "See the Real You". The session was very informative and made the students realize their potential to make themselves reach their goals in the future.



MOTIVATIONAL TALK



A brief half an hour Motivational session was given to the students by Mr. Amarsingh Feroz, Asso. Prof. Department of Electronics and Communication Engineering on "Cultivating Ethical Behaviorism" and a separate session on "Tips to Success" was delivered by Mrs. Shala F. John, AP/English. The sessions motivated the students to channelise themselves to realize their potential to reach their goals.

INDUSTRY - INSTITUTE INTERACTION



Tmt. Adyasha Parida, Senior Project Manager Learning Function for Finacle Product Human Resource Operations, Infosys Limited addressing the Students. ACT/22-23/00919

Expert Talk on "Power of You"

"Embrace the power of thought to enhance the power in you". You are the product of your thought. "Be it any skill, motivation plays a very important role". Acknowledging the importance of motivating the students, Francis Xavier Engineering College organized the first series of Industry-Institute interaction for the first year students of the batch 2022-23. On 2nd December 2022, Tmt. Adyasha Parida, Senior Project Manager, Learning Function for Finacle Human Resource Operations, Infosys Limited interacted with the students on "Power of you". During the interaction, she highlighted that each one is unique and said "Embrace the power of thought to enhance the power in you. You are the product of your thought". Further, she gave inputs on effective corporate communication expected by the industries and instructed the students to grow professionally and personally by prioritizing their work.

Dr. Cletus Babu, Chairman, SCAD Group in his address motivated the students to make use of the 4 years of stay and equip themselves to land on a lucrative job. Dr. Jeyakumar, GM(D), Mr. Krishnakumar, GM(A), Dr. Mohamed Sathik, Director (CSS), Dr. John Kennedy, Director (Admission), Dr. Balaji, Director, TSD were present. The event was organized by Dr. Ganasaravanan, Director, Placements. The event supported the students to increase their self-confidence to realize their power as aspiring engineering students.



Recent Placements

Data Science Industrial Applied Lab Students win Ignite Innovations - National Level Project Contest

Data Science Industrial Applied Lab of Francis Xavier Engineering College is functioning with a motive of enhancing technical skill sets in students and instill in them the spirit of Innovation and product development. A team from Data Science Industrial Applied Lab - Adlin christiana A, Maheswari A, Selva Boopathy K S, Syed Zakriya R of II-AI&DS and Narendran S of II-CSBS, presented their idea in "Ignite Innovations-National level Project contest" conducted by Project Contest Innovative LLP in association with Annamalai Innovation and incubation research foundation on Nov 13, 2022. The team won the first prize - **The Jury Choice Award** in the event. Prof. Arunadevi M AP/AI&DS & Data Science Industrial Applied Lab Incharge mentored the team. Dr.K.Jeya Kumar, GM (Development), Mr. Krishna Kumar GM (Administration & Director, Applied Labs), Dr.V.Velmurugan, Principal, appreciated the team for their achievement.

Members of the Team



SELVA BOOPATHY K S - II-AIDS



NARENDRAN S - II-CSBS



SYED ZAKRIYA R - II-AIDS



MAHESWARI A - II-AIDS



ADLIN CHRISTIANA A - II-AIDS

The students of Electrical Drives and Automation Industrial Applied Lab publish Patent

Facilitating students to become inventors:

The members of the "Electrical Drives and Automation Industrial Applied Lab" - Nambi Natchiyar T, Monica Selvi E, Muthukumari K of II B.E ECE published a Patent on the title "Automatic Temperature Sensing Fan" under the application number 202241062981A. The Electrical Drives and Automation Industrial Applied Lab students are guided by Prof. N. Subramanian, AP/EEE. The management and the higher officials appreciated the students.

Students being reviewed by the reviewers



ACT/22-23/00926

Idea Hackathon 2.0

MSME IDEA HACKATHON

Francis Xavier Engineering College has been recognized as a Host Institution (HI) by the Ministry of MSME under MSME Champion Scheme. The objective of the scheme is to promote and support untapped creativity and to promote adoption of latest technologies in MSMEs that seek the validation of ideas at the proof-of-concept level. In this connection every year MSME conducts an Idea Hackathon where any innovator - having email and mobile number can participate in this event. Through this Idea Hackathon Financial Assistance, a maximum of up to Rs. 15 lakh per approved idea is provided to the Host Institute for developing and nurturing of the idea into prototype. With regard to this, MSME conducted the first Idea Hackathon earlier this year and two incubates from Francis Xavier Engineering College HI - Dr.M.Kannan & Dr.C.Subharaj got their prototype approved with a grant of Rs. 12 Lakhs and Rs 7 Lakhs respectively for nurturing their ideas in to prototype.

Idea Hackathon 2.0 was conducted during September - November 2022. FXEC HI received 132 ideas and the shortlisting of ideas at the host institution level was conducted on 30.11.2022 & 01.12.2022. Mr. Rahul, Project Lead, Tirunelveli Regional Hub, Tamil Nadu start-up and innovation mission, Govt.of Tamil Nadu, Dr. Karthick, Director, Maxelerator Foundation, Madurai and Mr. Vignesh Annamalai, Co-Founder and CEO of Brand Maxima, Dr. G. Rajakumar, COE, FXEC & Dr. T. C. Subbulakshmi, In-Charge Ideation IAL acted as Technical Reviewers. Participants from various parts of Tamilnadu visited FXEC and presented their ideas. This event was coordinated by Dr. K. Lakshmi Narayanan, MSME Business Incubator In-charge, Dr. Lourdus Poobala Rayen, Director EDC.