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DEPARTMENT OF ELECTRONICS & COMMUNICATION, MARIAN ENGINEERING COLLEGE, KAZHAKUTTOM

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VISION OF THE INSTITUTE:

"To be an institution offering quality technical education and promoting research with strong ethical values for public good."

MISSION OF THE INSTITUTE:

"To mould the young men and women into technologically up to date, socially conscious and morally sound individuals by providing an inspiring environment of learning for the welfare of the society

VISION OF THE DEPARTMENT:

Emerge as a center for quality education and research, to grow in pace with the rapidly changingtechnologies and create Electronics and Communication Engineers capable of accepting new challenges for the service of mankind.

MISSION OF THE DEPARTMENT:

- Impart quality education based on the curriculum, contemporary technologies, value based education that helps students groom into a highly competent Electronics and Communication Engineer
- Constantly motivate students and faculty members to generate ideas and accept the challenges to provide solution for social needs and to endow competent professionals to undertake research and developmental activities.
- Promote academic growth for students by encouraging post-graduate and research programs.



VINITHA B ELZA HOD,ECE

FROM DESK OF HEAD OF DEPARTMENT GREETINGS TO STAFF AND STUDENTS

"Do what you can, with what you have, where you are."

All great things happen with a very small spark of a thought-into-action. The department completes another year of success in togetherness with the faculty and students. When something is important we do it, even when the odds are not in favour. Let the success and growth go hand-in-hand.

I appreciate all my family staff members and students for the deep and sincere efforts in every little and big work they left an impression to make it a success.

Marian Centre of Excellence in AI & ML



OBJECTIVES:

- Provide training, facilitate self –learning and enhance skills of students.
- Bridge the gap between industry and academia.
- Foster the spirit of learn-to-work at the early student-ship.



MoU Signed by UST with Marian Center of Excellence on 16-9-2021

Department of ECE established the 'Centre of Excellence (CoE) in AI& ML' in the year 2021-22. The centre functions for enhancing skillset of students in the field of AI & ML. Around 100 students registered in the centre and are undergoing training. The training programs are conducted by the following Companies UST and Accubits.

Faculty and Students of Marian Centre of Excellence in AI & ML–UST group visited UST Campus ,Technopark Phase II , on 12th May 2022. The team visited Founders Hall of UST for a session on "UST overview" by Mr. SthanuThambi. After that a Campus Tour is arranged to Infinity Lab and other facilities of UST. Students got an idea on various activities taking place there. Students got motivated through the interactive session with the industrialists of UST. They gotan insight on what industry expects from them after graduation and how they should mould themselves for the same.



An R &D lab in the field of AI & Robotics was implemented as a part of association with UST and 50% amount was sponsored by them. Sanction was accorded and an amount of Rs Two Lakhs from UST. The Industry Sponsored Lab in AI and Robotics was inaugurated on 21st June, 2022 by Honorable Minister of Transport Shri. Antony Raju.





DEPARTMENT ACTIVITIES

MoU SIGNED

The Department of Electronics and Communication and IEDC Marian has signed an MoU with GATIK GREENERGY Pvt. Ltd. As part of the MoU a 2 Day Workshop (Offline Training) was conducted for the Student Team members of GATIK on 26th and 27th November 2021.

FACULTY DEVELOPMENT PROGRAMS PARTICIPATED & ATTENDED

• Ms. Ramola Joy attended an FDP on Machine Learning for Signal Processing – A Practical Approach conducted by KGISL Institute of Technology, Coimbatore 21st Feb 2022 to 25th Feb 2022

 Ms. Subha P S attended an FDP on Machine Learning for Signal Processing – A Practical Approach conducted by KGISL Institute of Technology, Coimbatore 21st Feb 2022 to 25th Feb 2022

• Ms. Sreena V G attended an FDP on Deep learning and Neural Networks conducted by Mohandas College of Engineering and Technology from 05-07-2021 to 09-07-2021.

• Ms. Minnu Jayan attended an AICTE sponsored STTP on Artificial Intelligence & Applications conducted by Dept of CSE, Marian Engg College from 23rd Aug 2021 to 28th Aug 2021.

• Ms. Minnu Jayan attended an FDP on Robotics, Control & Application (IROB 22) conducted by Mar Baselios College of Engg: & Tech. from 4th April 2022 to 8th April 2022.

 Ms. Minnu Jayan attended an IP Awareness/ Training Program under National Intellectual Property Awareness Mission on July 12th, 2022.

Ms. Dhanya Mathew attended an FDP on Machine Learning for Signal Processing – A Practical Approach conducted by KGISL Institute of Technology, Coimbatore 21st Feb 2022 to 25th Feb 2022
Ms. Preetha S L attended an AICTE sponsored STTP on Artificial Intelligence & Applications conducted by Dept of CSE, Marian Engg College from 23rd Aug 2021 to 28th Aug 2021.

• Ms. Preetha S L attended an FDP on Robotics, Control & Application (IROB 22) conducted by Mar Baselios College of Engg: & Tech. from 4th April 2022 to 8th April 2022.

• Ms. Ann Mathew attended an FDP on Machine Learning for Signal Processing – A Practical Approach conducted by KGISL Institute of Technology, Coimbatore 21st Feb 2022 to 25th Feb 2022

 Ms. Simi M S attended an FDP on Robotics, Control & Application (IROB 22) conducted by Mar Baselios College of Engg: & Tech. from 4th April 2022 to 8th April 2022.

PROJECT FUNDING

• Projects Proposals accepted by KSCSTE for funding (2021 Batch):

- Solar Trash Collector with Water Purifier by Ms. Vinitha B Elza (Asso.Prof., ECE) and team- amount Rs 10,000/-
- Smart Consumer Alert App by Ms.Minnu Jayan (AP,ECE) and team amount Rs 15,000/-
- Smart Assistive Device for Speech Impaired- by Ms.Dhanya Mathew (AP, ECE) and team amount Rs 10,000/-
- Projects Proposals accepted by CERD for funding (2022 Batch):
- Braille Printer -by Ms. Subha P S (Asso.Prof., ECE) and team- amount Rs 10,000/-

ACHIEVEMENTS OF THE DEPARTMENT

Ms. Sreena V.G (AP,ECE), published a work on 'Study on Public Chest X-ray Data sets for Lung Disease Classification'; in conference proceedings IEEE on July 2021(Scopus indexed)

Ms. Sreena V.G (AP,ECE), published a work on 'Comparative analysis on Deep Neural Networks for Brain tumor detection' in conference proceedings IEEE on Aug 2021(Scopus Indexed)

Ms. Sreena V.G (AP,ECE), published a work on 'Automatic Uplifting of Pedestrian crossing platform using traffic congestion monitoring' in Conference proceedings IEEE, September 2021(Scopus indexed) Abhyshek (2018-2022) of S8 ECE was a member of team Cavallo which bagged three awards (Furure Award, Endurance Testing Award & Business Plan Award) at the Indian Karting Race held at Noida in Jan 2022.

Ms. Sreena V G, Ms. Vinitha B Elza, Ms. Minnu Jayan C, Ms. Dhanya Mathew, Ms. Ann Mathew, Ms. Subha P S and Ms. Ramola Joy are pursing their Ph.D research work

2022 PLACEMENT STATUS OF ECE (2018-2022) BATCH

Abhyshek R	ECE	Byju's
Adithyan S D	ECE	Byju's(AS)
Devika A S	ECE	Byju's(AS)
Alka Gilbert	ECE	Byju's(AS)
Aaquib Amin Mir	ECE	Byju's(AS)
Anusree S	ECE	Byju's(AS)
Anusree S	ECE	Evobi Automations
Abhyshek R	ECE	Evobi Automations
Aaqib Amin Mir	ECE	Evobi Automations
Anoopa D S	ECE	Evobi Automations
Devika A S	ECE	Evobi Automations
Sruthy Selvan Pereira	ECE	Evobi Automations
Atish Pradeep	ECE	IBS
Anusree S	ECE	Infosys
Mridul Joshy	ECE	Quest Global
Sreenath M S	ECE	TCS
Jeevan Fernandez	ECE	UST
Roshan S	ECE	UST
Sruthy Selvan Pereira	ECE	FACE

DEPARTMENT ASSOCIATION ACTIVITIES

• The 2021-22 activities of Electronics Association was inaugurated by Ms. Sharanya Nair (Senior Designer, TVS) on 2nd September 2021.



• A talk by Placed Alumni was conducted for the final year students was conducted on 9th September 2021. Sruthi S, Amritha, Karthik, Sooraj-(2017-21 ECE Batch students) shared their experience with the students



• A Project Expo for first year students was conducted by Seniors ("EXPO-DIY") on 3rd November 2021 by Sabrish D and Aaquib Amin Mir-S7T



• A one-week training session for the juniors (2nd & 3rd year students) for the school outreach program was conducted by Final Years from 29th November to 4th December 2021





• A one-week training session for the juniors (2nd & 3rd year students) for the school outreach program was conducted by Final Years from 29th November to 4th December 2021 • An Expert talk on Digital VLSI Design was given by Mr. Nishanth S S (Senior Staff Engineer, Layout Synaptics) for the students of Dept of ECE on 15th Jan 2022

DEPARTMENT OF ELECTRONICS & COMMUNICATION

The Electronics Association organizes... An Expert talk on,



On 15/01/2022, Saturday, 10.00am to 11.00am. All students in ECE department are invited. Nisanth S.S., Senior Staff Engineer, Layout Synaptics

TRANSFORMATION IN HIGHER EDUCATION AND UPCOMING TRENDS



- An awareness session about GATE Exam and its prospects was conducted on 17th March 2022, for the students of S8T. The session intended to give the insights of various job opportunities in government sector other than college placements. Mr. Rajesh P S (Manager-HR & amp; Administration, CGP Career Avenues) was the resource person

• Expert Talk by Mr. Vimal on various topics Intelligence, Value of Human Life , Value Engineering, Design Thinking and Future Tech with blend of Electronics, IT and Computer Science. On 13th July 2022.

• As part of Dept of ECE Outreach program, the students of the Dept. of Electronics and Communication visited various schools in Trivandrum during the month of December 2021, to provide hands-on-session for the students of 11th standard on various electronics circuits.

• A DIY Project Exhibition for Higher Secondary School Students was conducted on 5th March 2022, to create aware on Electronics, Robotics, IOT, etc among school students







ON 5TH OF MARCH 2022



• An awareness session on Transformation in Higher Education and Upcoming Trends was given by Ms. Mohana Rajan to the students of ECE on 22nd Feb 2022





• On 11th July, 2022, Mr. Maneesh T (AP,ME, Mechatronics Club) organized an Arduino workshop for the 2019-2023 ECE students as part of their Mini Project doubt clearance session.



On 28th June, 2022 Dr. L. Binu (Asso.Prof.-ECE, CET)- Expert Judge for MTIC -2022, selected "Braille Printer" as the Best Project of 2018-2022 ECE , as part of Marian Technology Innovation Contest (MTIC-2022)







DEPARTMENT OF ELECTRONICS & COMMULCATION ENGINEERING MARIAN ENGINEERING COLLEGE

PROJECT - 2022 B. Tech ECE - 2018-2022 Batch

Vishal Vijayakumar



IOT BASED PORTABLE VENTILATOR

IOT BASED MONITORING SYSTEM FOR

POWER CONSUMPTION AND POWER FAILURE DETECTION JithinM.S, Atish Pradeep , Nikhil BS,

Anandu V S, Abhith P. G, Sneha Sumesh



IOT FACE RECOGNITION AI ROBOT

Aaqib Amin Mir, Achuvijayakumar, Devika A.S, Sreenath M.S



ADVANCED STABILITY CHAMBER

Roshan S, Anusree S, Aleena Newton, Mridul Joshi



ELECTRONICS & COMMUICATION ENGINEERING MARIAN ENGINEERING COLLEGE

DEPARTMENT OF

PROJECT - 2022 B.Tech ECE - 2018-2022 Batch

> UNDERWATER DATA TRANSMISSION USING LI-FI

Abin Clement, Alfin S, Arun S Nath, Jeevan Fernandez



BRAILLE PRINTER

Abhyshek R, D. Sabrish, Alka Gilbert, SruthySelvan Pereira



MACHINE LEARNING BASED OBJECT RECOGNITION SYSTEM AS A BLIND AID

Ashwin Ouseph, Jenifar R, Shiva G



DELIVERY DRONE

Nihal Ahmed, Swarna S, Adithyan S, Anoopa D S

Short Motivational Stories For Students

1. Why you want to be successful?

You should be in a better position compared to others. But chances for those achievements can only be possible if you have the thoughts of being a better person always. And what should you do about this? Ask yourself always for new ways.

In this fast Generation, you must have significance and everyday growth is also important. Educate yourself....If you gain knowledge of everything may be some day you'll get what you want. Having big dreams can't give you success...You should do more hard work for you'r dreams and goals...And this success gives you everything.

2. SMART GOALS



If you ask most people what is their one major objective in life, they would probably give you a vague answer, such as, "I want to be successful, be happy, make a good living," and that is it. They are all wishes and none of them are clear goals.

Goals must be SMART:

1. S--specific. For example, "I want to lose weight." This is wishful thinking. It becomes a goal when I pin myself down to "I will lose 10 pounds in 90 days."

2. M--must be measurable. If we cannot measure it, we cannot accomplish it. Measurement is a way of monitoring our progress.

3. A--must be achievable. Achievable means that it should be out of reach enough to be challenging but it should not be out of sight, otherwise it becomes disheartening.

4. R--realistic. A person who wants to lose 50 pounds in-30 days is being unrealistic.

5. T--time-bound. There should be a starting date and a finishing date.

4. Practice makes a man perfect



3. Never give Up, We all have Powers



"Never Give Up, We all have Power"

Once there was a girl who wanted dream big. That girl wanted to see her bright future and she used to imagine herself as a writer, influencer and motivational speaker.

She couldn't get enough inspiration from others because they always said her "You cannot write a word even, how would you write inspirational line" to inspire others.

It broke her heart but she didn't give up as she listened once from her teacher

"Never give up, we all have powers"

She used to think that I have power, I can do this. But then she remembered negative comments from people.

And then she wrote a line on the paper..

"Never focus on what people say, focus on your dream, enthusiasm and light coming from your inside"

And after writing this line she sparkled and smiled!

She never knew that she could write beautiful motivational line.

Then she worked on it and told people that "No one is weak, no one is feeble and everyone has a shine, everyone has a power within oneself.

"First think, then do, then work hard and at last prove"

She wrote these lines in the of her story which was admired by writers and people!

Once upon a time there was a shopkeeper living with his son. Every day he sell some snacks . He uses some papers to make some paper bags for his snacks shop. He put some snacks in that paper bag and sells it .

One day he said his son to make a paper bag. His son said that, I don't know how to make paper bag. But his father said see, how iam doing! Make it like how I make.

But his son said, I don't know how to make and he asked his father to teach how to make that. But his father said I can't teach you but you should make bags by watching how I'm doing with a angry voice.

Suddenly the father's friend came to his shop and saw his friend scolding his son.

Then his friend said can we three go to the beach? The father said ok . After reaching the beach, his friend asked the son s father to go and swim in the beach . Then the father said that, I don't know "how to swim" . Then his friend said to the father s son to swim . Then his son started swimming . Then his friend said ,see your son and start swimming. He blinked and said how I swim just by watching without learning. Then his friend replied, yes that's right, with good practice only you can swim. Like that if you give some practice to your son he can learn how to make bags for your shop.

The father finally understood that

" Practice makes a man Perfect "

5. The little honey bee

Once there was small bee who was roaming around in the forest. While he was returning home he saw two humans walking with fire.

He was afraid and followed them to know why they are here. He was surprised to see them taking honey from his friend's honey comb.

He was worried and shouted," mummy mummy, where are you". His mother heard his voice and asked him what is the problem.

He said," two humans are trying to take honey from my friend's honey comb". His mother replied," yes that is happening every month". " But why are they doing this ?

We are working very hard to collect nectar from flowers, but they are easily stealing it". His mother told," dont worry my child, they can only steal our honey not our hardwork." " yes mother you are right", said the little bee happily.

6. Don't Let your value down

There was a girl lived in a village she grown in a family who believe in the hard work as days passing she was blessed with a job and the whole family fell into happiness and she went with a pride that she got a value in changing their lives.

But the only problem is she always soft at heart and dont know saying no to others things were different this time her life became hell and her decisions drive her into foolishness.

one day the scariest thing happened in her life one of the subordinate who treat her in friendly manner become wild and left her in no choice other than to support him but at her heart there is another person who she loves so much finally her love get to know things happened with her and questioned how can you do this to me though he accepted her she lost the value and in his views she always be the culprit not only to him to her family also..

Everyone now treating her badly and she get to know the value of life.. One committed mistake can change your life..

be hard some times to fight against situations...otherwise you will be the valueless at the end...entire your life

7. A Short Story on Self Confidence



There was a business executive who was deep in debt and could see no way out. Creditors were closing in on him. Suppliers were demanding payment. He sat on the park bench, head in hands, wondering if anything could save his company from bankruptcy.

Suddenly an old man appeared before him. "I can see that something is troubling you," he said.

After listening to the executive's woes, the old man said, "I believe I can help you."

He asked the man his name, wrote out a check, and pushed it into his hand saying, "Take this money. Meet me here exactly one year from today, and you can pay me back at that time."

Then he turned and disappeared as quickly as he had come. The business executive saw in his hand a check for \$500,000, signed by John D. Rockefeller, then one of the richest men in the world!

"I can erase my money worries in an instant!" he realized. But instead, the executive decided to put the uncashed check in his safe. Just knowing it was there might give him the strength to work out a way to save his business, he thought.

With renewed optimism, he negotiated better deals and extended terms of payment. He closed several big sales. Within a few months, he was out of debt and making money once again.

Exactly one year later, he returned to the park with the uncashed check. At the agreed-upon time, the old man appeared. But just as the executive was about to hand back the check and share his success story, a nurse came running up and grabbed the old man.

"I'm so glad I caught him!" she cried. "I hope he hasn't been bothering you. He's always escaping from the rest home and telling people he's John D. Rockefeller."

And she led the old man away by the arm.

The astonished executive just stood there, stunned. All year long he'd been wheeling and dealing, buying and selling, convinced he had half a million dollars behind him.

Suddenly, he realized that it wasn't the money, real or imagined, that had turned his life around. It was his newfound self-confidence that gave him the power to achieve anything he went after.



Staff Editor in Charge - Ms.Vinitha B Elza (Asso.Prof., ECE)

Student Editor in Charge - Vimal Victor (2021-2025 ECE)