

Nexus

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
<https://www.vjec.ac.in>

Programme Educational Objectives (PEO)

- Graduates will have successful career in the field of Electronics and Communication Engineering and allied sectors
- Graduates will have the ability to pursue higher studies and research
- Graduates will demonstrate entrepreneurial skills to develop innovative products and services
- Graduates will adapt to different roles in global working environment by respecting diversity and professional ethics

HOD'S DESK

PROF. DR. ANTO SAHAYA DHAS

The world is going through a tremendous positive transformation, and in education its effects are clearly discernible. We in the ECE department want to be part of this positive change utilizing our core strengths in Communication Engineering, Analog Electronics, Integrated Electronics, Artificial Intelligence, IoT, Advanced Automation and Nano Electronics. There is plenty of scope to specialize within the field, with areas of expertise including audio, visual and light electronic equipment, control systems, automation, microelectronics and telecommunications. We can see and observe the growth and researchers in Electronics and communication field. Obsolescence of technical skills is a serious concern for electronics engineers. Membership and participation in technical societies, regular reviews of periodicals in the field and a habit of continued learning are therefore essential to maintaining proficiency. So my dear Electronics engineers, update yourself day to day. You will meet the success. "Strive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it." —Sir Henry Royce, English engineer and car designer

Prof. Dr. Anto Sahaya Dhas

Head of Department
Electronics And Communication Engineering



Vision

To be a pacesetter in the field of Electronics and Communication Engineering.

Mission

- To provide quality education for the students in the field of Electronics & Communication Engineering.
- To educate students about professional and ethical responsibilities and train them to build life skills for their career development.

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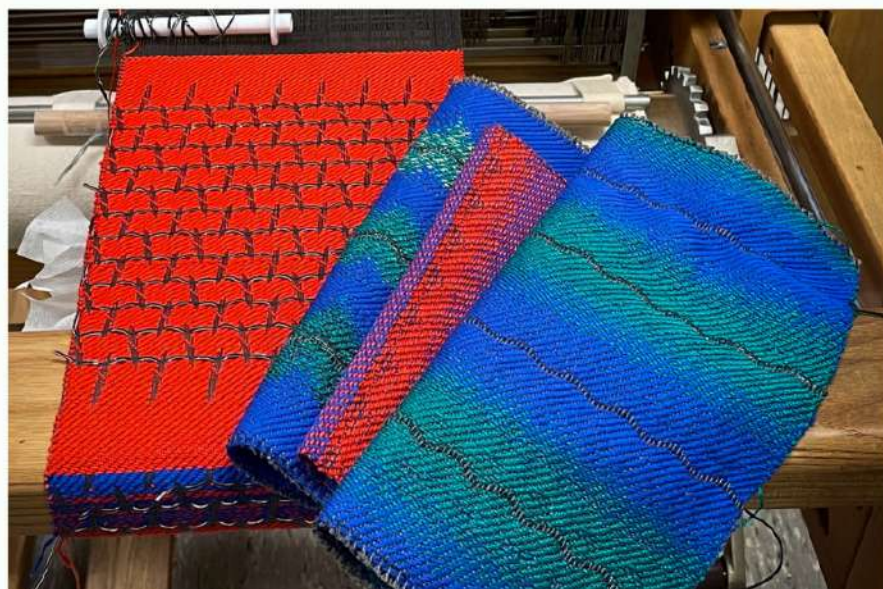
NEW ACOUSTIC FABRIC HEARS YOUR HEARTBEAT

All fabrics vibrate in reaction to audible sounds, but these vibrations are on the nanometer scale, much too small to be felt normally. The researchers developed a flexible fiber that bends with the cloth-like seaweed on the ocean's surface when woven into a fabric, capturing these inaudible vibrations. The fiber is made of a "piezoelectric" material that, when bent or mechanically deformed, provides an electrical signal, allowing the fabric to transform sound vibrations into electrical signals.



The fabric can detect sounds in a wide range of decibels, from a calm library to noisy traffic, and also detect the precise direction of quick sounds like handclaps. When woven into a shirt's lining, the fabric can detect a wearer's subtle heartbeat features. Audio, such as a recording of spoken words, can also be generated by the fibers and detected by another fabric.

Soundproofing in concert halls and carpeting in our living rooms are two examples of how fabrics have traditionally been used to attenuate or minimize sound. Fink and his colleagues, on the other hand, have been working for years to refashion fabric's traditional roles.



The team wanted to make a fabric "ear" that was soft, robust, comfortable, and could detect sound, based on the human auditory system. Their research led to two significant findings: Such a fabric would have to combine stiff, or "high-modulus," fibers to effectively transform sound waves into vibrations. In addition, the team would have to create a fiber that could bend with the fabric while also producing an electrical output.

Finally, the researchers inverted the fiber's purpose, making it a speaker rather than a sound detector. They

recorded a string of spoken words and used an applied voltage to feed the recording to the fiber. The electrical signals were transformed into sound vibrations, which a second fiber was able to detect. Yan said, "It can be integrated with spacecraft skin to listen to (accumulating) space dust or embedded into buildings to detect cracks or strains. It can even be woven into a smart net to monitor fish in the ocean. The fiber is widespread opening opportunities."

ANJALI MATHEW

VML18EC009

EVENTS CONDUCTED

- **Opportunities after engineering through GATE exam**, webinar conducted via Google Meet on 12th February 2022 from 11Am to 12PM. The webinar was conducted for 3rd and 5th semester B.Tech ECE students by Ones coaching institute, Kochi. The webinar objectives were to aware the importance of GATE Exam and career options once qualify the Gate cutoffs.
- **OBE and CO attainment calculation**, workshop organised by Internal Quality Assurance Cell of Electronics & Communication Engineering Department on 15th March 2022 from 10AM to 4PM. The resource person was Ms. LEKSHMY S. The workshop was coordinated by Dr. JAYESH GEORGE & Dr. ANTO SAHAYA DHAS.

RESOURCE PERSON

Ms. LEKSHMY S has acted as resource person in the one day workshop on OBE and CO attainment calculation on March 15 ,2022

PUBLICATION

Mr. Hashim, Dr. Anto Sahaya Dhas & Dr. Jayesh George (2022). Weapon Detection Using ML for PPA. In: Pandian, A.P., Palanisamy, R., Narayanan, M., Senjyu, T. (eds) Proceedings of Third International Conference on Intelligent Computing, Information and Control Systems. Advances in Intelligent Systems and Computing, vol 1415. Springer, Singapore.

TRAINING PROGRAMME PARTICIPATION

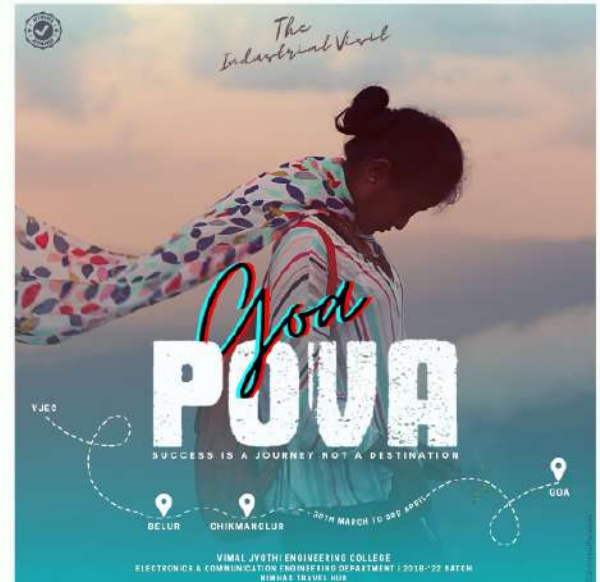
- **Ms. BINDU SEBASTIAN** has successful completion of One Week Online Faculty Development Programme on "Artificial Intelligence for IoT Services in Cloud: Techniques & Applications" organized by the Department of Information Technology from 28th Feb - 4th March, 2022.
- **Ms. GRACE JOHN M** has actively participated in the webinar on "AI & ML in Research Perspective" on 14.03.2022 Organized by the Department of Information Technology, Dr. M.G.R. Educational and Research Institute, Chennai
- All faculty members from department attended the one day workshop on OBE and CO attainment calculation on March 15 ,2022
- **Ms. ANUSHA CHACKO** has participated in five day National level Online Faculty Development Program on "APPLICATIONS OF SIGNAL PROCESSING AND COMPUTER VISION USING MATLAB AND SIMULINK" Organized by G.Pulla Reddy Engineering College (Autonomous): Kumool-518007, from 07-03-2022 to 11-013-2022.
- **Dr. JAYESH GEORGE, Ms. ANUSHA CHACKO & Dr. REEMA MATHEW** has participated in the One Week Online Faculty Development Programme on "Advances in Natural Language Processing using AI" organized by the Department of Computer Science and Engineering in association with the Computer Society of India (CSI) from 14 March 2022 to 18 March 2022.

UPCOMING EVENTS

NATIONAL BOARD OF ACCREDITATION (NBA) visit commenced on May 6,7 and 8. NBA is one of the two major bodies responsible for accreditation of higher education institutions in India, along with the National Assessment and Accreditation Council (NAAC). The department is eagerly waiting for the NBA visit.

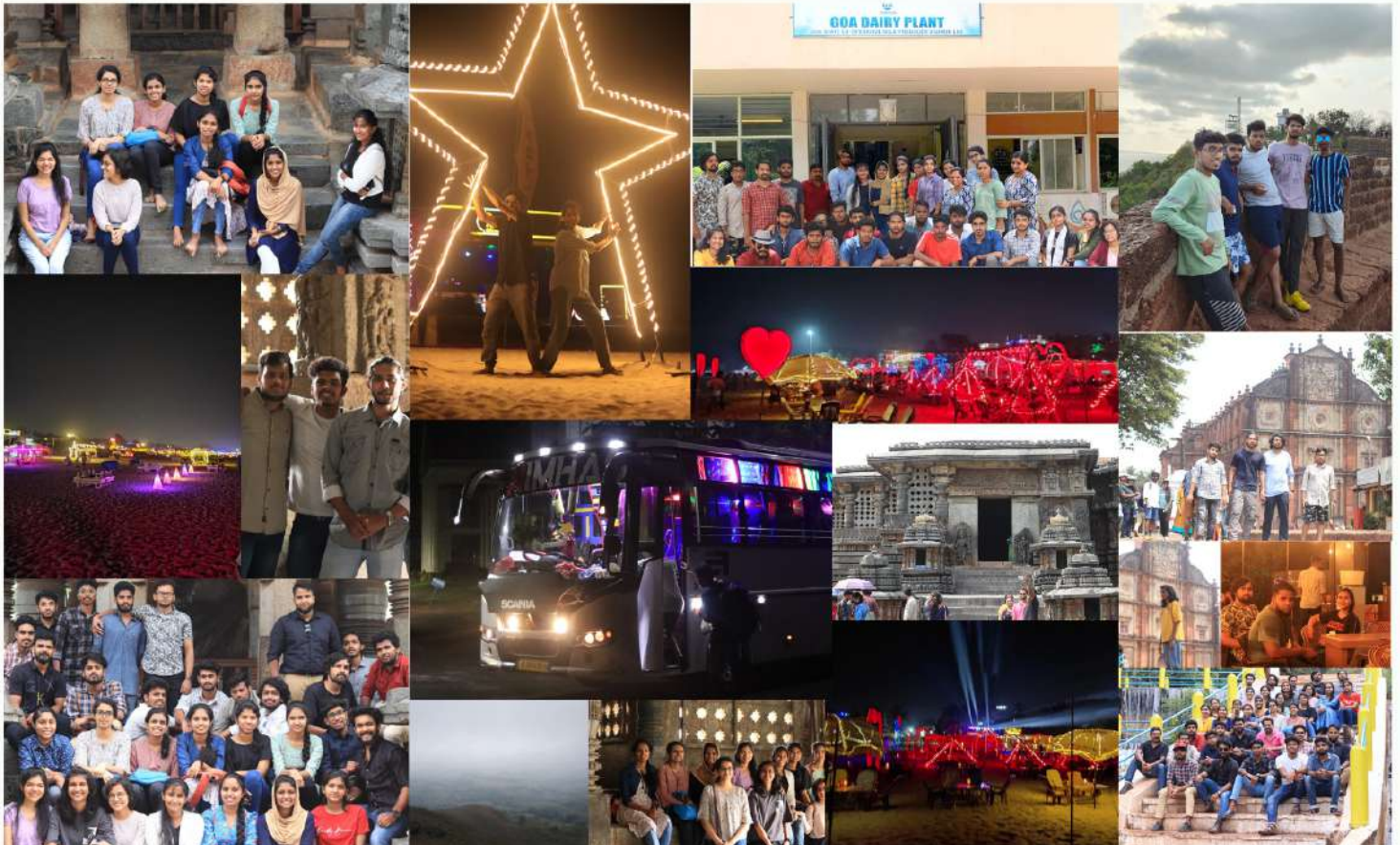
INDUSTRIAL VISIT

Industrial visit is considered as a part of curriculum, mainly seen in engineering courses. Objectives of industrial visit are to provide students as insight regarding internal working of companies. The aim is to go beyond academics; industrial visit provides students a practical perspective on the world of work .It provides students with an opportunity to learn practically through interaction, working methods and employment practices. It gives them exposure to current work practices as opposed to possibly theoretical knowledge being taught at college. Industrial visit provide an excellent opportunity to interact with industries and know more about industrial environment. Industrial visits are arranged by colleges to students with an objective of providing students functional opportunity in different sectors like IT, manufacturing service, finance and marketing. Industrial visit helps to combine theoretical knowledge with industrial knowledge. Industrial realities are opened to the students through industrial visit.



DATE: 30th March 2022 to 3th APRIL 2022
LOCATION: BELUR, CHICKMANGLORE AND GOA
INDUSTRY: GOA DAIRY, ZEPHYR BIOMEDICALS

As part of Kerala Technical university curriculum, the S8 ECE (2018-22) students of Electronics and communication department visited GOA DAIRY & ZEPHYR BIOMEDICALS as a part of 3 day IV to get an exposure to the industrial environment. Hence in this regard the above mentioned industry acknowledged our request to visit the facility and permission were granted to visit on 1st APRIL 2022. The contingent visiting the facility comprised of 30 students include 5 staffs.





*May this festival fill your life with blessings of
wellbeing and happiness*

*We, the department of ECE wishes you a very
happy vishu*





HAPPY



Easter



GOODNESS TO YOU



*May your Easter basket be full of Joy, Happiness
& Peace Today and Always*

Happy Ramadan Kar eem



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(S8 ECE)

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