

# NEXUS

Department of Electronics And Communication Engineering  
Vimal Jyothi Engineering College, Chemperi  
<https://www.vjec.ac.in>

## 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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## HOD'S DESK

PROF. DR. ANTO SAHAYA DHAS

It gives me immense pleasure to note that another edition of NEXUS is ready for launch. Truly, irrespective of class or cadre or calibre, it is the dynamism and pervasiveness of the vision that can lead to sustainable excellence. The big theme today is to focus on creativity and innovation alongside academics. Electronics and Communication engineering is changing the way we think and work, and plays a significant role not only in solving different kinds of engineering and technological problems but also in satisfying societal needs such as health care. Consequently, great advances have taken place in the field of Electronics and Communication engineering, bringing together the understanding of the scientific and technological foundations of Chip integration, the concepts of software and hardware as well as those of communication technologies. The present newsletter attempts to present the Department and its activities for general information. "As engineers, we were going to be in a position to change the world - not just study it." - Henry Petroski

Prof. Dr. Anto Sahaya Dhas  
Head of Department  
Electronics And Communication Engineering





# Nano-scale discovery could help to cool down overheating in electronics

## ARTICLE

When you shrink down to very small scales, heat doesn't always behave the way you think it should. Now, new findings from the nano realm could help researchers to gain a better handle on the flow of heat in electronic devices. A team of physicists at CU Boulder has solved the mystery behind a perplexing phenomenon in the nano realm: why some ultra-small heat sources cool down faster if you pack them closer together. The findings could one day help the tech industry design faster electronic devices that overheat less.

"Often, heat is a challenging consideration in designing electronics. You build a device then discover that it's heating up faster than desired," said study co-author Joshua Knobloch, postdoctoral research associate at JILA, a joint research institute between CU Boulder and the National Institute of Standards and Technology (NIST). "Our goal is to understand the fundamental physics involved so we can engineer future devices to efficiently manage the flow of heat." The research began with an unexplained observation: In 2015, researchers led by physicists Margaret Murnane and Henry Kapteyn at JILA were experimenting with bars of metal that were many times thinner than the width of a human hair on a silicon base. When they heated those bars up with a laser, something strange occurred. "They behaved very counterintuitively," Knobloch said. "These nano-scale heat sources do not usually dissipate heat efficiently. But if you pack them close together, they cool down much more quickly." In the new study, they used computer-based simulations to track the passage of heat from their nano-sized bars. They discovered that when they placed the heat sources close together, the vibrations of energy they produced began to bounce off each other, scattering heat away and cooling the bars down.

The group's results highlight a major challenge in designing the next generation of tiny devices, such as microprocessors or quantum computer chips: When you shrink down to very small scales, heat does not always behave the way you think it should.

"Nanotechnology is an idea that most people simply didn't believe"

RALPH MERKLE



ANGITHA N  
S4 ECE



# PUBLICATIONS

Mr Manoj K C and Dr. Anto Sahaya Dhas presented a research paper titled "REVIEW ON BRAIN TUMOR MALIGNANCY PREDICTION BY 3D RECONSTRUCTION" in the AICTE sponsored 2021 2nd International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS) technically sponsored by IEEE Kerala Section and hosted by Department of Electronics and Communication Engineering, Adi Shankara Institute of Engineering and Technology, Kalady, Ernakulam, India during September 2 - 4 , 2021

## FDP

- Mr Vinod J Thomas attended a KTU sponsored 5 day FDP on AI and data science: A pedagogical approach from 9th -13th August 2021 ,organised by the department of ECE, St. Joseph's college of engineering and technology Palai.
- Dr Reema Mathew attended the 5day ATAL FDP on Intelligent Computing in Healthcare, Organised by NIT Raipur
- Mr Vinod J Thomas Participated and successfully completed the 5 day online FDP on the theme "Inculcating Universal Human Values in technical education" organised by AICTE.
- Mr Vinod J Thomas attended one day online workshop on "How to conduct student induction program" on 20th September 2021 , organised by AICTE.
- Miss Bindu Sebastian attended 5 day FDP on AI and Data Sciences: A pedagogical Approach organised by the department of ECE, St. Joseph's college of engineering and technology Palai.
- Miss Bindu Sebastian participated AICTE sponsored second international conference on Advances in computing, Communication, Embedded and secure systems, organised by the department of ECE. Adi Shankara Institute of Engineering and Technology
- Mr Jithin James attended 5 day ATAL FDP on MEAN Stack Technologies organized by Sree Vidyanikethan Engineering College, Tirupati
- Mr Jithin James attended 5 day ATAL FDP on Recent Advancements in Automatic Speech Recognition and Speaker Verification organized by National Institute of Technology, Sikkim
- Miss Jerin Yomas attended Faculty development program on AICTE incorporating Universal Human Values in Education.

## RESOURCE PERSON

Dr. Anto Sahaya Dhas

As a resource person to Kannur Dental College to conduct an eye opening session about "NAAC Accreditation" on 16.09.2021.



# Teacher's Day Celebration

5TH OF SEPTEMBER

Guru-Shishya tradition is going on in our country for centuries. Under this tradition, the guru gives education to his disciple. The word gu means darkness (ignorance) and the word ru means light (knowledge). In this way, the one who dispels the darkness of ignorance and Text spreads the light of knowledge is called a Guru, Guru has great importance in our life which is well known.

A teacher is a gift from God who always imparts knowledge of good and bad to the children in a non-discriminatory nature without any selfishness. After the parents, it is the teacher who lays the foundation for moulding the children in the right form.

Teachers are the pillars of society. They are the building blocks of the nation's future. They inspire us to bring about the best in ourselves and serve the country. Without teachers, there is no lawyer, no doctor, no IAS officer, no researcher, and no astronaut. Teachers support us and guide us through our path towards a brighter future.

As it says, Life is the greatest teacher of all. Life teaches us the art of survival. Teachers are not only academic teachers. In fact, our very first teachers are our parents who teach us to walk, eat, and speak. Then comes nature, our friends, our siblings, and many others. Today is the day to acknowledge each teacher of our lives. They taught us how to fight and stand once again when we fail

“The purpose of education is to make good human beings with skills and expertise. Enlightened human beings can be created by teachers”

DR APJ ABDUL KALAM





# PTA Meetings

- S2 and S4 ECE Conducted Advisory meeting on 02/09/21 and 05/09/21 through online mode
- S2 and S4 ECE Conducted PTA meeting on 10/09/21 through online mode

# Congratulations

Research Guideship Approved by KTU  
Dr Jayesh George and Dr Reema Mathew

# Placement

TCS Shortlisted Students

- Abhilash C
- Anjali Mathew
- Anjitha Satheeshan
- Malavika Victor
- Yethul Sidharth

# Upcoming Events

- The International Conference on IoT, Computer Communication, Electrical and Electronics Technology (ICICCEET-2022) will be held as online mode (Vimal Jyothi Engineering college, Kannur, Kerala, India) on 4th & 5th March 2022. The objective of ICICCEET-2022 is to present the emerging trends related to Electronics, Communication, Computer science, Electrical Engineering and their allied fields. The aim of the conference is accelerate basic science, innovation for the development and application of technology. It also aims to provide a platform to the researchers from both academia as well as industry to meet and share cutting-edge development in the IoT, Computer Communication, Electrical and Electronics in line with the conference theme "Technology for Sustainable Future".



The poster for ICICCEET-2022 features a central image of Vimal Jyothi Engineering College. It includes logos for IETE and the college, and text detailing the conference's vision, mission, dates, and organizers.

**IETE Sponsored**  
**ICICCEET-2022**  
International Conference on IOT, Computer Communication, Electrical and Electronics Technology

**4th & 5th MARCH 2022**

**VENUE**  
ONLINE PLATFORM

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

**Organized by**  
Electronics and Communication Engineering Department  
VIMAL JYOTHI ENGINEERING COLLEGE  
JYOTHI NAGAR, CHEMPERI  
KANNUR, KERALA, INDIA

[WWW.ICICCEET.COM](http://WWW.ICICCEET.COM)

# Upcoming Events

- Department of Telecommunications, Government of India, with its office in Ernakulum (Kerala Licensed Service Area), proposes to conduct a webinar for Students on 5th Generation Mobile Communications. The Webinar for Vimal Jyothi Engineering College, has been scheduled on 12th October 2021 at 02pm. The Webinar will be of 1.5 hrs duration.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEO)



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

## EDITORIAL BOARD



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