



ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

DHWAM



Department Vision

• The Department of Electronics and Communication Engineering strives to be a center of repute by imparting quality education to produce globally competent graduates with human values.

Department Mission

- Create conducive environment for overall development of students
- Equip the students with technical skills to bridge the gap between academia and industry.

PROGRAMME EDUCATIONAL OBJECTIVES

- PEO I. Succeed in their professional career.
- PEO II. Apply the knowledge of Electronics and Communication to address technological problems of industry and society.
- PEO III. Demonstrate leadership qualities and exhibit professional standards.

EDITORIAL BOARD



Mr. Sandeep Prabhu M Assistant Professor Department of E&C



Mr. Balkrishna S Kini



Ms. Shubha



Ms. Sajani Kini



Ms. Sindhu Shenoy M



Dear Readers,

The department magazine "DHWANI" is ready to showcase the activities that are happening in the department. I feel privileged in presenting the edition of our department magazine. The purpose of the Magazine is to provide a platform to the students and staff to give expression to their original thoughts and thus develop an important aspect of their personality. This edition of "DHWANI" has loads of information about the department activities including interviews with our staff. It also includes the student achievements in co-curricular and extra-curricular activities. These show their ability to tune physical skills and achieve a competency in sports and games.

I take this opportunity to thank all those authors who have contributed the articles and the members of the editorial board and designers. Lastly, I would like to place on record my gratitude and heartfelt thanks to all those who have contributed to make this effort a success.

What Department Head Says



Dr. Dayananda G K

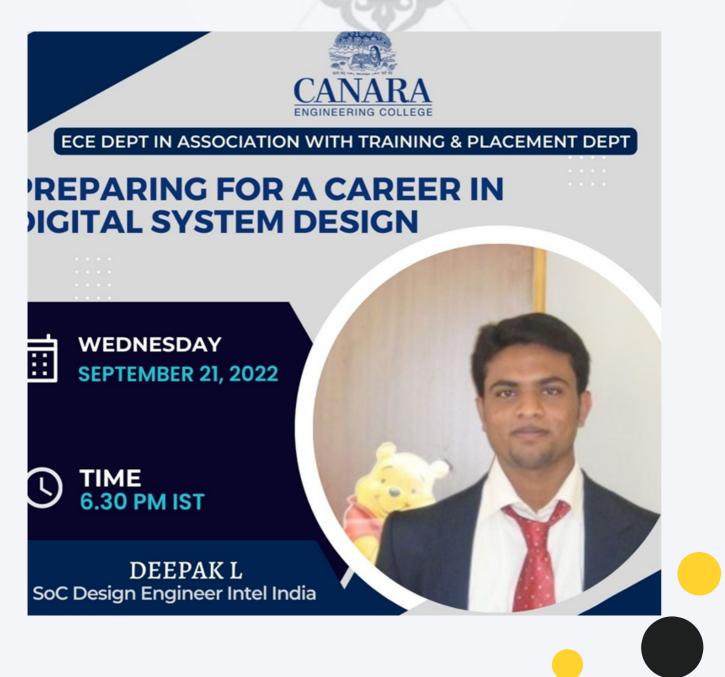
I am very happy to pen down the foreword for the Volume 13, Issue 1, Feb 2023 edition of our department newsletter "Dhwani". True to its name Dhwani-voice of Electronics and Communication Engineering Department, has been diligently recording and broadcasting events in the department. I wish to thank all committee coordinators and team ECE for valuable contributions to the department.

This Year has been particularly fulfilling with our students and staff shining bright in various events and activities like – Acing the International Project competition, Conferences. Thanks to our special alumnus Mr. Gopalakrishna Bhat Kakunje we had our first in-house incubator in our ECE Dept R&D Lab where we could design and fabricate a lot of boards for our student projects. I particularly wish to place on record my gratitude to our alumni for helping the department in many ways, be it conducting Mock interviews, donating laptops, giving job and internship referrals to students, talks and coming back to their alma mater giving their precious time for suggestions and inputsetc.

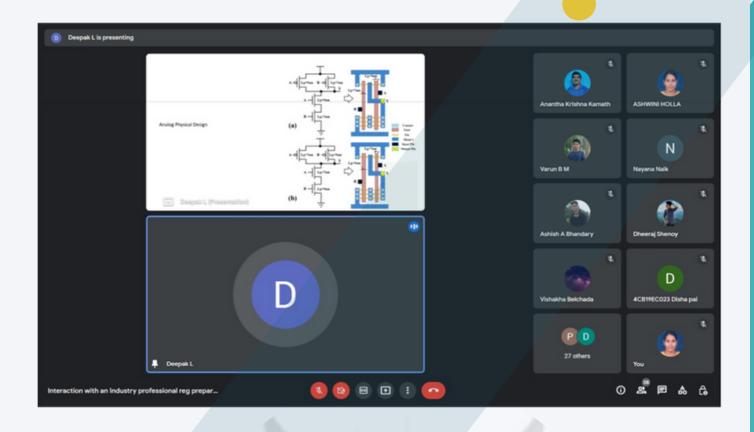
DEPARTMENT ACTIVITIES

• Talk by Mr. Deepak L on Preparing for a career in Digital System Design 21/09/2022

A talk on how to prepare for companies in ECE stream specifically those that focus on IC design was conducted by the department of ECE in association with Placement and Training Department was arranged. Speaker chosen was based on domain expertise in Chip Design. Mr. Deepak L is a Senior Engineer System on Chip Design at Intel India. The address was in Virtual Mode at 6:30 PM on September 21st, 2022. The talk was well received by 92 participants. Mr. Deepak started with problem and design approach and took the audience through various phases of fabrication explaining the nuances involved in IC design and the various Job roles and the skill requirements therein. He then went on to talk regarding the method adopted to prepare for placements in this domain as the process can be very exhaustive.



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• IEEE Day Technical Talk by Dr U C Niranjan on Microprocessor Architectures 12/10/2022

A talk on various Microprocessor Architectures was arranged by ECE Department in association with IEEE Student Branch with Dr. UC Niranjan Director Research and Training Manipal Dot Net as the speaker in the backdrop of IEEE Day in Virtual Mode at 6:30 PM on Oct 12th, 2022. The talk was well received by 98 participants. Dr. UC N as he is popularly called, started with processor architectures and went on to talk of his involvement with some family of processors used for image and video applications and went on to explain the joy of entrepreneurial journey at Manipal Dot Net



IIEEECan STB 65001 In association with WiE Bangalore Section and EAC Bangalore section

IEEE DAY LECTURE:

PROCESSOR ARCHITECTURES AND

APPLICATIONS

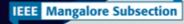


WEDNESDAY
OCTOBER 12, 2022



DR NIRANJAN U C
DIRECTOR R&T MDN







• IEEE Xtreme 16.0 – 24-hour Hackathon 22/10/2022

IEEEXtreme is a global challenge in which teams of IEEE Student members – advised and proctored by an IEEE member, and often supported by an IEEE Student Branch – compete in a 24-hour time span against each other to solve a set of programming problems that start at 0:00 Hrs UTC (5:30 AM IST). Xtreme 16.0 Statics:22nd to 24th October 2022, 14683 Participants from 65 Countries 6376 teams of which 2992 Teams from 676 Student Branches participated. IEEE Student Branch Canara Engineering College Proctor –Dr. Vasudeva Acharya SMIEEE – 2 teams on invite and Prof Ashwini V R, Senior Member IEEE, and Branch Councilor. This has been the 6th consecutive year that the SB has been conducting this event. The 22 participants were treated to a fine challenge on Onam Celebrations with a T Shirt – Courtesy of the student branch.

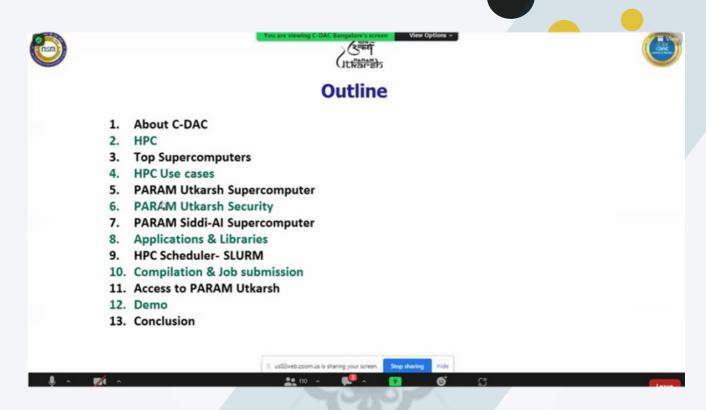


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• Talk with Demo on PARAM Utkarsh 23/12/2022

119 Students benefited from the Talk with demo onPARAM UTKARSH Supercomputer and benefit proposition for students and MSMEs, PARAM Utkarsh is a High performance Computing HiPC system setup at C-DAC PARAM Supercomputing Facility (CPSF), Bangalore - equipped with 50,000+ compute cores (CPU & GPU), it offers peak computing power of 838 Teraflops. The virtual deep dive lecture was conducted at 7 PM on zoom platform. The talk was resourced by Ms.Divya M, Associate Director ESPF CDAC Bangalore and Mr.Shreekanth, Senior Engineer ESPF CDAC Bangalore. The first resource person gave an idea reg requirements need and parallelization involved in High Performance computing and the second resource person spoke more reg the demonstration of a simple task run remotely on PARAM UTKARSH. The talk was well received.





Department Association activities

Activities organized in association with AIMZ

• Farewell

A farewell ceremony organized in ECE department, Canara Engineering College On 24/07/2022 for final year students. Third year and second year students were the host of the function. The function began at 2 pm with welcoming the HOD of the Department. HOD Dr. Dayanand G K, delivered a speech in which he wished bright future to all the outgoing students. Some of the Faculties, Final year students and juniors shared their views and experiences they had together. Then the cultural activities began. The students gave amazing performance like singing and dancing, Juniors gave fancy tittle for some of the final year students suiting to their personalities. The snacks are served to all and the function came to an end at 5pm



The audience of the function



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Third year student sharing his experience

• First and Second Place in Electrica by IEEE NITK SB 30/10/2022

Two teams from ECE Dept, won the first and second places in Hardware Power Electronics Hackathon ELECTRIKA organized by IEEE NITK student branch Questions revealed on Oct30th 12 PM and 1st round submission on 2nd and shortlisted teams were interviewed on 4th Nov, for the- Final hardware round. 1st Prize winners were: 1 Krithik S Kotyan, Ananth S Shanbhag, Ashwin K S and Abhijith A while the second prize winners were the team comprised by Aditya P, Sameer Hegde, Chethan Bhat B S and Rahul Nayak. Mode of conduction Online

Scholarships and recognitions

Scholarship from IEEE Bangalore Section

Mr. Bharat H M a student from final year ECE was selected for the IEEE Bangalore Section Scholarship. Ten scholarships were announced for deserving candidates based on CGPA, family income, aptitude for volunteer ship, learning, spirit of IEEE and branch counselor recommendation. Bharath H M is also the Chair of IEEE Student branch.





Activities under R and D Team

• R and D team has successfully designed and built multi-controlled Electronic Wheelchair. This chair moves with the help of joystick as well as using gesture. It is a part of final year project and funded by the institute. The prototype was satisfactorily completed on 28/12/2022. This wheelchair helps old aged and people who face difficulty to walk to commute inside our academic block.



• R and D team has sent 19 shortlisted students for international Ideation competition held at Shri Madhwa Vadiraja Institute of Technology and Management Udupi on 10/12/2022. Ideas taken up by our students were on Animation and Gaming, Cloud Computing in Disaster Management and safety, E-vehicles, Predictive Healthcare and Technology Based Agriculture for preparedness. We are proud to share that 10 teams from ECE Department were selected for final round and Ms. AmelRayazBailur and Ms. Nisha Shetty won 2nd Prize in IDEATHON Competition.





- R and D team successfully designed and built Two Li-ion Battery packs for refurbished UPS, as a buck-up power source for internet switch and 3D printer in the absence of Central UPS. The Prototype was satisfactorily completed on 21-10-2022.
- R and D Team has sent 8 projects to exhibit in "Science Mela International Cultural Jamboree 2022" during 21-12-2022 to 27-12-2022.

Following are the projects sent –

- 1. Pathole detection
- 2. Automatic tomato sorting machine
- 3. Automatic Rehabilitation gloves.
- 4. Nanhe kadam Learning kit for special child
- 5. Dristikon A Self learning Braille kit
- 6. Chemical Free Mosquito rappeler
- 7. Aid for visually challenged people.
- 8. Vehicle Number plate recognition system

Out of which, Nanhe kadam has won first price and Automatic Rehabilitation gloves has won second price.













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• One team from 5th sem has participated in SMART INDIA HACKATHON in association with Ministry of Education, government of India held in Tamil Nadu during 26-08-2022. This team has won an amount of 1 Lakhs rupee. In addition to this, Ministry of Education's Innovation cell has extended their support for the implementation of winning solution in the SIH at a central ministry, state ministry, or Govt. Department. The duration for development and implementation of the project is expected to be between 6 months to 1 year.



• One of the final year project named Nanhe Kadam is appreciated by the principal of speech and hearing from Fathers Muller hospital, Mangalore with their interest to have MOU to continue this project.



Student Achievements

Academic Excellence of Third- and Final-year students

Toppers

Third Year



4CB20EC052 Ms. Shubha Sudesh Shetty CGPA-8.90

Final Year



4CB20EC017 Ms. Krupali CGPA-8.66



4CB20EC53 Ms. Sindhu Shenoy M CGPA - 8.59



4CB19EC051
Ms. Poornima Vinod Shanbhag
CGPA – 9.19



4CB19EC061 Ms. SajaniKini CGPA – 8.88



4CB19EC010 Ms. B H Akshatha Pai CGPA – 8.61



4CB19EC038 Mr. M Giridhar Bhandary CGPA – 8.66



4CB19EC033 Ms. Jeevitha CGPA – 8.35



4CB19EC039 Ms. Madhushree N CGPA – 8.6

Staff Achievements

- Mrs. Savitha Acharya, Assistant Professor Co-authored a book on 'Basics of Embedded Systems' in Amazon.in kindle Store
- Mrs. Jayashree K, Assistant Professor published paper in International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering on the topic "Visualizer: An aid for Visually Challenged" in September 2022
- Mrs. Jayashree K, Assistant Professor secured Elite+Silver certification in the course Learning Analytics tools with a consolidated score of 83% held during Jul-October 2022
- Mrs. Jayashree K, Assistant Professor secured Elite+Silver certification in the course Introduction to Machine Learning with a consolidated score of 77% held during July-September 2022
- Mr. Anantha Krishna Kamath, Assistant Professor published paper in International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering on the topic Visualizer: An aid for Visually Challenged in September 2022

- Mr. Anantha Krishna Kamath, Assistant Professor secured Top 5% in the course Learning Analytics tools with a consolidated score of 92% held during Jul-October 2022
- Mr. Anantha Krishna Kamath, Assistant Professor secured Top 5% in the course Introduction to Machine Learning with a consolidated score of 88% held during July-September 2022
- Mrs. Akshatha G Baliga, Assistant Professor presented Paper on "Dictowriter: Speech to Text Plotter" in International Conference VSPICE held on 22nd to 23rd December 2022 held in NMAMIT, Nitte
- Mr. Sandeep Prabhu M, Assistant Professor, published a patent Smart Integrated IOT and ML Based Safety System for Monitoring Elderly Wandering People Published, Application Number 202241047519, Journal Number 34/2022, Journal Date 26/08/2022 IPO
- Mr. Sandeep Prabhu M, Assistant Professor published a paper in Scopus Indexed Journal of Positive School Psychology titled "Machine Learning for IOT Health Care Application" Volume 6, Number 8, August 2022, Page No 4025-4037
- Mrs. Ashwini K G, Assistant Professor secured Top 5% in the course Learning Analytics tools with a consolidated score of 87% held during Jul-October 2022
- Mrs. Ashwini K G, Assistant Professor Co-authored a book on 'Basics of Embedded Systems' in Amazon.in kindle Store
- Mrs. Rajitha A A, Assistant Professor published paper in International Journal on the topic "An Automated IOT Enabled Sprinkler Irrigation System", December 2022
- Mr. Divyesh Divakar, Assistant Professor published a patent titled "Cloud Based IOT Smart and Accurate Traffic Monitoring System in Real Time Applications for Developed Countries to Reduce Traffic Related Issues" in October 2022

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- Mr. Divyesh Divakar, Assistant Professor published paper in International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering on the topic Visualizer: An aid for Visually Challenged in September 2022
- Mr. Divyesh Divakar, Assistant Professor presented the paper entitled Simulation of the International Standard Atmosphere for Flight Reference in IEEE International Interdisciplinary Humanitarian Conference for Sustainability (IIHC-2022) held on 18th and 19th November 2022
- Mr. Divyesh Divakar, Assistant Professor presented the paper entitled Experimental Study on the Effect of Thermo Electric Cooler in Power Electronic Devices in the International Conference on Advances in Renewable Energy and Electric Vehicles during 22nd and 23rd December 2022
- Mr. Divyesh Divakar, Assistant Professor secured Top 1% in the course Learning Analytics tools with a consolidated score of 92% held during Jul-October 2022
- Mr. Divyesh Divakar, Assistant Professor Co-authored a book on 'Basics of Embedded Systems' in Amazon.in kindle Store
- Mr. Divyesh Divakar, Assistant Professor Co-authored a book on 'Electromagnetics - Fields made simple' in Amazon.in kindle Store
- Mr. Divyesh Divakar, Assistant Professor secured Top 1% in the course Introduction to Machine Learning with a consolidated score of 88% held during July-September 2022
- Mr. Manjunatha I R, Assistant Professor presented Paper on "Dictowriter: Speech to Text Plotter" in International Conference VSPICE held on 22nd to 23rd December 2022 held in NMAMIT, Nitte
- Mr. Anand Bhat B, Assistant Professor presented a paper titled "Experimental Study on the Effect of Thermo Electric Cooler in Power Electronic Devices" in the International Conference on Advances in Renewable Energy & Electric Vehicles (AREEV-2022) under the aegis of ICETE-2022 multi-conference platform organized by the Department of Electrical & Electronics Engineering, NMAM Institute of Technology, Nitte during 22nd and 23rd December 2022



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Mr. Ramesh E, Assistant Professor presented a paper titled 'Experimental Study on the Effect of Thermo Electric Cooler in Power Electronic Devices' in International Conference On Advances in Renewable Energy & Electric Vehicles (AREEV-2022) organized by the Department of Electrical & Electronics Engineering, NMAM Institute of Technology, Nitte during 22nd and 23rd December 2022

Workshops/FDP attended

- Mrs. Savitha Acharya, Assistant Professor attended 4-week Lab Workshop on 'VLSI Fundamentals' from 19th Sept 15th Oct 2022, jointly organized by Arm Education and Nielit Calicut
- Mrs. Savitha Acharya, Assistant Professor attended 5-Day workshop on "Designing and Modelling of IoT, AI & ML Systems" in Aug 2022 organized by AICTE ATAL Academy, ARM Education and STMicroelectronics
- Mrs. Savitha Acharya, Assistant Professor obtained NPTEL online certification on "Programming, Data Structures and Algorithms Using Python" from IITM in July-Sep 2022
- Mrs. Jayashree K, Assistant Professor attended FDP on "Natural Language Processing" organized by Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal from 25/7/2022 to 29/7/2022
- Mrs. Akshatha G Baliga, Assistant Professor attended FDP on "Next Generation Wireless Networks for Autonomous Intelligent Communications" organized by Sri Venkateswara College of Engineering, Bengaluru from 26/12/2022 to 30/12/2022
- Mrs. Akshatha G Baliga, Assistant Professor attended FDP on "Recent Trends in Computer Science" organized by G.Pulla Reddy Engineering College, Kurnool from 20/12/2022 to 24/12/2022
- Mrs. Akshatha G Baliga, Assistant Professor attended FDP on "Cloud Computing and its Application" organized by G.Pulla Reddy Engineering College, Kurnool from 28/11/2022 to 3/12/2022
- Mrs. Akshatha G Baliga, Assistant Professor attended FDP on "Natural Language Processing" organized by Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal from 25/7/2022 to 29/7/2022

- Mrs. Akshatha G Baliga, Assistant Professor completed 8-week NPTEL course on "Introduction to Machine learning" from July to Sept 2022
- Mr. Sandeep Prabhu M, Assistant Professor attended Five days Faculty Development Program on "Next Generation Wireless Networks for Autonomous Intelligent Communications" organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateswara College of Engineering, Bengaluru and technically sponsored by The Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26/12/2022 to 30/12/2022
- Mr. Sandeep Prabhu M, Assistant Professor attended Five days Faculty Development Program on "Recent trends in Computer Science" organized by Department of Emerging Technologies in Computer Science (ECS) held from 20/12/2022 to 24/12/2022 at G. Pulla Reddy Engineering College (Autonomous), Kurnool, Andhra Pradesh
- Mr. Sandeep Prabhu M, Assistant Professor has attended Six Days FDP on "Cloud Computing and its Applications" held between 28th November to 3rd December 2022 organized by Department of Computer Science and Engineering, G. Pulla Reddy Engineering College (Autonomous), Kurnool
- Mr. Sandeep Prabhu M, Assistant Professor participated in the Five Days Faculty Development Program on "SCILAB as per 2021 Scheme" organized by Department of Electrical and Electronics Engineering of GSSS Institute of Engineering & Technology for Women in association with ISLE from 17th to 21st October 2022
- Mr. Sandeep Prabhu M, Assistant Professor attended 5-Day workshop on "Designing and Modelling of IoT, AI & ML Systems" in Aug 2022 organized by AICTE ATAL Academy, ARM Education and STMicroelectronics
- Mr. Sandeep Prabhu M, Assistant Professor Successfully completed 12 weeks (Jul Sep 2022) online course "Introduction to Machine Learning" conducted by NPTEL, IIT Kharagpur with the consolidated score of 70% with Elite certification



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- Mrs. Ashwini K G, Assistant Professor participated in the Five Days Faculty Development Program on "SCILAB as per 2021 Scheme" organized by Department of Electrical and Electronics Engineering of GSSS Institute of Engineering & Technology for Women in association with ISLE from 17th to 21st October 2022
- Mrs. Rajitha A A, Assistant Professor attended FDP on "Cloud Computing and its Applications" held at GPREC, Kurnool from 28th Nov to 3rd December 2022
- Mrs. Rajitha A A, Assistant Professor attended FDP on "Next generation wireless networks for Autonomous intelligent communications" at SVCE from 26th to 30th December 2022
- Mrs. Rajitha A A, Assistant Professor attended workshop on "Designing and Modelling of IOT,AI and ML Systems" organized by AICTE, from 1st to 5th August 2022
- Mrs. Pavithra H B, Assistant Professor attended FDP on "Modern tools for Academic Documentation" from 1st September to 3rd September 2022
- Mrs. Pavithra H B, Assistant Professor attended workshop on "Designing and modelling of IOT, AI, ML systems" from 1st August to 5th August 2022
- Mr. Divyesh Divakar, Assistant Professor participated in the Five Days Faculty Development Program on Natural Language Processing organized by Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal in association with Karnataka Science and Technology Academy from 25 to 29 July 2022
- Mr. Vayusutha M, Assistant Professor participated in a five days workshop on "SIGNAL PROCESSING FOR BIOMEDICAL APPLICATIONS" organized by the Department of Electronics and Communication Engineering, NMAMIT, Nitte, in association with IEEE Signal Processing Society, Bangalore Chapter from 14th to 18th November 2022 at NMAM Institute of Technology, Nitte
- Mr. Vayusutha M, Assistant Professor participated in "Science Mela International Cultural Jamboree 2022" during 21-12-2022 to 27-12-2022



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- Mr. Sreerama Samartha J G, Assistant Professor participated in a five days workshop on "SIGNAL PROCESSING FOR BIOMEDICAL APPLICATIONS" organized by the Department of Electronics and Communication Engineering, NMAMIT, Nitte, in association with IEEE Signal Processing Society, Bangalore Chapter from 14th to 18th November 2022 at NMAM Institute of Technology, Nitte
- Mr. Sreerama Samartha J G, Assistant Professor participated in "Science Mela International Cultural Jamboree 2022" during 21-12-2022 to 27-12-2022
- Mr. Manjunatha I R, Assistant Professor attended FDP on "Next Generation Wireless Networks for Autonomous Intelligent Communications" organized by Sri Venkateswara College of Engineering, Bengaluru from 26/12/2022 to 30/12/2022
- Mr. Manjunatha I R, Assistant Professor attended workshop "Signal Processing for Biomedical Application" held at NMAMIT, NITTE from 14th to 18th November 2022
- Mr. Vinay H S, Assistant Professor attended FDP on "Recent trend in computer science" organized by department of Emerging Technologies in computer science held from 22/12/22 to 24/12/2022 at G. Pulla Reddy Engineering College, Kurnool
- Mr. Vinay H S, Assistant Professor attended FDP on "Cloud computing and its applications" organized by department of Emerging Technologies in computer science held from 28/11/22 to 3/12/2022 at G. Pulla Reddy Engineering College, Kurnool
- Mr. Ramesh E, Assistant Professor attended FDP on "Web programming" from 22nd and23rd November 2022 held at Canara Engineering College, Benjanapadavu.
- Mr. Ramesh E, Assistant Professor attended FDP on "Modern tools for Academic documentation" from 1st to 3rd September 2022 held at Canara Engineering College, Benjanapadavu



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- Mr. Sujit S Pai, Assistant Professor has attended Five Days FDP on "Next Generation Wireless Networks for Autonomous Intelligent Communications" held between 26th December to 30th December 2022 organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateswara College of Engineering, Bengaluru and technically sponsored by The Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru
- Mr. Sujit S Pai, Assistant Professor has attended Six Days FDP on "Cloud Computing and its Applications" held between 28th November to 3rd December 2022 organized by Department of Computer Science and Engineering, G. Pulla Reddy Engineering College (Autonomous), Kurnool
- Mr. Sujit S Pai, Assistant Professor has attended Five Days FDP on "Recent Trends in Computer Science" held between 20th December to 24th December 2022 organized by Department of Emerging Technologies in Computer Science (ECS), G. Pulla Reddy Engineering College (Autonomous), Kurnool
- Mr. Sujit S Pai, Assistant Professor has attended Five Days FDP on "Significance of IP & Patent Specification, Drafting Filling & Prosecution of Inventions" held between 1st August to 5th August 2022 organized by REVA University
- Mr. Sujit S Pai, Assistant Professor has completed 12 weeks NPTEL Online Certification Course on Learning Analytics Tool by IIT, Bombay during July October 2022 with score of 79% (Silver+ Elite)
- Mrs. Swathi K, Assistant Professor participated in the Five Days Faculty
 Development Program on "SCILAB as per 2021 Scheme" organized by Department
 of Electrical and Electronics Engineering of GSSS Institute of Engineering &
 Technology for Women in association with ISLE from 17th to 21st October 2022



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