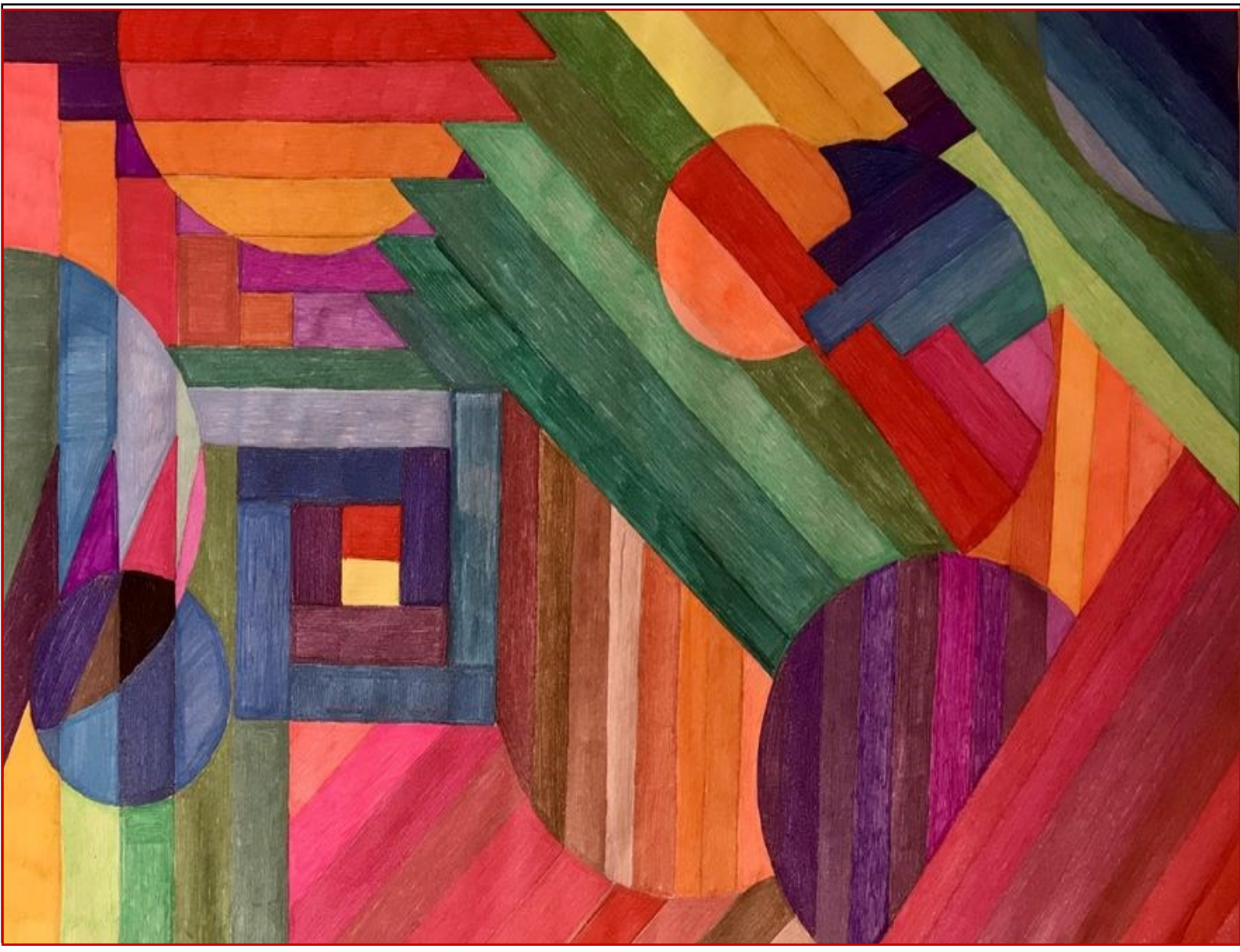
Kriti

Volume: 13
Issue: 1; July 2021

NEWS LETTER



AMRITA
VISHWA VIDYAPEETHAM
DEEMED TO BE UNIVERSITY

AMRITA SCHOOL OF ENGINEERING,
Bengaluru

School Highlights

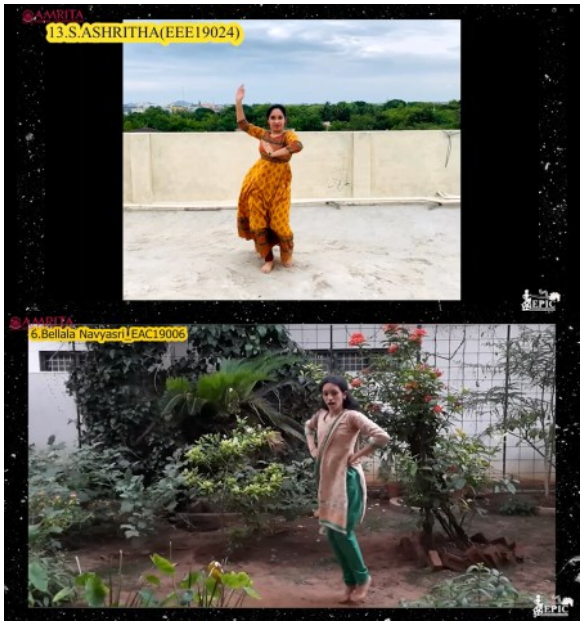
Kalanjali

The 8th to 10th July 2021, constituted an explosion of a celebration week. The most awaited time of the year, Kalanjali'21 was finally here. The event provided a platform for various activities, and the students exhibited their amazing skills. Even though virtual, the energy and the enthusiasm of the audience were matched by that of the participants.

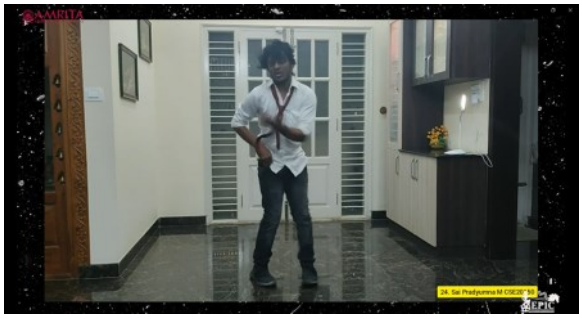
The first day started off by paying respect to the Almighty through an invocation song. The day began with a soul-searching discourse by Dr. Sriram Devanathan, Principal of the School. Dr. Sriram explained the value of gratitude that would keep one humble, the power of resilience that would help fight back adversities and the quality of acceptance and being content to lead a peaceful life. The three values were coherently measured in words and the seamless flow of thoughts in words helped the audience understand the need to imbibe them for a better life. Dr. R. S. S. Rao, Head of Student Affairs, thanked the Amritadhara members for coming together to conduct the major fest of the school. Dr. Sriram declared Kalanjali'21 open, and the enthusiastic anchors took the floor to begin the celebration. Snippets from various events conducted by both cultural and technical clubs, a week prior to Kalanjali were aired. The events conducted, to name a few, were, 'K2K', a geography-based quiz, that stimulated the intellect of the participants, 'Auto Wizards', a motor quiz, which called up for geeks in the field of cars, bikes, and machines, the flagship event of Kalanjali, 'ICON' which witnessed contestants with amazing creativity and oratorial skills, and 'Tech Triathlon' organized by FACE that had challenging tasks which put up a great fight among the participants. Between these bytes, 'Dance Away', a solo dance competition and 'Pitch Perfect', an instrumental and singing competition brought in variety and kept the audience engaged. The online voting forms to decide the best dancer and singer kept the audience glued to their screens. There were several sets of fun games included to refresh the audience thereby helping to lift up the energy of the event. Participants also witnessed the agile thinking and smart brains of the future investors who participated in 'Stalk the Stocks' a virtual stock trading event.

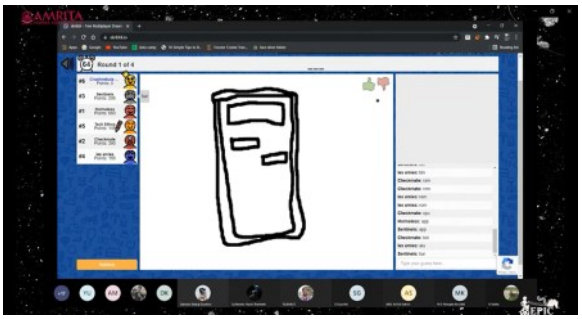
The second day was filled with interesting events and was equally engaging as the first day. The day had events like '#include' a time bound competitive coding contest, which showcased raw coding skills and problem-solving ability among the participants. 'Dialogue It', a meme making competition entertained the crowd with their funny and witty memes. Day two also had an interactive event based on movies with the audience and had an overwhelming response from the crowd. The second half had 'Art and Craft', a painting and bookmark making contest that was filled with beautiful paintings and sketches which caught everyone's attention. There were wonderful performances of dance and song in between the events which added an additional sense of joy and entertained the audience thoroughly.

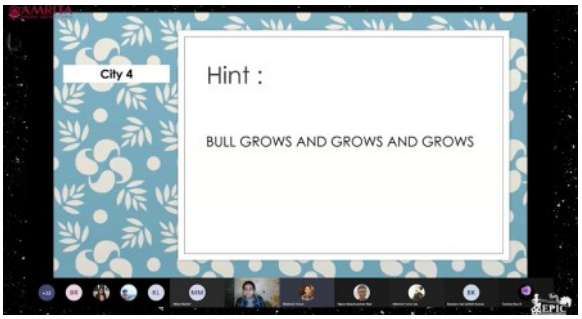
The Principal delivered the annual report of the school on the third day, and that was followed by fun-based events like 'Housie' and 'If You Were', a hypothetical situation-based event. The Mega fest concluded with the prize distribution ceremony for all the winners of the events conducted throughout Kalanjali'21. Dr. Sarada Jayan, Asst. Prof., Dept. of Mathematics and the Vice-Chair of the Cultural wing of Amritadhara, proposed the vote of thanks.



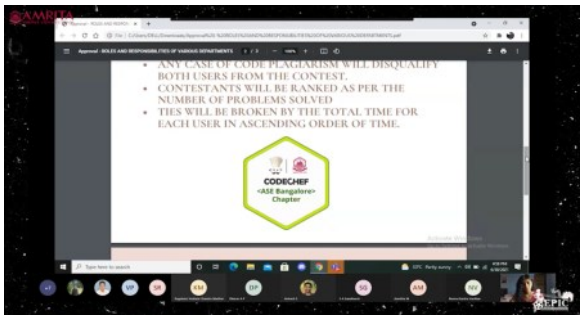
School Highlights

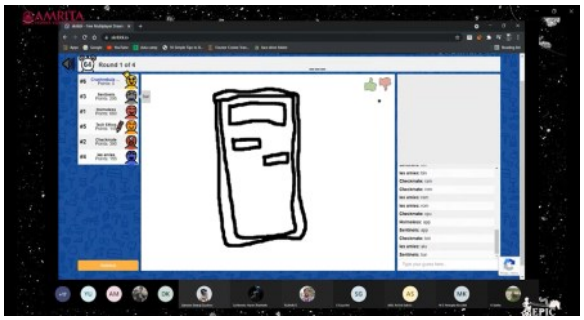


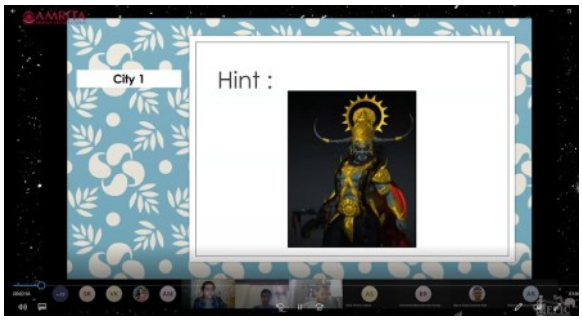


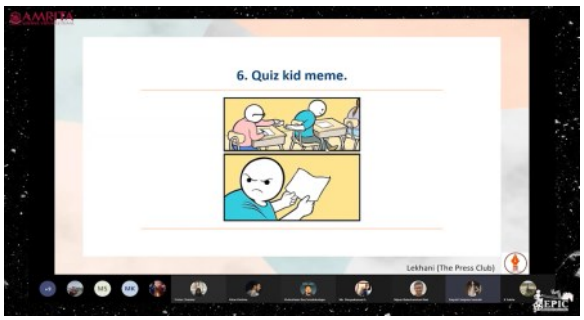


School Highlights









Farewell

The farewell meet for the students of 2017-2021 B.Tech. and 2019-2021 M.Tech. batches was held on 10th July 2021 at 6 pm.

The virtual farewell meet had all the components that gave a real-time experience. The juniors put in their efforts to make the evening a memorable one. The theme was metaphorical in its construct, a train journey with a caption "Hop into the jolly train & we'll take you down the memory lane".

The Principal's address carried the concept of life, signifying a variety of experiences for wholesome life. He also requested the students to carry a package of love with them, and explained with examples the difference between personal life and professional life, and how to balance both.

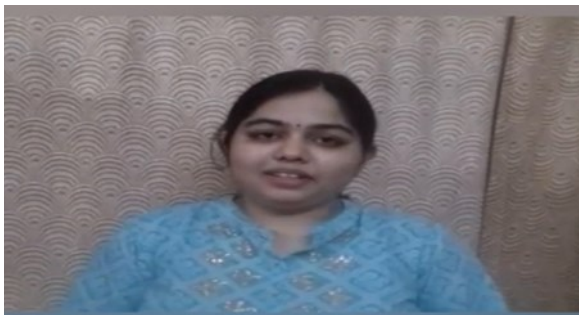
The cultural extravaganza started with a timed game for the students.

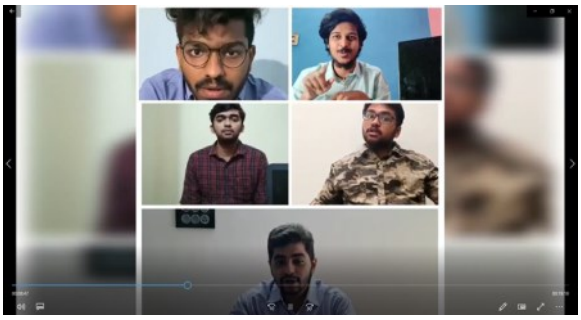
Later, the third-year students gave an assorted performance that consisted of classical dance, rendition of popular songs and instrumental music and dance performances for popular songs. The teachers too tried to entertain the audience with their dance performances.

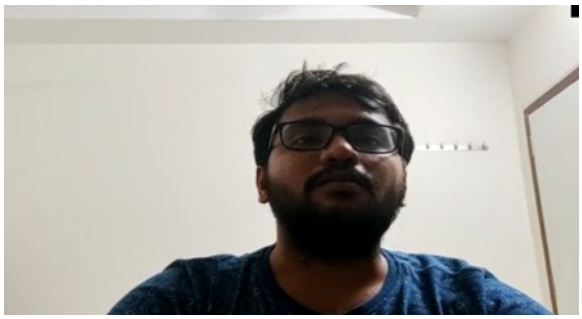
The faculty advisors of each passing out batch addressed their students and wished them all success both in their personal and professional lives. The response on the chat box for the event was overwhelming.

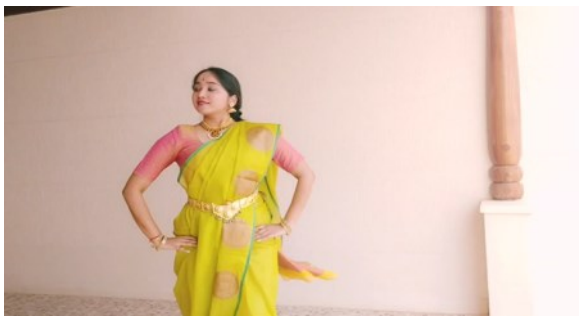
Overall, the entire journey on a Sunday evening was wholesome with amazing events and nostalgic moments for the graduating students who were carrying along the beautiful memories of what they would go on to call 'the best phase' of their lives. Ms. Sreevidya B., Asst. Prof., Dept. of CSE the Vice-Chair of the technical wing of Amritadhara proposed the vote of thanks.

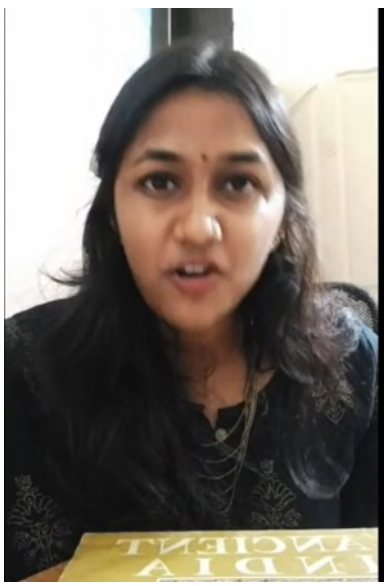
School Highlights



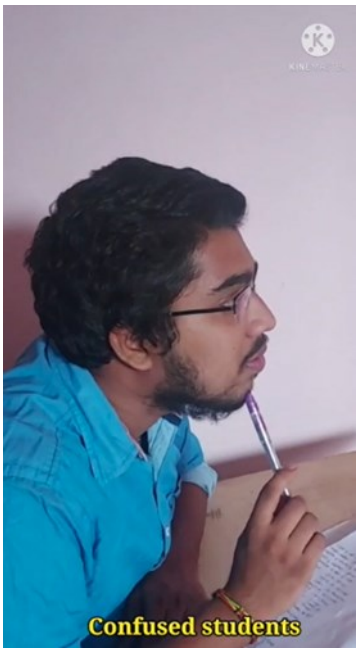








School Highlights



Papers Presented

INTERNATIONAL CONFERENCES			
NAME	**TITLE**	**DATE**	**NAME OF THE CONFERENCE**
Presented By: Rashmi Sankar **Author(s):** Rashmi Sankar Tripty Singh	"Robust Feature Extraction Using Embedded GAN in Image Retrieval Systems For Semi-Supervised Data"	6th July to 8th July 2021	12th International Conference on Computing, Communication and Networking Technologies (ICCCNT) at IIT-Kharagpur, West Bengal, India
Presented By: Tarakaram Yadalla **Author(s):** Tarakaram Yadalla Lakshmi Prasanna Yadlapalli Mounika Yarabolu Tripty Singh	"Codon Optimization and Converting DNA Sequence into Protein Sequence using Deep Neural Networks"		
Presented By: Amrita Tripathi **Author(s):** Amrita Tripathi Rekha R. Nair Tripty Singh	"Optimal Pneumonia detection using Convolutional Neural Networks from X-ray Images"		
Presented By: Divyateja Yaramalla **Author(s):** Divyateja Yaramalla Tripty Singh	"A Machine Learning Paradigm For Explanatory Cases With CKD"		
Presented By: Amrita Tripathi **Author(s):** Amrita Tripathi Abhinandan Basavapattana Rekha R. Nair Tripty Singh	"Visualization of COVID Bimodal scan using DNN"		

Workshops/Seminars/Conferences /Webinars/FDPs Attended

NAME	TITLE	DATE	Platform / Venue
Ms. Radha D. Dr. Santhanalakshmi S.	Journal Citation Reports Certification Series 2021	15th -17th June 2021	Webex
Ms. Nalini S.	5-day online FDP on "Inculcating Universal Values in Technical Education"	28th June - 2nd July 2021	All India Council for Technical Education (AICTE)
Ms. D. Radha	Online SPARC Workshop on "Design Principles for Next Generation Embedded Computing Systems"	5th-8th, 12th -13th July 2021	*Indian Institute of Technology, Guwahati* (IITG)

Faculty Achievements/Participation/Recognition

- **Dr.Tripty Singh** was an organizing chair for the 12th International Conference on Computing, Communication and Networking Technologies (ICCCNT), IIT - Kharagpur, West Bengal, from 6th to 8th July 2021.

- **Dr. Supriya M.**, Assistant Professor (SG), Department of Computer Science and Engineering delivered a webinar on "Data Mining - Past, Present and Future" on 16th July 2021 at Department of Computer Science and Engineering, Presidency University, Bengaluru. This was attended by the students and faculty members of the department.

- **Dr. Peeta Basa Pati**, Professor from Department of CSE delivered a webinar titled "Intelligent Document Processing Systems" on 31st July 2021.The webinar was organized by the Department of CSE and coordinated by M.Tech. CSE and Data Science admission coordinators Ms. Nalini S. and Ms. Sreebha Bhaskaran.

Student Achievements/Participation/Recognition

- **Ms. Rashmi Sankar, a** final year M.Tech. Data Science student, had participated in a poster presentation at AISG, 2021. She presented the poster based on her M.Tech. thesis, "Efficient Automation of Resazurin based Antibiotic Susceptibility Testing using Computer Vision", under the guidance of Dr. Tripty Singh, along with other researchers Dr. R. Sankar and Ms. Charanya Sankar on 1st July 2021. The team has been awarded as the Best Poster Presentation in PG Category at the International Symposium on Artificial Intelligence for Social Good'21.

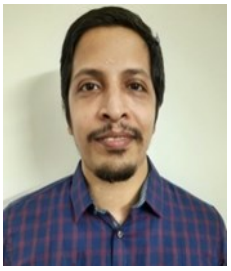
Departmental Activity

Introductory Session

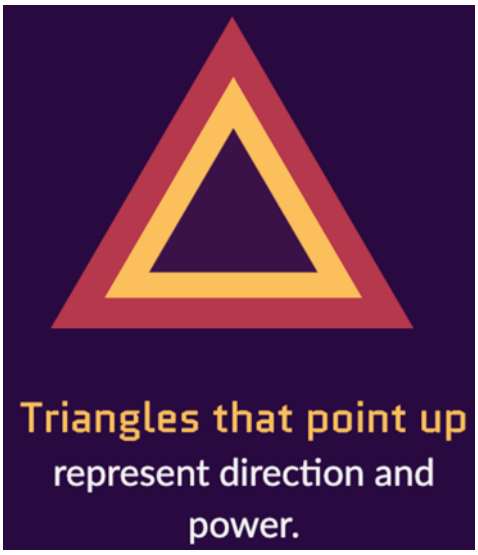
The department organized an Introductory session for the new batch of M.Tech. CSE and Data Science students on 17th July 2021.

Dr. Supriya M., Vice Chairperson of CSE addressed the students, Dr.Uma Maheswari B. and Dr. S. Santhanalakshmi Faculty advisors of CSE and Data Science apprised about the curriculum and students introduced themselves during this session.

New Appointment



Dr. Nidhin Prabhakar T.V. joined the department as Assistant Professor. He has completed his Ph.D. under the guidance of Dr. P. Geetha from Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore. He has done his M.Tech. in Remote Sensing and Wireless Sensor Networks from Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore. He has completed his B.Tech. in Electrical and Electronics Engineering from Amrita Vishwa Vidyapeetham, Amritapuri. His research interests include image processing, machine learning, deep learning, remote sensing, computer vision.



Papers Presented

INTERNATIONAL CONFERENCES			
NAME	**TITLE**	**DATE**	**NAME OF THE CONFERENCE**
Presented By: P. S. V. N. K. Mani Gupta **Author(s):** P. S. V. N. K. Mani Gupta Sreenidhi Balki Manikantha Vallabhaneni Sonali Agrawal	"Design, Implementation and Performance Comparison of D-Latch Using Different Topologies"	8th to 10th July 2021	6th International Conference on Communication and Electronics Systems (ICCES) 2021, PPG Institute of Technology, Coimbatore
Presented By: Thanga Katheresh I. **Author(s):** Thanga Katheresh I. M. Vinodhini	"Low Power NoC Buffer Protection using Error Correction Code"	9th to 10th July 2021	2nd International Conference on New Age Systems and Automation Technologies - ICNAAT-2021, Bannari Amman Institute of Technology, Satyamangalam
Presented By: Navin Kumar **Author(s):** Navin Kumar	"Simplified approach for Collision Avoidance in Vehicular Network"	9th to 11th July 2021	6th IEEE CONECCT 2021 organized by Bengaluru Section

Workshops/Seminars/Conferences /Webinars/FDPs Organized

NAME	TITLE	DATE	Platform / Venue
Dr. Navin Kumar Dr. C. Paramasivam Ms. Sreebha Bhaskaran Dr. Kamatchi S.	5-day online FDP on "IC Design from RTL to GDS-II" using Cadence EDA Tool	26th - 30th July 2021	Cisco Webex Meetings

Faculty Achievements/Participation/Recognition

- **Dr. Navin Kumar** served as a chair for the track "Vehicular Technology for Intelligent Mobility" and chaired the session during CONECCT 2021 conference scheduled from 9th to 11th July 2021.

Departmental Activity

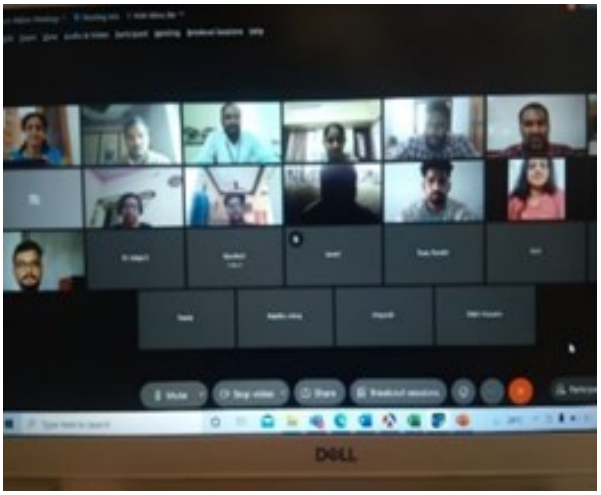
IC Design from RTL to GDS-II using Cadence EDA Tool

Department of ECE and IEEE Student Branch Amrita School of Engineering, Bengaluru jointly with Entuple Technologies organized 5-day online FDP on "IC Design from RTL to GDS-II" using Cadence EDA Tool from 26th to 30th July 2021. The FDP included Invited talk, theory session in the morning slots and hands-on sessions in the afternoon. The FDP offered from Full-Custom IC Design using Virtuoso, for first two days, Semi-custom IC design Flow on the third & fourth day and PCB Design using OrCAD on the fifth day. The FDA was attended by 43 members which included 14 faculty members, 11 research scholars and 18 M.Tech. students. The FDP was organized by Dr. Navin Kumar (Chairman, Department of ECE and Branch Counsellor IEEE ASE-B), Dr. C. Paramasivam (FDP Coordinator), Ms. Sreebha Bhaskaran, (Faculty Advisor, IEEE Student Branch), Dr. Kamatchi S. (FDP Coordinator). The FDP was arranged through Cisco Webex Meeting platform.

On 26th July 2021 morning, Ms. Sreebha Bhaskaran formally welcomed the participants to the FDP and introduced them to Mr. Charudhathan Nagarajan, AE Director Cadence who delivered invited talk on the topic "Market drivers and Future trends in semiconductors and electronics". Then Mr. Nitten, Application Engineer, from Entuple Technologies Pvt. Ltd. started the session introducing about Schematic Capture using Cadence Virtuoso. The afternoon session on hands-on was conducted to perform Schematic Capture using Cadence. Participants were also given assignment to practice. On 27th July 2021 morning Mr. Nitten, continued and briefed about the layout design. The hands-on session in the afternoon was conducted to perform layout design using Cadence Virtuoso. On 28th July 2021, Mr. L. V. Kedarnath, FAE Entuple Technologies Pvt. Ltd. explained about "Overview of Semi-Custom Design Flow", while in the afternoon, the hands-on session was conducted to perform RTL Synthesis using Genus EDA tool.

On 29th July 2021 in the morning session another invited talk by Dr. George Abraham, AE Director Cadence was arranged. He delivered a talk on the topic "Cadence Digital Implementation and Signoff-A full flow overview". Following this talk, Mr. L. V. Kedarnath continued to brief about Physical Design Implementation using Innova's tool. In the afternoon, hands-on session was conducted to perform physical implementation using Innova's EDA tool. On 30th July 2021 morning Mr. L. V. Kedarnath gave a talk about Physical "Design Implementation Estimation of Reports". After that Mr. Kamlesh Kumar, Application Engineer Entuple Technologies covered PCB Design using OrCAD. In the afternoon, a hands-on session was conducted to perform physical implementation using Innova's EDA tool.

The FDP concluded with very positive feedback from participants followed by Vote of thanks by Ms. Sreebha Bhaskaran who thanked the speakers, participants and organizers for arranging a very useful FDP. She also thanked the supporting faculty for providing the systems for the participants throughout the FDP and IEEE student branch for helping in organizing the FDP very professionally.



Industry 4.0- Concept, Technologies & Challenges

A research talk on "Industry 4.0- Concept, Technologies & Challenges" was delivered by an invited guest Mr. Sivasubramanian S., Quality & Reliability Engineer in the Global Supply Chain organization of Intel Corporation, Bengaluru on 31st July 2021. He discussed about the proliferation of Internet and wireless technologies, manufacturing industries and how these are undergoing a huge change to meet the macro trends of globalization, customization, cross-geo resource & talent pooling, connected businesses. This macro trend has demanded a shift in manufacturing strategy worldwide, referred to as Industry-4.0. Presentation covered characteristics of Industry 4.0, the design principles, and key technologies. The challenges associated with sensor technologies, application of Big-data, cloud computing and wireless were brought out. Finally, the landscape of Industry 4.0 in the current industrial scenario, the concept of edge cloud and the need for adopting to an overall technology shift was highlighted. The talk was organized by Dr. Manoj Kumar Panda for the faculty members of the Department of Electronics & Communication Engineering, Amrita School of Engineering, Bengaluru.

Mr. Sivasubramanian S. has more than 29 years of Industrial experience in the field of Quality, Reliability, Availability, Maintainability and Safety of aerospace, aeronautics, and industrial process control systems. Mr. Siva had received his B.E. degree in Electronics & Communication Engineering from the University of Madras, M.S. in Embedded Systems Design from Manipal University, M.Sc. from Sikkim Manipal University, MBA from Annamalai University and Post Graduate Diploma in Applied Statistics (PGDAST) from IGNOU. Mr. Siva is trained as a Six Sigma Master Black Belt and a certified Black Belt by Honeywell. He has served at the Space Applications Centre, (SAC-ISRO) as Scientist SC, Aeronautical Development Agency (ADA), DRDO Bengaluru, as Scientist F, Honeywell Technology Solutions, Bengaluru, as Engineer Fellow before joining Intel Corporation, Bengaluru, as a Functional Safety Manager. Mr. Siva is currently serving as a Quality & Reliability Engineer in the Global Supply Chain organization of Intel Corporation, Bengaluru, India.

Re-appointment

Dr. Susmitha Vekkot joined back as Assistant Professor (Senior Grade) in the department on 12th July 2021 after completing her Ph.D. degree in Signal & Image Processing. She was a recipient of the Visvesvaraya Ph.D. scholarship, Ministry of Electronics & Information Technology, Govt. of India. She also holds various awards like 'London Metropolitan University, Master of Science - Best Masters Award for Academic Excellence 2008/09', 'London Metropolitan University, Master of Science - Faculty of Computing Best Student Award 2008/09', 'London Metropolitan University, Master of Science - Best Postgraduate Communications Technology Student Prize 2008/09'. Her research interest areas are Signal and image processing, machine learning, deep learning applications in speech, signal and image processing.

Papers Presented

INTERNATIONAL CONFERENCES			
NAME	**TITLE**	**DATE**	**NAME OF THE CONFERENCE**
Presented By: Austin Davis **Author(s):** Austin Davis K. Deepa	"Flight Strategy for fixed wing pseudo satellite to achieve maximum endurance"	1st -3rd July 2021	8th International Conference on Smart computing and communications (ICSCC-2021)

Faculty Achievements/Participation/Recognition

Dr. Deepa K.

- Received **Best Paper** Award for the paper "**Flight Strategy for fixed wing pseudo satellite to achieve maximum endurance**" presented in the 8th International Conference on Smart computing and communications (ICSCC-2021) organized by Muthoot Institute of Technology and Science (MITS), Kerala held during 1st to 3rd July 2021.
- Has been recognized as IEEE PES DAY 2021 Ambassador for Bengaluru section by IEEE PES Headquarters.

Student Achievements/Participation/Recognition

The following students were recognised as IEEE PES DAY 2021 Ambassadors by IEEE PES Headquarters for the following category:

Sl.No.	NAME	PES DAY Category
1	S. Bhargavi	WIE & WiP Ambassador
2	V. Jayadeep	Student Branch Chapter Ambassador
3	Reddi Vivek Vardhan	WIE & WiP Ambassador
4	Brajesh	WIE & WiP Ambassador
5	Ashutosh	Student Branch Chapter Ambassador

Department of ME

Papers Published

INTERNATIONAL JOURNAL			
NAME	**TITLE**	**MONTH & YEAR**	**NAME OF THE JOURNAL**
Author(s): Santosh Kumar Sahu Nitesh Dhar Badgayan Sutanu Samanta P.S. Rama Sreekanth	"Evaluation of Cell Parameter Variation on Energy Absorption Characteristic of Thermoplastic Honeycomb Sandwich Structure"	July 2021	Arabian Journal for Science and Engineering, Springer IF: 2.334 https://doi.org/10.1007/s13369-021-05987-9

Papers Presented

INTERNATIONAL CONFERENCES			
NAME	**TITLE**	**DATE**	**NAME OF THE CONFERENCE**
Presented By: Nayan M. Kakoty **Author(s):** Nayan M. Kakoty Zahnupriya Kalita Abhijit Boruah Rajeevlochana G. Chittawadigi Subir K. Saha	**Presented By:** Nayan M. Kakoty **Author(s):** Nayan M. Kakoty Zahnupriya Kalita Abhijit Boruah Rajeevlochana G. Chittawadigi Subir K. Saha	1st - 3rd July 2021	Advances in Robotics (AIR 2021): 5th International Conference of The Robotics Society: Organized by IIT Kanpur and The Robotics Society: Publication in ACM (Association for Computing Machinery)

Workshops/Seminars/Conferences /Webinars/FDPs Organized

NAME	TITLE	DATE	Platform / Venue
Mr. Rajeevlochana G. Chittawadigi	Advances in Robotics (AIR 2021): 5th Conference of The Robotics Society	1st-3rd July 2021	IIT Kanpur and The Robotics Society

Workshops/Seminars/Conferences /Webinars/FDPs Attended

NAME	TITLE	DATE	Platform / Venue
Ms. Deepthi Y. P.	FDP on "The Art of doing Research"	12th to 22nd July 2021	Jyothi Engineering College, Thrissur, India, CHRIST (Deemed to be University), Bengaluru, India and Pelita Bangsa University, Indonesia in association with Internal Quality Assurance Cell (IQAC)
Mr. Prashanth B. N	Webinar on "Artifact Innovation and Development using Additive Manufacturing and IoT"	23rd July 2021	Department of Mechatronics, Manipal Institute of Technology, Manipal
Ms. Mrudula Prashanth	Webinar "How to write a research paper for an International Journal-Tips, Traps and Tricks"	30th July 2021	Springer Nature in collaboration with Central library, Amrita Vishwa Vidyapeetham, Coimbatore

Faculty Achievements/Participation/Recognition

- **Mr. Rajeevlochana G. Chittawadigi**
  - ⇒ Was invited to deliver an online lecture and hands-on session on the topic "Robot Kinematics using RoboAnalyzer" on 16th June 2021, during AICTE sponsored Faculty Development Programme on "Robotics & Automation" from 16th to 30th June 2021, organized by the Mechanical Engineering Department of Jamia Millia Islamia (A Central University), New Delhi.
  - ⇒ Was invited as a resource person to deliver an online technical talk on "Robotics" for Pre-University (PU) and Diploma Students as B.Tech. aspirants, in Mechnova 2k21, organized by the Department of Mechanical Engineering, T. John Institute of Technology, Bengaluru, on 31st July 2021.

- **Mr. Pramod, Ms. Deepthi Y.P., Mr. Vinod Kotebavi and Ms. Mrudula Prashanth** have successfully completed the Journal Citation Reports (JCR) certification series -2021 on July 8th 2021.

- **Mr. Shashi Kumar M.E.** has successfully completed the Innovation Ambassador training (Foundation level) conducted by MoE's Innovation Cell and AICTE from 30th June -30th July 2021 in online mode.

Papers Published

NATIONAL JOURNAL			
NAME	**TITLE**	**MONTH & YEAR**	**NAME OF THE JOURNAL**
Author(s): Yogita Chhatre	"Sārasvatavyākaraṇāntargatā Dhātutaraṅgiṇī- svopa-jñaṭīkā"	July 2021	The Samskrit Refereed Quarterly E Journal - HITAYA (ISSN: 2581-7787) Volume 8

Faculty Achievements/Participation/Recognition

- **Ms. Yogita Chhatre** participated in 10 days' workshop on Classical Sanskrit Poetry organized by Veda Vedanta Adhyayana Research Centre-New Delhi and KKSU-Nagpur, from 21st to 31st July 2021.

Editorial Board

Prof. Rakesh S.G.
Dept. of ME
Chief Editor

Ms. Kavitha C.R.
Assistant Professor
Dept. of CSE
Editor

Ms. Vasanthi
Executive Secretary
Editor

Mr. Shiju
ICTS
Media Support

Board Members

Ms. T. Sasikala
Dept. of CSE

Ms. Kirti S. Pande
Dept. of ECE

Dr. V.S. Kirthika Devi
Dept. of EEE

Ms. Mrudula Prashanth
Dept. of ME

Mr. H. Manjunath
Dept. of Sciences

Dr. Neetu Srivastava
Dept. of Mathematics

Ms. Smita Sail
Dept. of English

Dr. Tanashree Redij
Amrita Darshanam

Ms. K. Sukha
BL.EN.U4CSE19059

MS. Gayatri Sanjana Sannala
BL.EN.U4CSE19045

Amrita School of Engineering

Kasavanahalli, Carmelaram Post, Off Sarjapur Road, Bengaluru -560 035

Tel.: +91 80 21583700 Telefax : +91 80 28440092

https://www.amrita.edu/campus/bengaluru