

QUARTERLY NEWSLETTER
VOL 2, ISSUE 04, JUNE 2019

CMRIT CONNECT

75th



Among top 100 Private Engineering
Institutions as per TIMES Ranking
Survey 2019



93rd

Among top 200 Best Private Engineering
colleges as per India Today Survey 2019



CMR INSTITUTE OF TECHNOLOGY

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CMRIT NEWSLETTER
CMRIT-CONNECT
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 Editorial Board:



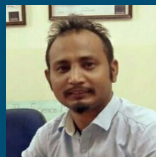
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 Head- Student Club &
 Alumni Cell



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 Asso. Prof, ISE



Prof. Prasad B S
 Asst. Prof, ISE



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 Asst Prof (ENG)

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The CMR Group

CMR University

CMR Institute of Technology

CMRIMS (Autonomous)

*CMR University School of Legal
 Studies*

CMR Life Skills Institute

CMR National PU College

CMR National Public School

NPS International School, Singapore

Ekya School, ITPL

Ekya School, J.P Nagar

Ekya School, Kanakapura Road

Ekya School, BTM Layout

Ekya School, Byrathi

MESSAGE FROM THE PRINCIPAL



Dr. Sanjay Jain
Principal

Dear Reader,

We are happy to share that CMRIT is once again recognized as one of the prominent institutes across the nation. In the latest 2019 surveys, 'Times' has ranked CMRIT as 75th among the TOP 100 best engineering colleges in India while 'India Today' has ranked us as 93rd among the TOP 200.

We want to thank all our students, parents, faculty, alumni, industry partners and our well-wishers for their contributions in the journey. It is the stupendous effort of our faculty which has helped our students to succeed and have taken us a step closer to our vision to produce competent professionals with social sensitivity.

The last quarter was full of interesting activities. A 24-hours national level 'Social Hackathon' drew huge interest from students across the nation for technical solutions in the area of rural development, sustainable communities, clean energy and transport, industrial innovation, and education & healthcare. An IDEA Sci-Techathon was also organized for students to present their ideas on technical solutions on clean Bangalore, environmental applications of nanotechnology, solutions to current energy crisis, IOT for disaster management and technological application for agriculture. Our students also organized TEDxCMRIT event where young visionaries shared their interesting success stories - highly appreciated by the audience.

CMRIT students have continued their momentum in participating and winning national and state level competitions - be it hackathons, technical competitions, idea contests, start-up challenges, sports or cultural events. Six of our students got university ranks with one of them achieving the honour of VTU 'Gold' medal. Our 'Tie-Your-LACES' program has also started yielding results with three of our final students getting the salary package of eighteen lakhs per annum, and many students getting much higher packages compared to the previous years.

CMRIT's fourteen 'Centres of Excellence', Innovation & Entrepreneurship' cell and 'Makerspace' are continuously enriching both creativity and technical knowledge of our students - resulting in high-quality research publications, patents and start-ups.

From this edition of CMRIT 'Connect', we are also including few technical articles from our students and faculty. Hope you will have a good read!

Dr. Sanjay Jain
Principal

MESSAGE FROM THE VICE-PRINCIPAL



Dr. B Narasimha Murthy
Vice Principal

Dear Reader,

It's a great feeling to write a message for this highly informative newsletter. The newsletter comprises news of last three months of academic excellence and co-curricular and extra-curricular activities. The compiled news and articles shows how consistently we are inching towards the vision and mission of our institution. Many of our students and staff participated and won many competitions. These competitions enabled them to gain a comprehensive knowledge and understanding of various technologies and aspects. I wish them all the best.

Dr. B. Narasimha Murthy
Vice Principal

HOD'S COLUMN



Dr. R Elumalai
Professor and Head
Department of ECE

Dear Reader,

It is always a pleasure to be a part of a team which strives to bring out the talents of students and staff. CMRIT have always been striving to keep ahead of the competition. The essential purpose of a institute Newsletter is to inform, engage, inspire and entertain a diverse readership - including alumni, parents, students, faculty, staff and other friends of the college - by telling powerful stories that present a compelling, timely and honest portrait of the institute to its extended family. This Newsletter has made an earnest attempt in this direction and brought out activities of the institute. I am sure that our institute will scale even greater heights in the years to serve the society.

Dr R Elumalai
HoD Dept of ECE

COEs AND I&E CELL

CoE– INTEGRATED CIRCUITS

Dr. Amit Jain, Dr. Nasir Abdul Quadir of ECE department published journal paper titled “Millimeter-Wave Analog Pre-distorted Power Amplifier at 65nm node” in International Conference on Communications, Signal Processing, and their Applications.

Dr. Amit Jain, Dr. Nasir Abdul Quadir of ECE department published journal paper titled “Novel Rectifier Design Dedicated for Low Power Ambient RF Energy Harvesting” in International Conference on Advances in Electrical and Computer Technologies.

Dr. Amit Jain, Dr. Nasir Abdul Quadir, Ruchita Kumari (1CR14EC148), Sammeta Poojitha (1CR14EC159) and Vandana C (1CR14EC203) of ECE department published journal paper titled “A 0.5 V LNA Design for 2.4 GHz Wireless Body Area Network Applications” in International Conference on Electronics and Communication and Aerospace Technology.

CoE– INTELLIGENT ENERGY SYSTEM

Center of Excellence on Intelligent Energy System has taken-up the Mega Application titled "TyaDyuth: Development of Biobattery for W2E Conversion" has received grant amount of Rs.7000 from KSCST

CoE– MATERIAL SCIENCE



Nano India - 2019 was organized at MG University, Kottayam, Kerala on 26th - 27th April 2019. Dr. Ramdas Balan participated in the conference as a representative of CoE -Materials Science and presented research work on "Nanostructured Tin Oxide: Precipitation method synthesis and Photocatalytic studies".

Two students from mechanical engineering final year Shreyas Gopal and Vamsi Sai, working on "Purification of Automobile Exhaust Gas" project visited BITS Hyderabad for catalysis reactions using the composite catalyst being developed and successfully completed the same .

CoE– SENSORS AND NANO ELECTRONICS

Dr.Chaitanya Lekshmi Indira, Prof. E. S. Dwarakadasa and Prof. Vinay B. K. received Sponsored Research Project Grant of RS.25,000/- from Kuwait Oil Company for the Project title “Optical Sensor for Heavy Metal detection in waste water”.

Dr.Chaitanya Lekshmi Indira, Prof. E. S. Dwarakadasa, Prof. B. Narasimhamurthy and Prof. Vinay B. K. received sponsored research project grant of RS.25,000/- from Pyrotechnologies. Project title “Catechol Biosensor”

CoE– SIGNAL PROCESSING

Dr. Binish Fatimah of ECE department published journal paper titled “Multiscale Modeling using Signal Adapted Filter Bank” in ICATIECE-2019, Publisher name – IEEE

Dr. Binish Fatimah, T Rohanchetanya Reddy (1CR17EC200), Ajay Anguluri (1CR15EC009), Ashwath A Chandrasekharan (1CR15EC029), Pragati Jha (1CR15EC131), Tanya Singh (1CR15EC194) of ECE department published journal paper titled “Wind noise cancellation signals using TQWT and adaptive filtering” in National conference on emerging technologies on computing and communication.

CoE– INTELLIGENT HUMAN COMPUTER INTERACTION

One-Day Workshop on “Open Power and AI” was organized by Centre of Excellence for Human Computer Interaction hosted by IBM on 12th April 2019. Resource person Mr. Krishna Balaga, AI Leader, IBM .



CoE– NATURAL RESOURCE MANAGEMENT –WATER AND ENERGY

CoE Mega application projects on Air quality characterization. 1st project was health risk assessment of street vendors in different land uses of Bangalore. The 2nd project was on impact of transport micro environments such as auto, bus, bike and cycle on particulate exposure. The 3rd project was PM5 exposure assessment during Diwali.



DEMONSTRATION OF MEGA APPLICATIONS AND EXPERTS VISIT CoEs

The Expert Committee headed by various Professors and Heads of Departments visited different Centre of Excellence facilities on 30th April 2019 for seeing the progress of Centre of Excellence Applications. Also they insisted the faculty and student members to develop applications which will be beneficial to the society.



INNOVATION AND ENTREPRENEURSHIP (I&E) CELL

- I&E Cell has written a news paper article informing the public about "Geographical Indication (GI)'s" as a potential job creator. This article appeared in Deccan Herald news paper.



- Shri Padmavibhushan Shri Veerendra Heggade, Dharmadhikari, Kshetra dharmasthala visited CMRIT I&E Cell. A lab tour and demonstration of our societal research projects was done.

- Mr. Avinash Reddy of Bleave Private Limited, an alumni of CMRIT has signed an MOU with CMRIT for research support and collaboration in the allied fields of hospitality.



- CMRIT I&E cell has received Rs 1,50,000/- from iSquaeD for this quarter as revenue for sewage patent and for further research in mobile STP.

- CMRIT I&E team has developed

a Mobile STP with aid of 3 patents originated from recently concluded Grand Challenges Karnataka & SoCH awards, iSquareD has offered a consultancy of Rs 75000 per quarter.



- GI Kisan trust is headed by our alumni Manohar S of Telecommunications department and Unnat Bharat Abhiyan (UBA) project of CMRIT has necessitated data collection from 5 villages near chintamani area.
- I&E cell question of "how India will progress in entrepreneurship if the typical NBA evaluation of a department in a college has only 5 marks out of 1000 marks for the same?" has won a MHRD IIC prize.
- The I&E cell is proud to have two CMRIT team as part of the FKCCI Manthan's 2 finalist teams and fighting to be in the top 5 prize winners. CMRIT is the only college in Karnataka to have two finalists.
- CMRIT I&E Cell has organized design thinking training program for students and faculty



CMRIT SC/ST CELL

The programs available at CMRIT for SC/ST students supported by AICTE are

1. Skill And Personality Development Programme Centre for SC/ST Students (SPDP)

The broad objectives of the centre shall be to provide opportunity to SC/ST students in the Institutes to re-orient themselves in the light of emerging employment opportunities in Engineering undergraduate/Diploma students at all level. It is to empower the SC and ST students by providing special skill trainings apart from regular study. To enhance the skills of Scheduled Caste (SC)/Scheduled Tribe (ST) candidates with help of modules on communication, personality development and proficiency in English language. It will boost the confidence of SC and ST students and provide them with better career opportunities so that their employability in the industry increases.

2. Samriddhi – Scheme for SC/ST Students for Setting Start-Ups

Looking at the poor job availability in the market, it is necessary to provide opportunities for SC/ST students to start their own enterprise. The broad objective of this scheme is to help SC/ST students in designing, launching and running their own business/startup after formal education is over/during their final year of education and should have registered company/ start-up in his/her name.

3. Prerana – Scheme for preparing SC/ST Students for Higher education

There is an acute shortage of faculty in engineering & polytechnic colleges. The problem can be addressed by promoting degree students of pre-final and final year to go for post graduate courses. This scheme aims at providing financial support to institutes who are willing to put extra efforts for encouraging and training SC/ST students for GATE/GPAT/CAT/CMAT and GRE. The broad objective of the scheme is to help aspiring SC/ST students seeking higher education through admission test like GATE/GPAT/CAT/CMAT/ TOEFL/ IELTS and GRE.

WORKSHOPS/CONFERENCES

Department of CSE organized 2-day workshop titled “Big Data Hadoop and Spark” by Mr. Sumit Mittal, CEO Trendytech on 16th & 17th May 2019.



Department of EEE organized Workshop on Synchronization by Mr Balaji Sheshadri, Lead Business Analyst, VMWARE on 15th March 2019.

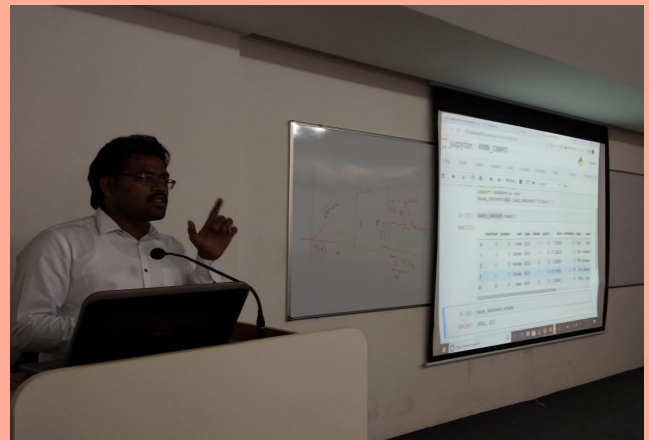


Civil Department organized Workshop on “Advanced Auto-Cad” by Mr. Mohan Medini on 12th March 2019



Mechanical Department organized one day Workshop on “Design Thinking” by Asher John Satya on 14th March 2019

ISE Department organized Workshop on “Machine Learning Algorithms” by Mr. Bharath Kumar and Mr.Gopi, Data Scientist and Consultants, Analytics-6 on 13th March 2019

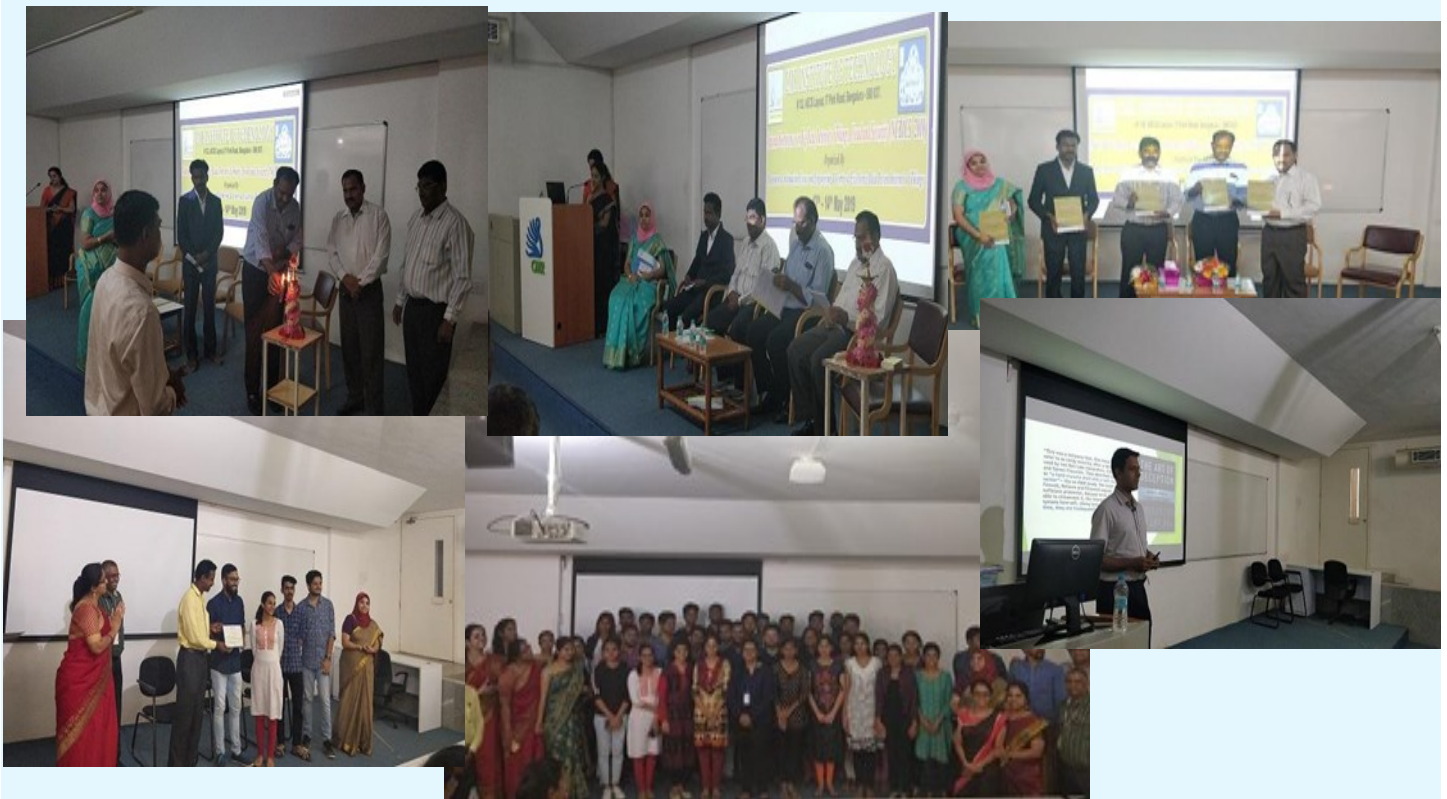


WORKSHOPS/CONFERENCES

NCBICS-2019

Two Days National Conference on BIG DATA, INTERNET OF THINGS, CLOUD AND SECURITY NCBICS 2019 was jointly organized by Department of Information Science and Engineering and Centre of Excellence Data Driven Internet of Things. Keynote Sessions were planned and Resource Persons were invited from the industries for justifying the scope of the conference.

Dr. ANJENEYALU PASALA Innovation and Technology Leader, Principal Research Scientist, Infosys – Bangalore and Mr. SRINIVAS VELLUGULA Infrastructure Delivery Manager, IBM India Mr. KAARTHIK SIVAKUMAR, Principal Engineer, Cisco Systems India – Bangalore has delivered keynote speech to the audience. Total of 34(In-House) and 18(Other Colleges) papers were shortlisted for the presentation. NCBICS 2019 ended with a positive note that the students and faculty members have to come with reputed publications in refereed scopus indexed journals



WORKSHOPS/CONFERENCES

NETC²-2019

Department of CSE in association with VTU and CSI organized 2-day National Conference on “Emerging Technologies on Computing and Communication (NETC2 2019) on 17th & 18th May 2019.

The key note address was delivered by Mr. Sumit Mittal, CEO TrendyTech Bangalore. Around 50 papers were received and 43 papers were shortlisted for oral presentation. A total of 160 participants presented their papers during the conference. The best paper awards were given to top 5 papers for the excellent work done.



DEPARTMENT TECHNICAL EVENTS

DEPARTMENT OF MASTER OF COMPUTER APPLICATION

- Guest Lecture was organized on “Microsoft Intelligent Engine” by Srinivasa Rao, JP Morgan, Bangalore on 3rd March 2019.
- Guest Lecture was organized on “Artificial Intelligent in Business Applications” by Dr. Jayakumar Singaram, Tech Lead, Rinanu Semiconductor LLP on 29th March 2019



- Guest Lecture was organized on “Tableau” by Mr. Gopichand Y D, Technical Lead Brillio Technologies pvt ltd on 13th April 2019

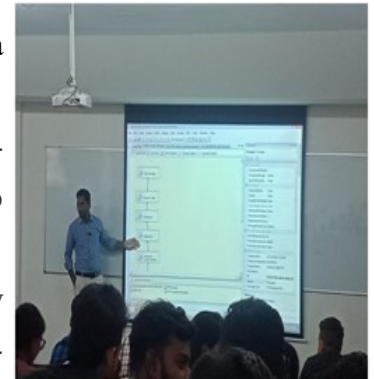
- Guest Lecture was organized on “Web Services” by Mr. Pampati, TCS Bangalore on 13th April

- Guest Lecture was organized on “Web Designing using SASS” by Ms. Keerthana Ashok, Web Developer, Accenture, Bangalore on 20th April 2019 .

- Guest Lecture was organized on “Planning and Execution in Intelligent Systems” by Dr. Swarup Kumar Mohalik , Principal Engineer , Ericsson Research, Bangalore on 24th April 2019

- Guest Lecture was organized on “Web and App design Industry” by Mr. Sourar Mondal, Sr. UX & UI Designer Interaction One on 27th April 2019 .

- Department of MCA has organized Guest Lecture on DevOPs Usecases by Chaitali Deb, Consultant , Mercedes benz, Bangalore on 8th May 2019



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- Guest Lecture was organized on “Internet Treat Mitigation” by M A Jayendran, Senior Staff QA Engineer, FireEye Inc on 8th March 2019
- Guest Lecture was organized on “ITIL - SDLC standards in IT industry” by Ashuthosh, Senior Deployment Engineer, Eurofins, Bangalore on 11th March 2019
- Guest Lecture was organized on “Mobile based eLearning on Blockchain Technology” by Vikas Kumar, CMO, KMPARDS Ltd, Mumbai on 13th March 2019
- Guest Lecture was organized on “Windows platform foundation (WPF) development” by Mayank Roshan, Software Developer, EY, Bangalore on 18th March 2019
- Guest Lecture was organized on “Knowledge Management” by Lal Manoj Kumar, Senior Consultant, TCS on 29th March 2019 .
- Guest Lecture was organized on “Aegis IBM Meetup: Data science, Big data analytics & deep learning” by Mr Bhupesh Daheria, Aegis School of Data Science on 3rd April 2019



- Guest Lecture was organized on “Embedded platforms for AI and Blockchain” by LK Prasad, Accelaron Labs Pvt Ltd on 4th April 2019
- Department of CSE has organized Expert Lecture on Overseas Education by Ajaz Ahmed, Edway Education, Bangalore on 4th May 2019

DEPARTMENT OF CIVIL ENGINEERING

- Expert Lecture was organized on “Citrix & VM Ware” by Dr Capt H R Prasad, Mr. Kumara Shivanna(Citrix), Ms Renuka Rajgopal(VM Ware) on 28th March 2019



- Expert Lecture was organized on “Contract management” on 16th April 2019.
- Expert Lecture was organized on “Opportunities for Engineers in Construction Industry” by Mr Sachin Amarnath, Director of Motion Institute of Management Studies on 22nd April 2019



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- Guest Lecture was organized on “Industrial automation” by Mr Bairam Sunil, Axis global automation on 12th March 2019
- Guest Lecture was organized on “Lab-view and its application core Engineering” by Mr Sunil Kumar, VI solutions on 28th March 2019
- Guest Lecture was organized on “Wireless Architect” by Mr.Sreeram, Wireless Architect on 27th April 2019

DEPARTMENT OF MECHANICAL ENGINEERING

- Guest Lecture was organized on “Combined cycle power plant for carbon free energy” by Jatin sachdeva, South Zone Territory Manager, Karl Storz on 1st March 2019



- Guest Lecture was organized on “Trends in Mechanical Engineering & Technology” by Mr.Kiran Hebbar, Director, K.H.Designs on 13th March 2019

- Guest Lecture was organized on “CAREERS IN CATIA” by Mr.Manikanta EDUCADD solutions on 8th April 2019
- Guest Lecture was organized on “Design of Heating, Ventilation and Air – Conditioning (HVAC) systems” by Mr.Asif and Ms.Fhareena on 22nd April 2019

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

- Department of EEE organized Guest Lecture on Robotics, by Mr Uday Bhargav, Director, GenEd, Bangalore on 9th April 2019



DEPARTMENT OF BASIC SCIENCE

- Guest Lecture was organized on “Ramsey Theory” by Prof. Pradeesha, International Institute of Information Technology, Bangalore on 8th March 2019



INSTITUTE LEVEL CELLS

E-YANTRA LAB

- A new feather to CMRIT, Bangalore - E-Yantra lab of IIT Bombay E-Yantra lab has been inaugurated to CMRIT, Bangalore online by IIT Bombay on 19th March 2019 with valedictory function. Prof. Kavi Arya, national Principal Investigator of E-yantra project with Dr. Krishna Lala, Sr. Project Manager from IIT Bombay addressed the CMRIT team & and congratulated the team for being awardee of



Task Based training led by Dr. P. N. Singh, Professor(CSE). Dr. Sanjay Jain, Principal & Dr. B. N. Murthy, Vice-principal, CMRIT, inaugurated the e-Yantra lab, awarded team members, opened & handed over the signage board and 3 robots to the team and thanks IIT, Bombay for this opportunity to CMRIT with assurance to train students as per industry needs in E-Yantra Lab & forward students to participate in national event of E-Yantra Symposium.

- E-Yantra organized “FIRE BIRD V Robot configuration and Programming” Workshop on 22nd April 2019.



ACADEMIC ENHANCEMENT (AE) CELL

A parents meeting was held at our campus on 04 May 2019, which was attended by 72 parents and chaired by the Principal.

To inculcate practical element in student's knowledge, mini projects were planned. Total of 1501

mini projects got registered from all departments. The mini projects for the current semester were displayed on 2nd, 3rd & 4th May 2019, Parents were invited to witness the same. Exceptional mini projects were identified and rewarded. Following is the list of exceptional projects identified:



| 1 st Prize | 2 nd Prize | Consolation prize |
|---|--|--|
| RADAR using Aduino UNO R3 board | Shredded recycle plastic in a pervious concrete | Compression testing of the given samples of mud/bottle blocks |
| Tray Composting Using Co-peat | Paver blocks using glass waste | Home automation using google assistant EEE |
| Working model of mini hydel power plant with pelton wheel turbine with a load | LED VU Meter using LM3914 and LM358 | ONLINE CAR POOLING SYSTEM USING ANDROID APP Toll tax through android app |
| Neural Style Transfer | College Enquiry Chat Bot | Interfacing GSM module with Arduino |
| Robotic Dog | Virtual Assistant Using Python | EFFECTS OF POLES AND ZEROS TO THE ROOT LOCUS |
| MOSQUITOE REPELLER | DENSITY BASED TRAFFIC CONTROL | Bio-gas plant |
| Effect of gypsum on consoliation and omc of laterite soil | Plastic roads | Speech Recognition Dictionary |
| Design of Light following Robot | Laquitor | Dapp - Voting Application - using Blockchain |
| End to End Encryption (E2EE) | Sales Prediction Using ARIMA | Design & implement a 12V float charger. |
| Flickzar +Edu | Raspberry pi based NAS | Interactive homes using google voice assistant |
| IOT based surveillance car | Temperature Control of a Light bulb | IOT Home automation |
| Design of 12-bit low power pipelined ADC using TIQ technique | Reducing Commercial aviation fatalities using machine learning | Arduino based obstacle avoiding Robot |
| Job allocation | Surveillance Car (Rover camera) | Demonstration of drive systems |
| MCA Discussion forum (Confer space) | Biogenic synthesis and characterization of CuO nanoparticles | |
| Helmet - Bluetooth speaker | Horse Bidding game and Black jack game on Python | |
| 1H NMR spectroscopy | Water Quality analysis | |
| Synthesis &Characterisation of CNT using Rice | | |



INTERNAL QUALITY ASSURANCE (IQAC) CELL

- International Women's Day was celebrated on Saturday, March 9, 2019 with the theme 'Balance for Better'. The ceremony began with lighting the lamp by principal, vice principal, and heads of various departments followed by principal's address. Several women staff members from various departments expressed their views on the topic "A positive change I want to bring in our society!"



- Organized mid-semester all-staff meeting on 26th Apr.'19 to Sharing of best practices and Centers-of-Excellence Presentations on Mega Applications.
- Organized CO-PO attainment session on 13th March 2019 for CSE, ECE, EEE and BS faculty. Focused mainly on gap analysis, method of CO-PO computation and NBA queries. Around 100 faculties have attended the session.



PROFESSIONAL BODY CONNECT (PBC) CELL

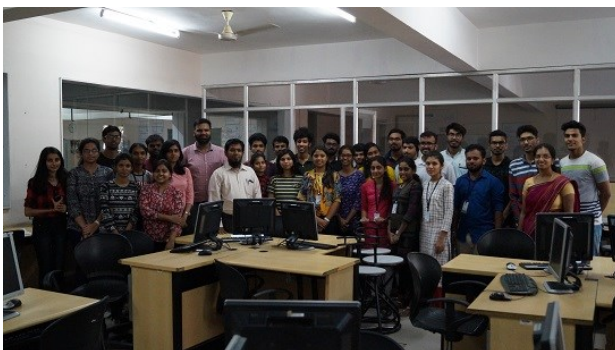
CSI

- CSI organized 2 day Workshop on “Big Data Computing” on 29th & 30th March 2019
- CMRIT-ICI(Indian concrete institute) STUDENTS CHAPTER organised a expert lecture on "Opportunities for Engineers in Army" by Col Vinod M Sasalatti (retd) , Dy Chief Engineer BMRCL (Chairman ICI-BC) on 9th April 2019 .
- CSI(Computer Society of India) in association with ACE (Association of Computer Engineers) club conducted a coding event called “code swap” on 22nd April 2019



IEEE

- TCE Department in association with IEEE ComSoc and IEEE Student Branch CMRIT organized Two day Workshop on “Research Methodology” by Dr. Navin Kumar, Senior Member, IEEE on 13th and 14th April 2019
- The inauguration of IEEE COMMUNICATIONS AND PHOTONICS JOINT SOCIETIES STUDENT BRANCH, CMRIT was held on the 30th of April, 2019 in the Mechanical AV hall, CMRIT Bengaluru from 1pm-4pm.



IE(I)

- IE(I) Chapter organized workshop titled “ZESTRIC 1.0 COMPETITION” on 6th May 2019.

EXTERNAL EXAM AND COMPETITION (EE&C) CELL

• NATIONAL LEVEL SOCIAL HACKATHON

CMR Institute of Technology organized the first-ever National level Social Hackathon on 3rd and 4th May 2019 within its campus. This is Hackathon is different from the usual counterparts especially in the city of Bengaluru, that places importance to the social vices to be addressed within the country. Here, innovators from all over the country came together to address the pressing issues of the current society.

The 2 phase event has consisted of the short-listing round and the physical 24 hours hackathon. Five themes that resonate with today's world were finalized as Rural Development, Sustainable communities, Clean Energy and Transport, Industrial

Innovation and Education and Healthcare. The event received approximately 100 registrations from all over the country, out of which 25 teams were shortlisted and were invited for the physical Hackathon in the campus.

The winning teams were awarded cash prizes worth Rs.25k, Rs.15k, and Rs.10k where each prize stands for 1st, 2nd and 3rd Positions. The winning prize was bagged by team Pranav & Team from CMRIT that came up with an e-Bike that uses fast regeneration system instead of batteries. The 2nd and 3rd prizes were given to team Brain Crusaders of PES University, came up with a tech facility for handicapped people and team ZeroBug from CMRIT came up with TOUCH-ME-NOT (safety gloves for women) respectively. As a surprise consolation prizes were also given to teams TechNerds of KLE Dr.M.S.Sheshgiri college of engineering and technology, Belagavi came up with device "MedAssit" and Arms4Help came up with "Waste Banks" of CMRIT respectively. The event turned out to be a major success and ended on a good note.



- The awareness session on ‘Study Abroad – Resources, Tips and Tricks’ was held on 16 March 2019 to understand the various aspects of applying to international universities.
- The seminar on ‘Overseas Education – Now Made Easy’ was conducted on 24 April in the Civil AV Hall. The main speaker was Mr Francis J Kalliath, a consultant and higher education expert from Global Reach

MAKERSPACE

- A group of final year computer science and engineering students under the guidance of Prof. Kartheek designed and developed “Autonomous Land Rover” which is able to move in any terrain surface. All the parts of the land rover was made by 3D printers available in Makersapce @ CMRIT
- Several group of 1st year students have used Makerspace facilities to carry out their Mini Projects. Makerspace has provided necessary materials and supported them to make key parts using Laser cutting Machine.
- Makerspace@ cmrit provided necessary design and facility to fabricate “Voice Controlled Pick and Place Robot” -a final year student project. Some of the key parts are made from laser cut acrylic sheets.



IDEA SCI-TECHATHON

IDEA Sci-Techathon event at CMRIT on 29 March 2019 that witnessed enthusiastic participation from 25 student teams from college and outside. The students presented their sci-tech idea as posters in five different topics of social and scientific relevance that included clean Bangalore, environmental applications of nanotechnology, solutions to current energy crisis, IOT for disaster management and technological application for agriculture. A cash prize of 10,000/- rupees was awarded for the winning team Harshini Chowdhary, Vismaya and Vidhya Shree first year students from CMRIT for their convincing presentation on completely biodegradable sanitary napkin at affordable means developed using high adsorbent natural fibres from fruits and other plant products.



Student Clubs

TECHNOLIX/ETA

DEPT OF TCE/ECE



ETA Club of ECE department organized “Circuit X”, “BlitzChes”, “Code Jam”, “Hardware Hackathon”, “Ethical Hacking”, “VLSI Career Growth and opportunities”, “Technical Poster Presentation”. TAQ Club of ECE department organized “APP Flaws”, Technolix Club of TCE department organized “Arduino Workshop”, “Aptitude Test” events during last 3 months.



Student Clubs

FEEE

DEPT OF EEE

- FEEE Club of EEE department organized “Workshop on Introduction to Free Software and Linux and how to boot into other operating systems”, “Debate on Addiction Kills, Technology Tool”, “Tech Extempore”, “Buzzer Round Quiz” and “Electric Relay”, “Blind Circuits”, “Electrical crosswords” events.



SCIENCE CLUB (E=MCA)

- Science Club of Basic Science organized “Quantum dot solar cell”, “Campus And Lab Safety Awareness” “Quiz”, “Introduction to Analytics and Data Science”, “Tech Quiz: Water Technology: Quality Analysis and Treatment”, “Seminar Competition on 28th May 2019 on Finding Circumference of Earth”, Science quiz events.





SME/SCE DEPT OF ME/CIVIL



- Department of Mechanical Engineering and Civil engineering student association organized “COMPOST AWARENESS”, “NC Quiz”, “Technical Quiz” and “MECHANIST” events throughout the last three months. ECO club of civil department organized E-Waste collection drive, Slogan writing and Poster Making competition,



RISE/ACE CLUB

DEPT OF ISE/CSE



- RISE and ACE clubs of ISE and CSE departments organized “CodeSwap - Coding Competition”, “Introduction to free software - Booting OS”, “Progressive Web Apps - Web Applications”, “Flutter 101 - Flutter”, “Technical Topics”, “Design Thinking - UI Design”, “Micromanagement - Managerial skill development”, “Node.js”, “JavaScript Primer”, “Introduction to data visualization and manipulation”, 24 Hours hackathon “404 Runtime terror”, “What happens in a Hackathon”, CMR Codes4.0 events across last three months.

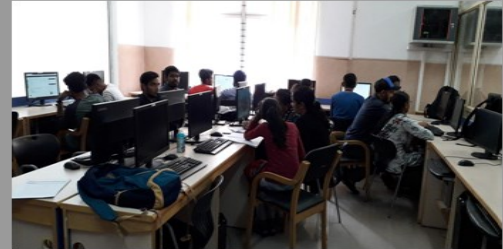




MARKETING / PROTOCOL CLUB

DEPT OF MBA/MCA

- Protocol club of MCA department organized “Digital Poster Designing Competition”, “Java coding skills”, “Java - Mock Interview”, “Hands on Session on Netbeans & Java”, “Web Site Designing”, “IT Quiz”, “Mind Palace” events in last three months.



- Finance and Investment Club of MBA department organized “DYNAMIC DASHBOARD ON EXCEL”, “Digital marketing”, “FUNDAMENTAL & TECHNICAL ANALYSIS OF NESCO”, “Business Analytics using Excel” events throughout the last quarter.



Non-Technical Clubs

Dance Club organized Hip Hop Workshop with ADDYCTION on 29th April 2019-05-08



CONNECTING TO THE INDUSTRY

INDUSTRIAL VISITS

- Basic Science department organized a visit to IISc, Bangalore on 23rd March 2019
- Basic Science department organized a visit to HAL ,Bangalore on 29th March 2019
- MCA department organized industrial visit to COMPLETE OPEN SOURCE SOLUTIONS (COSS), Bangalore on 13th April 2019
- Basic Science department organized industrial visit to Visvesvaraya Industrial and Technological Museum, Bangalore (VITM) on 21st April 2019.
- Department of EEE organized Industrial Visit to Chamundi Electrical Industries on 22nd April 2019.
- Department of EEE organized Industrial Visit to Rajmane Industries Pvt . Ltd., on 27th April 2019
- MCA department organized industrial visit to Samsung Opera House, Bangalore on 22nd April 2019
- TCE department organized industrial visit to BSNL Mysore on 06th May 2019.
- BS Department organized a visit to HAL Museum on 6th May 2019
- Civil Department organized a visit to Water Treatment Plant at Thorekadanahalli, Kanakapura road, Malavalli taluk, Mandya on 05th may 2019.
- EEE Department organized a visit to Hoodi Substation on 06th May 2019



CONNECTING TO THE COMMUNITY

The Department of Mathematics organized visit to Mitra Jyothi on 29th April 2019 as a part of social activity. Executive Director, Ms.B.Sathiya presented an orientation about their activities. Our students spent some time with visually impaired individuals .



CMR Institute of Technology in association with Cultura'19, Rotaract Club of CMRIT as well as NSS Association of CMRIT organised a walk in honor of Breast Cancer Awareness celebrating Women's Day on 8th March 2019



"Total Literary and Education" group of NSS club CMRIT organized "SLUM SURVEY" on 8th April 2019



NSS unit and TEDxCMRIT jointly organized Free Eye Check Up Camp on 8th April 2019 in association with Dr. Shetty's Devi Eye Hospital, Whitefield



NSS unit CMRIT organized "BLOOD DONATION CAMP" on 9th May 2019. Total 207 units of blood donated making event was a grand success.



NSS Unit of CMRIT in association with TEDx CMRIT as well as Students council of CMRIT organised a Midnight marathon event RUN FOR THE BRAVE on 8th March 2019 in honour of our Indian soldiers, by donating 50% of proceeds to bharatkeveer.gov.in



Department of Mathematics organized a visit to Bannerghatta National Park for the first year B.E students on 26th may 2019 as part of social activity.

To create awareness among people to vote NSS unit of CMRIT conducted 'I PLEDGE TO VOTE' Event at April 8, 2019 in the basket ball court area of CMRIT.



TEDx CMRIT

TEDxCMRIT 3.0 was organized on 27th April 2019 at CMRIT. This event aimed to bring people together, where visionaries, who are incredible in their own fields, share their knowledge to spark conversations and make an impact.

We had 7 speakers and 2 performers who blew us all away. While **Kranti's** talk emphasized on the importance of empathy in the field of design thinking, **Farah Magi's** talk really made us ponder about self-love and acceptance. From **Madhavi Shankar's** talk on women empowerment, **Prateek Khandelwal's** powerful talk on accessibility and looking beyond one's physicality to **Vinay's** gastronomic journey of Bangalore, we left no stone unturned. We were also introduced to a beautiful amalgamation of innovation and business by **Nirupa Shankar**. **Eshika Fyzee's** talk was truly a wakeup call for us to save our environment and wildlife. Our two performers **Shubham Roy**, with his beautiful voice and **Vasu Dixit**, with his vibrant energy entertained the crowd. The food was yet another highlight at our event. People enjoyed the gourmet breakfast from Aubree and a homely delicious lunch by Kapoor's Cafe. But what truly stood out was the theatrical entry of Aubree chocolates who surprised everyone with their scrumptious customized dessert. Our TEDx event is incomplete without the red velvet cupcakes. There were smiles all around with people making memories to last a lifetime.



TEDxCMRIT organized an Open Mic on 22nd April 2019, which gives an opportunity and a platform to all the students to come forward with their thoughts and talents, so that the audience can also learn a great deal from them.

TYL (TIE YOUR LACES)

TYL Training and Placement

- TYL-Soft Skills Training Programmes was organised from 8th to 10th April 2019
- Two day TYL Certification program for 4th Sem students on “PLC & Scada” was organised from 22nd to 23rd April 2019



- CMRIT organised Industry Campus Connect Day (ICCD) on 30th April 2019 for our pre-final year students of BE, MCA and MBA programs. On Industry Campus Connect Day, we are invited senior business, technical and human resources personnel from organizations who visited our campus as well as evaluated potential to visit our campus for hiring final year students. These delegates addressed students for 30 minutes slots at scheduled time that communicated in advance. We were happy to have these delegates spend the whole day in college interacting with faculty and students.

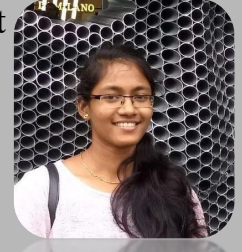


- Ellucian Placement Talk was organised by placement cell by Naveen (Hiring Manager) on 20th May 2019.

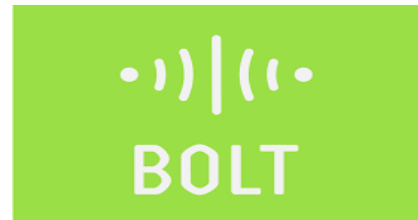




Deepa N, Manogna M of CSE department bagged highest package of 18 lakhs from VMWare



Companies visited for campus placement during the quarter March-19 to May -19



And many more.....

CULTURA' 19



Cultura'19 was held on 22nd & 23rd March. The Headliner night saw spectacular crowd participation for the likes of DJ Daniella and Mashd and Kutcher with Sunburn Campus.

Cultura'19 hosted Mr. Abhijit Bose, CEO, Whatsapp India as our Inauguration Chief Guest. For the Valedictory Ceremony, We had hosted Smt Rekha V Kumar, Renowned Serial and Film Actress as our Guest of Honor and Om Sai Prakash, Renowned Film Director as our Chief Guest.

Cultura'19 was proud to associate with FBB (Fashion at Big Bazaar) as our Fashion Wear Partner, Rapido as our Travel Partner, Radio Partner Radio Mirchi, Gaming Partner Acer, Breads and Banter as our Food Partner, Endeavour as our Education partner, media partners News 9 and TV9, to name a few and all our stalls for making the fest what it is.



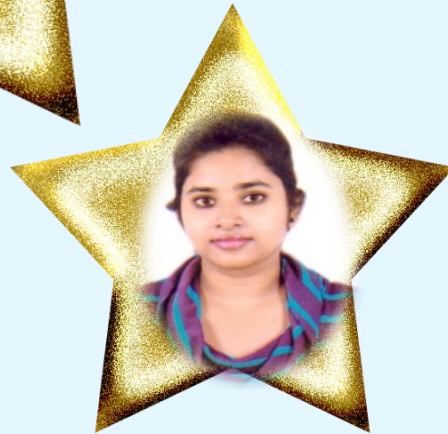
STUDENT ACHIEVEMENTS

VTU RANK HOLDERS

SUKANYA P
(MCA) 1st Rank



SANDHYA K V
(M.Tech, LDC)
2nd Rank



MOUMITA MANNA
(M.Tech, LVS)
4th Rank



AKSHITHA.T
TCE, 6th Rank



SWATI
(M.Tech SCN), 6th Rank



KAVYS S
ISE, 6th Rank

- Aditi Sharma, Ashwini Boyite P, Dhruv Vatsa Mishra, Gautam Chauhan, Shailav Shreshta, Bhavya of ISE & CSE departments won Smart India Hackathon 2019. Winner among 24 teams, Rs 1,00,000/- , developed a standalone e-resolution which can be used by any e-commerce player .
- Souptik Mukherjee of EEE department won at National Level 2nd Prize in “Zero Wait Acoustics” - ANAADYANTA-2019



- Souptik Mukherjee of EEE department won at National Level 1st Prize in “Indian Group Singing” - VISAGES2K
- Ria Augustine of EEE department won at National Level 4th prize in “Ideate event” - VERTECHX9.0.
- Ria Augustine of EEE department won at National Level won 2nd prize in IOT event - VERTECHX9.0: IOT

- Souptik Mukherjee of EEE department won 1st prize in Instrumental Solo - SYNAOPSE-2019
- Souptik Mukherjee of EEE department won Mr. Cultura - CULTURA-19
- Souptik Mukherjee of EEE department Won 1st prize in Wanderlust- CULTURA-19



- Furqaan Shariff F of ECE department Won at state level in Regional Pre-Finals of ICT Academy Youth Talk, Karnataka
- Jhanavi Trilok ,Monika A B of ECE department won at State Level Technical Project Exhibition, First Prize, Rs. 20,000 cash prize - Karnataka Science and Technology Academy (KSTA)
- Pradeep Kumar R of CSE department Won first place in web designing event.
- Hari Haran S of CSE department Won first prize with cash of Rs.5000 in Counter strike:global offensive
- Raksha Ghosh of CSE department Won as a Student Marketer for Red Bull National conference in the National Consumer Collecting Conference 2019.

- Ashav Srivatsava, Mukul Nair of CSE department Won 1st place in the Code Swap conducted by ACE Club CSE Department.
- Ajay M ,Athreya A Uppili S of CSE department Won 2nd place in the Code Swap conducted by ACE Club CSE Department.
- Abhilash S of CSE department Won 1st place in python coding contest - COSS INDIA "EVERY ENGINEER IS A CREATOR"
- Hari Pranav A of ISE department Won 2nd Prize of Rs 5000 in Dora Hacks Hackathon
- Souptik Mukherjee, Apurva Shiva Kumar ,Shantanu Singh Parihar, Umesh Giri of EEE & CSE departments won the 1st place in the event Vox Unplugged , cultural fest held by MVJ college of engineering
- Pranav Polepaka of ISE department Won 1st Prize of in UDBHAV'19 - Western Acoustics Solo
- Chandra Kiran of EEE department won 1st Prize in Electrical relay cultura 19.
- Tejaswini N ,Manikanta V, Aman Singh, Bhagesh Jainapure, Rachel P, Sudharshan Reddy R ,Varun Kumar V , Sid-daramesh, Manigandan R attended the Project Expo and Innovation Challenge named "Prerana 10" organized by GITAM University and were ranked in top 10 out of 50 teams.
- Pavan Teja B, Divakar Babu published a paper titled "Methodologies for trac congestion prediction in a IOT based smart city using machine learning and CNN. " Second International Conference on Emerging Trends In Science & Technologies For Engineering Systems
- Diana Elizabeth Roy, M Keerthana, Manoj P, Prannay S Reddy published a paper titled "A STUDY ON FAKE NEWS DETECTION USING NAÏVE BAYES, SVM,NEURAL NETWORKS AND LSTM " at International conference on recent engineering and technology ICRET 2019.



- Mamata B. Kuntoj, Megha Laxminarayana Hegde CSE were awarded with a prize amount of 5000/- Rs for the final year project titled “Illegal Parking Notification System Using Image Feature Extraction Method” by VTU, FOSS Cell, Belgaum.



- Vibhav Kunj has Won - Best Paper Award at NETCC for the paper titled “DrishtiShakti - Lightning fast object recognition for price-sensitive smart devices”\

- Swapnil Rajpal, Won - Best Paper Award at NETCC for the paper titled “Loyalty Management System using Dynamics 365”

- Aditi D Bhat, Ishaan Abhinav Won - Best Paper Award at NETCC for the paper titled “Hydravo – A Smart Gardening System Using Internet of Things (IoT)”

- Pavan Teja B Diwakar babu, Suraj R bellad, Pawan V, Won - Best Paper Award at NETCC for the paper titled “Data transmission to a portable speaker using Li-Fi technology and solar charger for smart phones”

- Aswath A Chandrasekharan, Ajay Krishna Anguluri, Pragati Jha, Tanya Singh, and Dr. Binish Fatimah, Won - Best Paper Award at NETCC for the paper titled ““Wind noise cancellation using TQWT and adaptive filtering”



- Pavan Teja B, Diwakar babu has Won - Best Paper Award at Second International Conference on Emerging Trends in Science and technologies

- Pillai Vignesh Sureshkumamar has won Mime at MVJ College of Engineering

- S.K. Yukta Swamy, Tishyaa Sarkar, Vidhi Srivatsava of EEE department Won 25,000/- in Social Hackathon for their project BOOSTER BIKE

- Darshan C.V, Ganesh Swaroop V, Kishore S, Kuamreshan Subramaniyan R, R. Jayendran of ISE department are the winners of the Workshop - Every Engineer is a creator awarded by COSSINDIA

SPORTS ACHIEVEMENTS

- CMRIT Athletic team participated in Inter-CMR Annual Athletic meet which was held on 15th march at CMRU Athletic Ground and won Overall Championship.



- CMRIT Cricket team participated in VTU Bangalore Central Zone Cricket Tournament from 6th march to 14th march which was held at SEACET and secured Runners Up position and qualified for VTU Inter-zone Cricket Tournament.



- CMRIT Football(M) team participated in UVCE Inter College Football tournament which was held from 30th April to 2nd May at Central Ground, Bengaluru and secured Winners Position.

- CMRIT Hockey(W) team participated in VTU Single-Zone Hockey tournament which was held on 20th April at SIT, Tumkur and secured Winners position.



- Shubham Singh(1CR15EC176) participated in All India Inter University Kickboxing Championship -57kg category, which was held on 8th-11th March 2019 at Vishakhapatnam, Andhra Pradesh and won Bronze Medal.



- Shubham Singh participated in WAKO National Kickboxing Championship, which was held on 24th-28th march 2019 at Pune and won Bronze Medal.

- Mr Mayur Shivkumar (1CR16CS087) participated in INTERACT-2019 Deadlift Competition in 120kg category which was held on 10th and 11th May at Global Academy of Technology, Bengaluru and secured 1st place.



FACULTY ACHIEVEMENTS

- ◆ Prof. Karthik N M received consultancy amount of Rs.12,000/-
- ◆ Prof. Preethi A of ECE department scored 90% in NPTEL online certification on “Embedded system design with ARM”
- ◆ Dr.Sharmila K.P completed Ph.D. in Wireless Communication Networks under VTU. .
- ◆ Dr. P. N. Singh of CSE department received AICTE- MODROBs grant of Rs. 16.45 Lakhs for Data Science Lab
- ◆ Dr. P. N. Singh of CSE department received AICTE-FDP grant of Rs. 6.3 Lakhs for Big-data analytics & Python Programming
- ◆ Dr. S Gokula Krishnan of MBA department served as a Journal reviewer for Journal of Human Resource and Sustainability Studies (JHRSS).
- ◆ Dr. Nasir Abdul Quadir of ECE department served as a Journal reviewer for MWSCAS.
- ◆ Dr. Nasir Abdul Quadir of ECE department served as a Journal reviewer for IET Microwaves ,Antennas and propagation (SCI Journal).
- ◆ Dr. Nasir Abdul Quadir of ECE department served as a Journal reviewer for IEEE 62nd International Midwest Symposium on Circuits & Systems.
- ◆ Dr. CHINNAIYAN of ISE department served as a resource person at Tutorial ,and Conference in International Conference India on Advances and Applications of IoT, Big Data Analytics and 5G IICI 2018 - IETE & C-DAC
- ◆ Dr.Pushpa Mohan served as a session chair at National Conference on New Generation Trend Paradigm, East Point college of engg and technology, Bangalore
- ◆ Dr.Pushpa Mohan served as a Jury member for Project Exhibition -ISE_Forum Byte-2019 at Sri Venkateshwara College of Engg ,Bnagalore
- ◆ Dr. Paras Nath Singh served as an expert member in Scrutini of questions/Answers for recruitment exams, KEA, Govt. of Karnataka
- ◆ Dr. Vijayananda Kaup, Dr. Jacob Augustine and Dr. Mohamed Iqbal served as an expert for National Social Hackathon 2019



- ◆ Dr. Kavitha P served as a session chair at National Conference on Big data,Internet of Things,Cloud and Security (NCBICS) 2019 CMRIT, Bangalore
- ◆ Dr. Jhansi Rani P ,Dr. Sugato Chakrabarty, Dr.Pushpa Mohan, Dr. Paras Nath Singh, Dr. Kavitha P, Dr.Jacob Augustine, Prof.Yesudian Rajkumar JK, Prof. Manoj Challa, Prof. Sreedevi N, Prof.Jagadishwari Palani served as a session chair at National Conference on Emerging Technologies on Computing and Communication (NETC²)-2019 CMRIT, Bangalore
- ◆ Dr. Nasir Abdul Quadir served as Reviewer for IEEE Access Journal.
- ◆ Dr Chitra k, HOD, EEE received Adarsh Vidya Saraswati Rashtriya Puraskar, Awarded by Global Management System.



Research Paper, Book &Articles

- ◆ Dr.R.Chinnaiyan of ISE department published Book Chapter titled “Emergence of Pharmaceutical Industry Growth with Industrial IoT Approach” May –June 2019, Accepted by Elsevier
- ◆ Prof. Parvathy Thampi M.S of EEE department published journal paper titled “A Review on Controlling Techniques for Permanent Magnet Synchronous Motor(PMSM)and Current State of the Art in the Research Area” in Foundation of Computer Science, FCS.
- ◆ Prof. Chetan gowda and Prof.Vinay B K of ECE department published journal paper titled “DESIGN AND MODELLING OF A NANOMECHANICAL PRESSURE SENSOR USING SILICON PHOTONIC CRYSTAL” in Journal of Advanced Research in Dynamical and Control Systems (JARDCS).
- ◆ Prof. Chetan gowda of ECE department published journal paper titled “Integrative Studies To Design And Validate Wearable Footwear Among Neuropathic Patients” in DMSCRR_2019
- ◆ Prof. Pappa M of ECE department published journal paper titled “EFFICIENT CRYPTOGRAPHY BASED NON-ORTHOGONAL MULTIPLE ACCESS DESIGN FOR 5G BASED IOT SYSTEMS” in International Conference on "Contemporary Engineering & Technology" (ICCET 2019)
- ◆ Prof. Poonam Vijay Tiajre of CSE department published journal paper titled “Exploring popular topic

- models” in International conference on Advances in Electrical and Computer technologies ICAECT 2019
- ◆ Dr. Bijayani Panda, Arpit Pande (1CR16ME020), Mihika Nandakumar (1CR15ME052) and Pavithra S (1CR15ME065) of Mechanical department published journal paper titled “Feasibility study of diesel series hybrid system for three wheeler application” in WE local Bangalore 2019 conference held by Society of Women Engineers
 - ◆ Dr. Chinnaiyan R of ISE department published journal paper titled “Context-Aware Smart reliable Service Model for Intelligent Transportation System Based on Ontology” in International Conference on Recent Innovations in Computing (ICRIC-2019) - Recommended for Publication in LECTURE NOTES IN ELECTRICAL ENGINEERING (LNEE), SPRINGER (Scopus Indexed).
 - ◆ Prof. Shanthi M B published research paper titled “Secure Localization in UWSN using Combined Approach of PSO and GD Methods” in IJRTE.
 - ◆ Dr. CHINNAIYAN R published a paper titled “Smart and Reliable Transportation System based on Message Queuing Telemetry Transport Protocol” at 3rd International Conference on Intelligent Computing and Control Systems (ICICCS-2019).
 - ◆ Dr. CHINNAIYAN R published a paper titled “Internet of Things based Agro based monitoring using drones with blockchain” at 3rd International Conference on Intelligent Computing and Control Systems (ICICCS-2019).
 - ◆ Prof. Poonam Vijay Tiajre published a paper titled “A Study on fake news detection using Naive Bayes, Neural network and LSTM” at International conference on recent engineering and technology ICRET 2019
 - ◆ Pushpa Dr. Mohan published a paper titled “Prediction of User Behavior Pattern in Multimedia Social Network” at International Journal for Research in Applied Science & Engineering Technology (IJRASET).
 - ◆ ARIJIT DATTA published a paper titled “Enhanced sensitivity of fiber optic evanescent wave absorption-based concentration sensor by shining a Bessel Gauss beam and effect of fiber bending on the sensor response: a theoretical analysis” at Society of Photo Optical Instrumentation Engineers (SPIE).
 - ◆ Prof.Sudhakar from ISE published paper titled “Energy Aware Buffer Management Routing Protocol (EABMRP) for improving the WSN lifetime based on Energy Harvesting Model” in International Journal of Recent Technology and Engineering (IJRTE).
 - ◆ Dr.K. Meenakshi published paper titled “Semigraph energy change due to edge deletion and its relation with distance energy” at International Conference on Recent trends in Technology, Engineering and Applied Science (ICRTTEAS 2019)

FUTURE ACTIVITIES

Activities planned between June to Aug 2019

| S.No | Date | Activity | Department / Cell |
|------|----------------------------|---|-------------------|
| 1 | 8 th June 2019 | Industry-Academia Coffee meet | MCA |
| 2 | 10 th June 2019 | Research Paper writing for PhD pursuing assistant professors | I & E Cell |
| 3 | 14 th June 2019 | 1-day workshop on mapping question paper to blooms levels | IQAC |
| 4 | 24 th June 2019 | FDP on Advanced Pedagogy methods and ICT Tools | ISE |
| 5 | June 2019 | Visit to Marasandra Village for the project implementation phase ! | EE & C Cell |
| 6 | 1 st July 2019 | AICTE Sponsored - A Two Weeks FDP on "Big-data Analytics & Python Programming | CSE |
| 7 | 1 st July 2019 | Two-week, AICTE sponsored FDP on Advancement of Additive Manufacturing. | Mechanical |
| 8 | 15 th July 2019 | 2 weeks of TYL training on AUTO CAD, | Civil |
| | 15 th July 2019 | 2 weeks of TYL training on Electrical Machines | EEE |
| 9 | 19 th July 2019 | TEQIP sponsored one week workshop on "Preventive and breakdown maintenance of Electronics equipments" | ECE |
| 10 | 22 nd July 2019 | FDP on Hands On Training On Making Teaching Aids For Undergraduate Physics Curriculum | Physics |
| 11 | 24 th July 2019 | One day workshop on Advances in Discrete Mathematics | Mathematics |
| 12 | 29 th July 2019 | One day Training Programme on Advanced Material Characterization Techniques | Chemistry |
| 13 | 1st week Aug 2019 | One day workshop on "Developing the managerial Skills in Future Professionals" | MBA |
| 14 | 23rd Aug 2019 | Industrial Visit to ISRO Sattellite Control Facility Hassan | TCE |

STUDENT COUNCIL



Ethnic Day

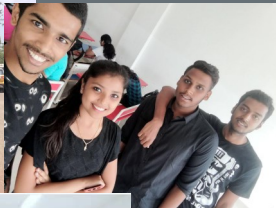
Students of CMR Institute of Technology celebrated their Ethnic Day, "AHIMAYA" held on March 9 2019.



CUL-WEEK

As part of pre-CULTURA events CUL-WEEK was celebrated with multiple events which included PHOTOWALK 2K19, Wear Your Mood Monday, Twinning Tuesday, Wednesday, Black and White Thursday.

Formal



CUL-WEEK 2K19.

WEAR YOUR MOOD MONDAYS: Show us how you're feeling with the colour we've got for you!
Date: 18.03.2019

TWINNING TUESDAYS: Haven't got a twin? Dress similar and make one !
Date: 19.03.2019

BLACK AND WHITE WEDNESDAYS: Let's get retro and revisit the past.
Date: 20.03.2019

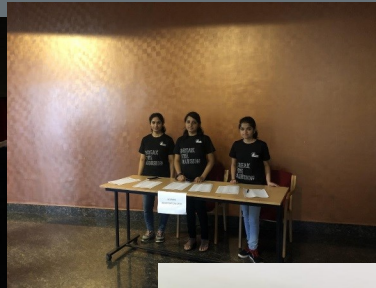
FORMAL THURSDAYS: How better to end Cul-Week formally?
Date: 21.03.2019



ALUMNI ASSOCIATION

Alumni Meet

Alumni's meeting was held on Saturday, 23rd March 2019. The event provides an opportunity to alumni to interact with the juniors and guide them in various aspects, the event witnessed around 250 alumni participants.



Alumni Interaction

Alumni interacted with all fellow students to discuss about the challenges and expectations of industry and also served as alumni evaluator's in judging the teams for Hackathons.



TECHNICAL ARTICLES/PAPERS



TECHNOLOGY IN OUR HANDS

The Future is unpredictable! Nobody can determine what or when anything will happen. But, the one thing that comes with future is the thrill to assume, predict and imagine all the different types of possibilities. At the present, the whole world assumes and believes that the future is in Artificial intelligence, Green technology, smart solutions and things that are necessarily sustainable and can make impossible a huge possibility. The ones suffering the most are the students, especially the ones pursuing technical studies.

Right now, this unpredictability of the future is pushing all of the Engineers both pursuing and practicing, into a chaos of opportunities and odds, making it difficult for one to determine, what is really necessary and what is not. So, what can be done? How does a student determine what is necessary for oneself?

At the present, the closest solution for all engineering students is college, the only institute that can help through this. For instance, I am a civil engineering student myself, and my college has, is helping me a lot to get through this. One might suppose assume that being a civil engineering student all I have to learn is about subjects or technologies related to civil engineering like surveying, drawing etc. Well, I must let you know that it is the biggest misconception, and I realised this after coming to the college. Our college organises many technical events every semester, every month actually ranging from coding to hackathon, from treasure hunts to technical hunts such as survey hunt, expert talks, social events, TYL's, project works and many more. And, the best part is that, these are not restricted to a specific branch or a group of people. Most, if not all of the programs and events are open to all and the faculty with the students are encouraged to participate and learn all that they can. Many of the students participate and take full opportunity of it, because it gives so much practical exposure. Many of them have realised their potential and capacity because all the events held. My college has helped me believe that the Future of technology in our hands and we can definitely create the way we want it to be, if one cannot predict it!

**-Pranathi K
(1CR17CV049)**

TECHNICAL ARTICLES/PAPERS

TWO DIMENSION (2D) MATERIALS



Two-dimensional (2D) materials have been considered as a promising building blocks for the next generation electronic and optoelectronics devices due to their unique and fascinating physical properties. Compare to 3D materials, layered 2D materials exhibit different properties depending on their number of structured layers. These materials grabbed its attention in the year 2004 since the preparation of single-layer graphene by Andre Geim and Konstantin Novoselov demonstrated that exfoliated single-polyhedral-thick 2D material from vander Waals solids was stable. Graphene has been explored to show exceptional properties including high current density, ballistic transport, chemical inertness, high thermal conductivity, optical transmittance and super hydrophobicity at nanometer scale. Single-layer graphene's band structure exhibit the linear dispersion at the K point giving rise to novel phenomena that is anomalous room-temperature quantum Hall effect, which has opened up a new category of “Fermi-Dirac” physics.

Beyond Graphene the 2D materials which are extensively studied are single element 2D material - black phosphorus (BP) and compound 2D materials -Transition metal dichalcogenides (TMDCs). These materials show different property beyond quantum confinement i.e black phosphorus (BP) exhibit an evident red shift in the band structure as the number of layers increased and TMDCs show indirect-to-direct band gap transition when it changes from multilayer to single layer. The other families of van der Waals solids that have been exfoliated into single layers are h- Boron nitrate (hBN), vanadium oxide derivatives, and chalcogenides such as Bi_2Te_3 , Sb_2Te_3 , and $\beta\text{-FeSe}$. In recent days, another class of 2D materials, MXenes has been fetched interest similar like graphene. MXenes are few atoms thick layers of transition metal carbides, nitrides, or carbonitrides.

Overall, 2D materials are the current focus studied to show suitable in all fields of material technology. The author is also contributing on 2D - TMDCs materials i.e MoS_2 and WS_2 to develop a defect structured tuning the optical properties suitable for optoelectronic applications.

Dr. Ramdas Balan

TECHNICAL ARTICLES/PAPERS



MACHINE LEARNING - THE FUTURE AT OUR SCOPE

The vast amount of information currently available on the Internet is raising some technologies that until recently were almost exclusively part of Universities, Research Centers and Large Companies. I am referring to the technologies related to Machine Learning and which I would like to give a general overview, mainly from the technological point of view.

What is Machine Learning?

Machine Learning is a part of Computer Science, closely linked to Artificial Intelligence (AI), which from the application of algorithms can learn, establish patterns on the data, and make predictions about them.

What are its practical applications?

- Recognition **voice**.
- Face detection for **identification** of people.
- **Product recommendations** on online sales websites.
- Medical diagnoses to identify **diseases** based on their symptoms.
- In **cyber security**, to detect attacks and mitigate their possible effects

I would like to mention very briefly the different types of algorithms used in the problems of Machine Learning. The first classification is based on the data presented to the learning system:

1. **Supervised learning (ii) Non-Supervised Learning**

The second classification deals with the function of the algorithm and the output we expect from it:

1. **Regression (ii) Classification (iii) Clustering (iii) Recommendation**

Conclusion, the future is here

We can take a look at the "State of the Art" in Machine Learning, with the sectors and companies already using these technologies. **we are already using** these algorithms **unnoticed** in many of the facets of our daily lives, in applications totally integrated with our devices, but their use will go much further, and researchers continue working on algorithms every time more perfect. With the increasingly easy access to these technologies by anyone, the competitive advantages are so important that no technology company can disregard their use.

Dr. P. Rajendra

TECHNICAL ARTICLES/PAPERS

BATTLE BETWEEN HTTP & HTTPS

In this ever-evolving technology era, security on the web has become a prime concern for everyone. News headlines of data breaches; companies and systems getting compromised are all over the place and are creating a fearful ecosystem. Even though big organisations across the world are taking serious and advanced steps to eliminate or at least mitigate cyber threats, new vulnerabilities and data breaches are being reported on a daily basis. Today, it has become imperative to do a better job of securing our data online.



When the concern is security on the web, talking about HTTPS is must. Today, if you are not making use HTTPS you are putting yourself and your data in risk. You all must be wondering now, what is the difference between HTTP and HTTPS? And why HTTPS is more secured. In this article, we will be seeing just that.

HyperText Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. In simple words, it is a protocol that is used to transfer hypertext over the Web. Even though it has been one of the widely used protocol, it couldn't last for a long time because of the security flaw it poses — data (i.e. hypertext) exchanged using HTTP goes as plain text. Meaning, if anyone establishes a connection between the browser and the server can keep an eye on the data. Today, in order to set up a secure session between server and browser, almost every website is getting rid of HTTP and implementing HTTPS.

Obviously the main reason for us to switch from HTTP to HTTPS is security and the 'S' here stands for Security and to check if you are on a secured connection just see the address bar and look if a lock sign is there or not; if present it means that you are on an encrypted website. This is highly needed for the sites where you share your sensitive details like bank information, government documents information, ATM pins, etc. Another flaw in HTTP is that it enables attackers to slow web servers by overwhelming them with seemingly innocent messages that carry a payload of gigabytes of data, putting them into infinite loops and even causing them to crash. Another major benefit of using HTTPS is that it prevents Man in The Middle (MITM) attack. It is an attack where the attacker secretly establishes space and eavesdrop on the communications between two parties. Sometimes, the attacker also alters the communication between both the ends, and they believe they are directly communicating with each other. So, when a website uses HTTPS, it encrypts the communication, making it difficult for third-party connections to intercept the network.

So, the bottom line is that if you are still using a HTTP connection you are compromising your data big time. And now, we can say that the clear winner of the battle concerning security on web is HTTPS.

HITESH BHALOTIA
(1CR17CS050)

TECHNICAL ARTICLES/PAPERS



ARTIST NEIL HARBISSEON, A COLOR-BLIND ARTIST BECAME THE WORLD'S FIRST CYBORG

What does Cyborg mean?

A cybernetic organism or “Cyborg” in IT is defined as an organism with both biological and technological components. In some definitions, a cyborg is described as a hypothetical or fictional creation. However, in a technical sense, humans can be seen as cyborgs in various types of situations, including the use of artificial implants.



Artist Neil Harbisson wears an antenna that allows him to "hear" color through vibrations in his skull. Neil Harbisson can "see" in UV thanks to an antenna-like implant that boosts his perception of light and gives him super-senses

From prosthetics to pharmaceuticals, humans have been using technology to alter their physical and mental capabilities for thousands of years. Now, with our rapid advances in technology, some people are embracing human augmentation as a means of expressing themselves and experiencing the world in a totally different way.

Neil Harbisson, 33, is one of these people. The artist was born with achromatopsia, or complete color-blindness. Far from a disability, Harbisson considers his natural world-view to be an asset, though he did want to be able to understand different dimensions to sight. Over the last 13 years, he has been able to “hear” visible and invisible wavelengths of light. An antenna-like sensor implanted in his head translates different wavelengths into vibrations on his skull, which he then perceives as sound. Often called the world’s first official cyborg, after the British government permitted him to wear his headgear in his passport photo, Harbisson says that such technological augmentation is a natural, and maybe even necessary, strategy for humans to adapt to an uncertain future.

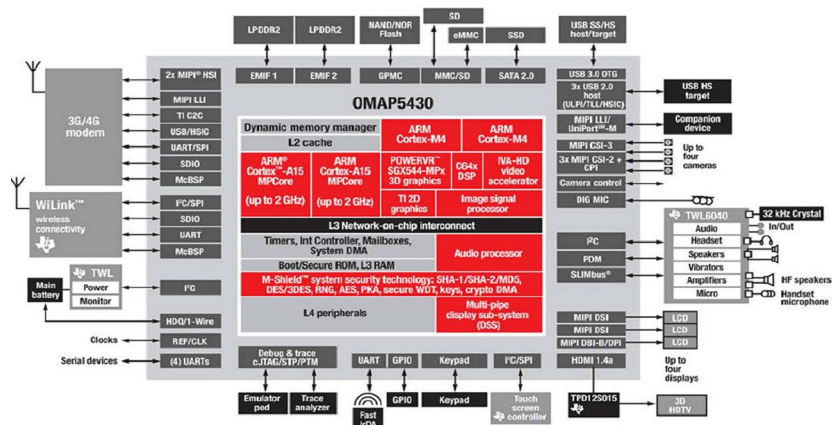
Ms.Bhavna(CR16EC027)

TECHNICAL ARTICLES/PAPERS

MPSoC

A multiprocessor system-on-chip (MPSoC) has Heterogeneous multiple processor cores. MPSoCs are custom architectures that balance the constraints of VLSI technology with an application's needs. MPSoC has following blocks on chip;

- Heterogeneous memory systems blocks, often using scratchpad RAM and direct memory access (DMA) and irregular structure.
- Timing sources to generate clock signals to control execution of SoC functions using Crystal oscillators and Phase-locked loops (PLL).
- Peripherals including counters and power-on reset generators
- External interfaces, for communication protocols which are often based upon industry standards such as USB, FireWire, Ethernet, USART, SPI, HDMI, I²C, etc. each interface is typically to one given core or logical unit on the MPSoC
- A network-on-chip (NoC) to communicate and share data between the processors and the functional units of the MPSoC



[Cadence, MPSoC Designs: Driving Memory and Storage Management IP to Critical Importance, 2011]

Advantages of MPSoC

- Real time computation
- More transistor density
- Less VLSI Area for given application
- Energy Efficient
- Proper I/O Connection

Mamatha N (1CR17LVS04)

VISION

“To be a nationally acclaimed and globally recognized institute of engineering, technology and management, producing competent professionals with appropriate attributes to serve the cause of the nation and of society at large”

MISSION

CMRIT seeks to realize its Vision with a Mission to:

- *Create the necessary infrastructure appropriate to the needs of the programmes and activities of the institution.*
- *Attract and retain well-qualified faculty and supporting staff.*
- *Create and facilitate an ambience for interdisciplinary engagement, leading to a healthy competition among students and staff, in pursuit of excellence through lifelong learning.*
- *Develop and operate mutually-beneficial programmes, partnering with industries, institutes and individuals of national and international repute.*
- *Create mechanisms to understand societal needs and provide solutions for the betterment of society.*

From the Editor's desk

Dear Readers,

It is indeed a great pleasure in bringing you the newsletter of CMR Institute of Technology, Bangalore-CMRIT CONNECT, Vol-02, Issue-04.

As we are busy wrapping up our academic session, we want to take you through some journey of achievements, success, and various activities that CMR IT has been through as an educational institute. As someone says, *education is all-round development*; CMR IT has made tremendous effort in bringing both academic thirst and social responsibility to a balance ground. It is a joy to see both faculty and students growing together with each passing day.

A big thank you to all the people who have contributed writing their wonderful and intellectual articles, without which there wouldn't have been this newsletter issue.

Editorial Team

Testimonial's -Alumni's and Parents



My time in CMRIT has contributed to some of the most cherished memories and learning I hold on to. From the first day in college, to the day I graduated, we were encouraged to look at engineering as a stepping-stone to a bigger purpose.

The department of computer science did a great job helping students identify and pursue their strengths. Though textbook education and grades were not my strong suits, the support and encouragement extended by my professors is commendable. In retrospect, my four years in CMRIT seeded the thought of entrepreneurship and helped me identify my abilities. The incredible bonds and friendships that were developed seven years ago are still a part of everyday life today.

Madhavi Shankar (2008 – 2012)

Co-Founder & CEO – SpaceBasic, Inc. (IN | USA)

Former Product Manager, Asia Pacific - Vodlo (Sydney, Australia)
Govt of India & United Nations, Top 60 Women Transforming India 2018

“It all went by in a flash”, me as an undergraduate student in Civil engineering at CMR Institute of Technology, Bangalore was rewarding beyond belief and was enough to make myself feel indebted to the college forever. The education which I received in Civil engineering department has enabled me to combine my unique skill set, strong fundamentals in Civil engineering and Project Management skill to adapt to a fun and challenging work environment.

“The best teachers will not give you something to drink, they will make you thirsty. They will put you on a path to seek answers”- teachers here work closely with their students, which allow them to know their strengths and difficulties of each individual, they are very caring and interested in student’s well-being. We were more like a family. The college prompted us to pursue higher education and responsibly helped the interested students, too. The college organized various pre-placement programmes for each and every student to crack the jobs – during on and off campus placements.

We maintained a very healthy senior-junior relation at our college. To conclude, the various events held at our college reflected the intensity of bonding among us. I want to put forward my sincere and honest thank you to all the faculty members of Civil Department for their valuable and timely support. I am a proud alumni of Civil Engineering Department of CMR Institute of Technology.

Abhishek Mohanty (2012 - 2016 batch)

Pursuing Post graduation in Advanced Construction management from National Institute of Construction Management and Research (NICMAR), Pune





When I reflect on my four years in CMRIT as an Electronics and Communication student, I can happily say that the experience not only made me a better person, but also prepared me in unpredictable ways for my career. With best in class curriculum with incredibly supportive classmates, and professors who were nothing short of champions, I was challenged to discover my true potential.

CMRIT fosters creativity and provides the platform to explore education beyond the classroom. The Professors here, who are stalwarts in their field of study, are ever ready to help students at any time of the day and they have been the backbone of my strong academics.

CMRIT's 'Maker's Space', an engineer's playground equipped with all the toolkits and machines, allows engineers to experiment their ideas with the guidance of experienced professors. Their 'Incubation Center' allows budding entrepreneurs to voice out their ideas and avail critical inputs. Along with academic excellence, CMRIT motivates students to explore their talents in cultural college fests, thus shaping their students into complete individuals. Having been shaped by the collegial and creative environment at CMRIT, I found myself able to communicate, innovate, and collaborate in ways that enabled me to build a successful professional career. In my current role as Business Technology Analyst in Deloitte, I work with several latest technologies including Cloud Computing, Salesforce development and interact with international clients, and I draw every day on the dispositions I developed during my time at CMRIT. It was a wonderful time in my life, and I take pride in calling myself a "CMRitian".

Aishwarya C (EC -2013-17)

Business Technology Analyst, Deloitte

CMR group of institutions have carved a niche for themselves in the field of education in Bangalore. CMR Institute of Technology, in particular, has garnered reputation as one of the finest engineering colleges in Karnataka. Its infrastructure, excellent faculty and state-of-the-art facilities inspired me to admit my son into this institution. We were pleased with the faculty-parent interactions, timely update on students' academic progress and ample opportunities offered for professional growth through workshops, industrial visits and training.



K Gopal Reddy

Ex-Internal Audit Officer
BEML Limited

As a parent I felt that CMRIT has provided a great exposure to my daughter by motivating her to take part in Hackathon, GHCI etc. As per her performance in academics I feel that CMRIT is providing a good quality education to its students. The pre placement training for students is a good initiative taken by college, and I hope it will build confidence in students to face interview.

As a parent I feel that extracurricular activities must be a part of education which will help students to showcase their talents and CMRIT is doing its best by organizing college fest, workshop etc. The idea of students to take up any online of their interest and get certified is a good initiative and I feel that it is helping students to learn something apart from the syllabus and is helping them to think out of the box. College is motivating students to develop their technical skills by helping them to take up projects.



**Mr. Muralidharan,
Executive,
SLR Metalics Ltd**



I began my journey into the world of engineering as a student of Electrical and Electronics Engineering at CMRIT in the year 2010. During the course of my under graduation, I gained valuable insights which paved the way for my career. The practical sessions in the laboratories and the industrial visits gave me a deeper understanding of the subject. The lecturers were extremely supportive and guided me well all along my journey. I carried out my eighth semester project at CMRIT and it was indeed instrumental in setting a strong foundation for my growth in the field of Electrical Engineering. After B.E at CMRIT in 2014, I pursued Post-Graduate Diploma in Transmission and Distribution at National Power Training Institute (NPTI) in Bengaluru. This year, I completed MTech in Renewable Energy Engineering and Management from TERI School of Advanced Studies at New Delhi. The role of CMRIT in shaping my career is momentous and I take immense pride in acknowledging that I will always be a CMRITian at heart.

**Sahana L(2010-14)
Associate Consultant,
Government Advisory - Performance Improvement
service line of Ernst & Young,
Gurugram.**

Gallery



