

CMRIT CONNECT



CMR INSTITUTE OF TECHNOLOGY

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Send your Feedback and suggestion on CMRIT Connect at

newsletter@cmrit.ac.in

From Editor's Desk

“In learning you will teach, and in teaching you will learn.”— Phil Collins

In this fast changing world where many things are at constant change, CMRIT has also been consistent in adapting to such change through innovation, experiment, teaching and learning. Churning creativity from the mess of science is what CMRIT strives for. Each student and faculty is recognized, applauded and fostered on their fine blend of responsibilities and growth. In this issue, we have highlighted the events that have been through during the last three months- both in and out of the college.

We express our special thanks to all those who have been of immense help with their contributions in breathing life into these pages. The editorial board is looking forward to making this newsletter a vehicle for students and faculty to express their innermost thoughts, ideas, and innovations. We hope this newsletter goes on to become the “lingua franca” of our college.

Happy Reading!



MESSAGE FROM THE PRINCIPAL

Dear Reader,

Learning is fun. And that is how CMRIT is guiding its students to learn and excel. Our students are involved in multiple hands-on projects, self-learning through MOOC, interaction with industry experts, and participation in various competitions.

Innovation has become a focal point for learning and creativity. CMRIT has established a new IPR Cell in collaboration with KSCST (Karnataka State Council for Science and Technology). Institution Innovation Council, I&E cell and fourteen Centres of Excellence are conducting several activities related to innovation and research. Over forty design patents are filed by our students and faculty in the last quarter.

CMRIT has also taken up projects in collaboration with Enable India to help physically challenged people. Our team successfully completed implementation of various technology projects at our adopted village 'Marasandra'. Our students are also getting trained on FOSS (Free and Open Source Software) to help them execute projects for the benefit of the society.

CMRIT also conducted a unique event 'Readathon' to inculcate reading habits on varied topics among youngsters. 'Technovation' was organized at CMRIT to give a platform to students from various engineering colleges to showcase their technological innovation. A workshop on 'Financial Literacy' also empowered our final year students as they venture into the real world. Students from various PU colleges were also invited to learn through hands-on at Maker-space facility and basic-science laboratories.

Apart from technical events, our students also won awards in sports, cultural and social events. CMRIT organized state level sports event 'Spardha 2019' and intra-college cultural event 'Aura 2019'. Multiple sessions on 'Emotional well-being' and 'Yoga' were conducted which are helping our students and staff to keep themselves fit and stress-free.

We continue to make our students industry-ready through TYL (Tie Your LACES) program. The success of the program is being reflected with higher number of students clearing aptitude and technical rounds during campus placements. We have also initiated 'core' tests in every semester to strengthen technical fundamentals of our students as expected by industry.

I hope you will enjoy reading this edition of CMRIT Connect!

Dr. Sanjay Jain
Principal

MESSAGE FROM THE VICE-PRINCIPAL



Dear Reader,

It is my great pleasure to extend heartfelt greetings to the readers of the current issue of CMRIT'Connect'. The news letter takes you through the various activities and achievements done by our students and faculty. Although last three months being very hectic in academics, our students participated in various competitions, hackathons and other activities and won many prizes and appreciations. I take this opportunity to congratulate each one of them. Hope to see many more in the next semester.

Dr. B. Narasimha Murthy
Vice Principal



HOD'S COLUMN

Dear Reader,

Indeed it creates immense pleasure in writing this message which spreads positive vibrant among all of us. CMR Institute of Technology conducts various activities for the benefit of students, faculty, and society. This newsletter is the epitome of the success stories of these events. These kinds of proud moments encourage the student's community to move to higher levels in Academia, Sports and other activities. We, the faculty of ISE strive to impart our best in terms of knowledge dissemination and bring out our students with a holistic personality. Our initiatives definitely mold the students such that they face the external world with prompt technical, interpersonal and problem-solving skills. I thank the faculty who are involved in this newsletter making for their real efforts. I appreciate all who did a great job of winning competitions and brought accolades to CMRIT. I wish all our students and faculty a stupendous success in upcoming activities!!!!

Dr. Farida Begam
HOD-ISE

COEs AND I&E CELL



CoE INTELLIGENT ROBOTICS SYSTEM

- Prof. Velraj Kumar P of EEE Department published research paper titled “**Low Power and Improved Speed Montgomery Multiplier using Universal Building Blocks**” in International Journal of Electronics and Telecommunications (Scopus indexed).

- Organized Workshop “**Robotic Process Automation**” by Rohan Mukhopadhyaya, Manager, Business Development Focus Academy on 18th -19th and 24th -25th Oct 2019.



- Organized industrial visit to **DiFACTO Robotics and Automation Pvt Ltd**, Bangalore on 4th Oct 2019.
- Prof. Velraj Kumar P served as a **Keynote speaker** for the Workshop on FIREBIRD-V and ATMEGA 2560 Robot.

CoE FINANCIAL MARKETS

- One day workshop was organized on “**Investment Planning**” by Mr. Tilak Raj Rai, Associate Manager, BSE, Regional Office Bangalore on 30th Sep 2019.



- One day workshop was organized on “

Financial Literacy” by Mr. Sudhakar Gokhale, Deputy Manager (Rtd), SBI and NCFE Trainer, Mr. C.S.Harisha, Regional Manager, CDSL, & Mr.Ramesha, Additional Director of Income Tax Bengaluru on 13th Sep 2019

- One day workshop was organized on “**Investment Planning**” by Mr. Harisha, Regional Manager,



CDSL, Bangalore on 03rd Oct 2019



- Guest Lecture was organized on “**Financial Planning**” by Mr. Raju V from National Stock Exchange (NSE) on 04th Oct 2019.
- Organized a 2-day workshop on Financial Markets, sponsored by CDSL, Mumbai, for the final year students of MBA on 4th and 5th Oct 2019. The resource persons were Mr. Parvez Shaik, Head - Training & Development, Karvy Hyderabad.

CoE INTELLIGENT HUMAN COMPUTER INTERACTION

- **Prof. Abdul Rasheed** was invited as a speaker to talk about the data science and machine learning and also as a chair for the paper presentation session for seminar “**Data Science and Machine Learning**”.

CoE MACHINE INTELLIGENCE AND BIGDATA

- Two day workshop was organized on “**Big Data, Hadoop and Spark**” by Mr. Sumit Mittal , CEO, Trendy Tech Tvaksa Technologies on 17th & 18th Sep 2019.



CoE MATERIAL SCIENCE

- **Project & consultancy discussion** on Multi-topic & multi group interaction with **Dr.E.S.Dwarakadasa** on 19th Sep 2019.



- **Prof. A Suvitha** of BS-Physics department published research paper titled “**Spectral investigations, NLO, NBO, HOMO-LUMO, MEP, ADME parameters of 2-methylbenzoquinone using quantum computations and CADD technique**” in AIP Proceedings

CoE EMBEDDED SYSTEMS

- Training Program was organized on “**Break it to know it**” on 25th Oct 2019, to understand how device looks from inside and how its working in practical way.
- Two day workshop was organized on “**Hands on training with FIREBIRDV and ATMEGA 2560 robot**” by **Prof. Venkata Ranjan**, Senior IEEE member, PES university, Benagloru, and **Prof.Velraj Kumar P**, Senior IEEE Member, CMRIT on 21st & 22nd Oct 2019.



CoE INTEGRATED CIRCUITS

- **Prof. Amit Jain, Shravani B (1CR16EC160), Ajay C N (1CR15EC008), Bharath L (1CR15EC041), D Anila (1CR15EC050)** has published research paper titled “**A Wide Band, Low Power Grounded Active Inductor with High-Q Factor for RF Applications**” in International Conference on Communication, Computing and Electronics Systems.

CoE SIGNAL PROCESSING

- **Prof. Binish Fatimah** has published research paper titled “**An efficient removal of power-line interference and baseline wander from ECG signals by employing Fourier decomposition technique**” in Biomedical Signal Processing and Control.

INNOVATION AND ENTREPRENEURSHIP (I&E) CELL

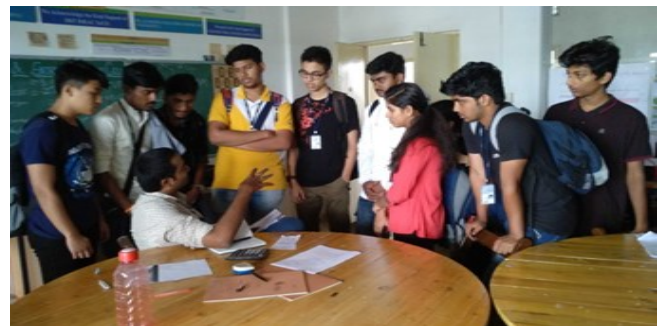
- Prof. Srinivas Reddy Mungara, Prof. Karthik N M, Prof. B Narasimha Murthy, and Prof. Phani Kumar Pullela published a patent on "A Composition, A Process Of Preparing The Composition, A Process Of Treating Wastewater And A Device".
- Nishal Bharadwaj N (ICR17EC120), Tanish T Sridhar (ICR17EC201) participated in SIH hardware event for the project titled "Mobile Sewage Treatment Plant" and won a chance to showcase their talent in South Korea. Only ten teams across India are selected to participate in this prestigious competition via MHRD.
- An expert lecture "Importance of Design Thinking for students" was organized by Dr. Phani Kumar Pullela on 6th Sep 2019.



- Training Program "Utilisation of electronics for sensing harmful diseases" was organized by Mr. Rohin Y, Co-founder & CTO, Light Speed labs, Bangalore on 03rd Sep 2019



- CMRIT I&E cell organized "Java Training" on 10th Oct 2019 to students of EEE, Mech & Civil students to help to excel in placements
- Training Programmes "How to plan and executing of design patent" was organized by Dr. Phani kumar pullela, Professor, CMRIT on 14th Oct 2019.
- Training Programmes "Dismantling house" was organized by Dr. Phani kumar pullela, Professor, CMRIT on 21st Oct 2019.
- Training Programmes "Paying Guest integrated prerana program - Empathizing" was organized by Prof. Srinivas Reddy, CMRIT on 21st Oct 2019.



- Mohsin Ali Khan alumni of CMRIT received second tranche towards elevate 100 and a grant amount of 11 lakh for his startup company CO3 structural systems.
- Training program was organized on Project Management by Pancha trantra on 19th Nov 2019.



- Training program was organized on **Java and C++** on 30th Nov 2019.
- **Dr Rohin Kumar**, serial entrepreneur mentoring Samridhi students for tips on going



from idea to prototype, a full day session which involved hands on sessions at maker space.

consultant, PIC, KSCST

- ◆ Dr. Sharana Gowda, Controller of Patent Design and trademark, Indian Patent office, Chennai.
- ◆ Dr. Sarasija Padmanabhan, Patent agent, IP Prior Art Serch, Bengaluru, Advisory member of PIC, KSCST
- ◆ Mr. Susheen Srivathsa, Advocate, High Court of Karnataka, bengaluru.
- ◆ Brinda Varma, Patent Agent and IP Attorney, IP consultant, IISc, Bengaluru.
- ◆ Mr. M G Kodandaram, IRS (Retd), NACEN, Bengaluru.
- ◆ Mr. Veeresh Moorthy, KSCST

THE KSCST- IPR CELL

IPR Cell of CMRIT, Bengaluru conducted a two-day Faculty Development Programme (FDP) on “Significance of Intellectual Property Rights (IPR) and Innovations with special focus on Prior Art Search for Engineering” on 24th and 25th October 2019. The chief guest for the inaugural was Dr. Ramakrishna T Professor of Law, Ministry of HRD Chair on IPR, Head, Centre for IP Research and Advocacy (CIPRA), National Law School of India University, Bengaluru, The other dignitaries present during the inaugural were, Hon’ble Justice A Chandrashekara, Justice Member, Karnataka State Administrative Tribunal, Bengalur, who presided over the programme, Dr. Sanjay Jain , Principal, CMRIT, Dr. B Narasimhamoorthy, Vice –Principal, CMRIT, Dr. D M Shivanna, Convener of the FDP. And Mech HOD. The two-day FDP was attended by external as well as internal faculty members. Several eminent personalities delivered sessions as Resource Persons during the FDP. The resource persons were:

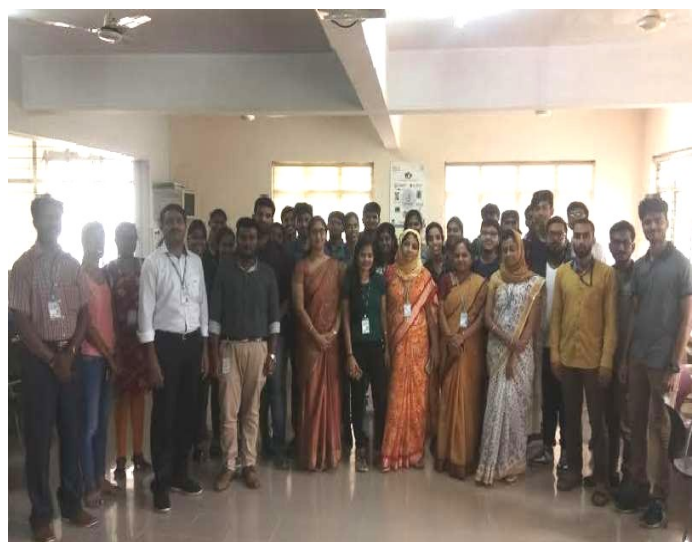
- ◆ Vivek Anand Sagar, IP attorney and



WORKSHOPS



- **Department of Civil Engineering** conducted One Day Workshop On “**Total Station survey training**” on 3rd Sep 2019
- **Department of ECE** organized Hands on workshop “**IOT with Arduino using NODEMCU ESP 8266 Version 3**” by Dr. Eisha Akanskha , Mrs. Richa Tengshe on 30th Sep 2019.
- **Department of EEE** organized 2 days workshop “**Control System Design For Industrial Machine**” By Kotresh M, Director, Indian Tech keys, Bengaluru on 13th & 14th Sep 2019
- **Department of ISE** organized 2 days workshop on “**Internet of Things using Raspberry Pi and Thingworx**” By Mr.Deepak, Mr.Bharadhan, Mrs. Anitha – IoT Application Developer on 23rd & 24th Sep 2019
- **Department of ECE** conducted One Day Workshop On “**Project proposal discussion**” on 29th Nov 2019



DEPARTMENT TECHNICAL ACTIVITIES



SEPTEMBER-19

- **Department of EEE** organized expert talk on “**A Emergencies Technologies In The Filed Of Electrical And Electronics**” by Uday Bhargav K, Gened Group, Bangalore on 03rd Sep 2019



- **Department of Mechanical** organized a guest lecture on “**Material Science**” by Prof.R. K. Ray, Distinguished Visiting faculty” by AICTE on 11th Sep 2019

- **Department of TCE** organized a guest lecture on “**Embedded Systems**” by Arun Mathiyas,Trainer, Sandeepani School of Embedded System Design on 03rd Sep 2019.



- **Department of Mechanical** organized a guest lecture on “**Mechanical behavior of metal**” and “**Ductile to brittle transition**” by Prof.R. K. Ray, Distinguished Visiting faculty” by AICTE on 12th Sep 2019.
- **Department of Mechanical** organized a Seminar on “**Automation and Robotics**” by Mr.Mohan Shamanna, Chief Executive Officer, Mr. Dhananjaya S N., Chief Operating Officer, AAPL AQMENZ Automation Pvt. Ltd. Bengaluru on 14th Sep 2019.

- **Department of MBA** organized a expert talk on “**SPSS**” By Siriyak CR ,Statistician, South Asia Pvt Ltd. on 09th Sep 2019

- **Department of ECE** organized expert talk on “**Applications of IOT and Project Demo**” by Mohammad Yousuf and Zafar Iqbal , Free Lancer on 14th Sep 2019.



- **Department of BS - Physics** organized an expert talk on “**Honing skills for interview**” by Vaisakh, Software developer, Mscritps on 14th Sep 2019



- **Department of Mechanical** organized a guest lecture on “**Industry Institute interaction**” by Prasad J Shetty . CAE, Volvo Ltd, Bangalore on 21st Sep 2019.



- **Department of BS - Physics** organized a guest lecture on “**Nature inspired nanotechnologies**” by Dr. S. T. Aruna, Principal Research Scientist, NAL, Bangalore on 21th Sep 2019.



- **Department of BS- Mathematics** organized a guest lecture on “**Applications of Differential Equations in Image Processing**” by Prof. Veerappa Gowda, Dean of TIFR on 21st Sep 2019.



- **Department of ISE** organized an expert talk on “**Use cases in IOT**” by Mr Navratan Katariya, Director-IOT COE Cell, Nasscom on 26th Sep 2019
- **Department of MCA** organized a guest lecture on “**Career Guidance Interview Skill to clear Technical Interview**” by Shivamangala K Rasure, IBM Bangalore on 30th Sep 2019



OCTOBER-19

- **Department of MBA** organized Guest Lecture **“Investment Awareness”** Karthick, Financial Planner, ABM Amro Bank and ING Investment Management on 1st Oct 2019.
- **Department of ECE** organized Guest Lecture **“Design Thinking”** by Mani L , StartupWorx, SolWorx on 04th Oct 2019.



- **Department of EEE** organized Guest Lecture **“PCB Designing”** by M Kotresh, Director , Indian Tech Keys, on 04th Oct 2019.



- **Department of Mechanical Engineering** organized Expert Lecture **“Advanced**



manufacturing Technology Through Metal Forming” by Dr. C. S. Krishna Prasad Rao, BTET on 05th Oct 2019.

- **Department of CSE** organized expert talk on **“A How to be an industry ready?”** by Mr.Snehil Jayaswal V, database Administrator, Intel, Bangalore on 05th Oct 2019



- **Department of BS-Chemistry** organized Guest Lecture **“Electroless nickel alloy coatings for aerospace and engineering application”** by Dr. J. N. Balaraju, Senior Principal Scientist & Deputy Head Surface Engineering Division CSIR -National Aerospace Laboratories on 12th Oct 2019.
- **Department of ECE** organized Guest Lecture **“Entrepreneurship”** by Stany Jude, Entrepreneur on 21st Oct 2019.



NOVEMBER-19

- **Department of BS-Chemistry** organized a training program on **“Emergency Evacuation Drill Exercise”** on 2nd Nov 2019.
- **Department of MBA** organized a guest lecture on **“Challenges in Market”** by Arthi Pranab K Pani , Talendate, on 7th Nov 2019.



- **Department of Mechanical** organized a guest lecture on **“Industrial Automation & Robotics”** by Parasuraman Business Development Engineer on 08th Nov 2019.



- **Department of MBA** organized a guest lecture on **“Motivation and leadership”** by Arthi Harish, Akshay Patra, Bangalore on 11th Nov 2019.



- **Department of ECE** organized a training program on **“Setting up INTEL testing lab”** by Dr.R.Elumalai on 13th Nov 2019.
- **Department of BS-Chemistry** organized a training program on **“Fire Safety Management”**

on 14th Nov 2019.



- **Department of BS-Chemistry** organized a guest lecture on **“Beyond Silica: Mesoporous Polymers a New Class of Advanced Structured Materials for Catalytic/Crude oil Spill Recovery Applications”** by Dr. Sanjeev Maradur, Poornaprajna Institute of Scientific Research on 21st Nov 2019.



- **Department of MBA** organized a guest lecture on **“Careers in investment banking”** by Mr. Madan Reddy, Planet Finance on 21st Nov 2019.
- **Department of MBA** organized a 2 day training program on **“Careers Excel training for MBA final Project”** by Prof M.S.Kokila, Prof Namita Konnur, Assistant Professor, CMRIT from 21st to 22nd Nov 2019.



- **Department of MBA** organized a expert lecture on **“Digital Marketing”** by Mr. Praveen , Skylight Institute on 22nd Nov 2019.
- **Department of MCA** organized a guest lecture on **“RASA Framework & IBM WATSON”** by Vishnu Nahak, Software Engineer, EasyStepIN on 23rd Nov 2019.

INSTITUTE LEVEL CELLS



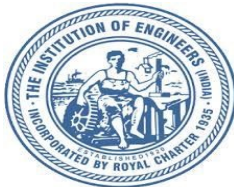
FOSS (FREE AND OPEN SOURCE SOFTWARE) CELL

- FOSS Cell of CMRIT conducted “Linux Installation Session” by Mr.SaiMadhu, Committee Member, FSMK on 26th Sep 2019.
- FOSS Cell of CMRIT organized expert lecture “Introduction to Free Software” by Mr.Naveen Mudunuru, Scretary ,FSMK on 25th Oct 2019.



PBC (PROFESSIONAL BODY CONNECT) CELL

- Professional Body membership Count of faculties



IEEE- 40	IEI-23
ISTE-91	ISCA-64

- CSI student chapter CMRIT organized “C-Quest” on 30th Sep 2019.



- IEEE student branch CMRIT organized 2 day workshop “ Image Processing algorithms for project implementation - Matlab and open source perspective” by Dr. Navin and Dr Suma M N on 20th & 21st Sep 2019.



- Professional body ISTE activity was organized on “Higher studies at abroad after BE” by Dr. Raveesha K H on 3rd Sep 2019



- **Department of BS- Mathematics** organized an Professional body ADMA activity on “**Quiz – Discrete Mathematical Structures**” on 31st Oct 2019, Prof. Joseph Varghese, Christ University, life member of ADMA was the chief guest.



- **IE(I)** organized Project exhibition competition “**ZESTRIC 2.0**” on 6th Nov 2019.



- Dept of BS-Mathematics organised Professional Body activity- “**Math modeling and Seminar Competition**” on 14th Nov 2019. **Prof.Murali.R**, Dr.AIT, ISTE member was the chief guest.



IQAC (INTERNAL QUALITY ASSURANCE CELL)

- IQAC team organized “**CO-PO attainment computation**” session for all the faculty on 3rd Sep 2019.
- IQAC team organized Workshop on “**Stress Management**” by Sujatha Patil, Corporate Trainer on 10th Oct 2019.



- IQAC team organized “**All Staff Meet**” on 19th Oct 2019. This session focuses on Centers-of-Excellence Presentations on Mega Applications, Sharing of best practices by faculty followed by Principal’s address.



EE&C CELL

- The **EE&C cell** organized an interactive expert session “**Admissions to foreign universities**” by Mr. Martin king , Mr.Francis J Kalliath, Director of “Pathways , consultant Global Reach.on 16th Sep 2019



- Innovation Club** organized “**Debate on Contemporary Global Issues**” on 21st Sep 2019



- The **EE&C cell** organized Expert Lecture “**Opportunities through GATE**” by Mr. Nanda Kumar .M , Mr. Vimallesh Kumar V..on 25th Oct 2019.



- The EE&C cell organized an interactive expert session on “**Overview of International Competitive Entrance Exams**” by Mr. Ajeeth Francis,Director, Plus Prep Mr. Suhas, Cofounder ,Plus Prep Mr. Philip Thomas, TIME Institute Mr. Maheshwar, TIME Institute Mr.

Ajay Chandran B. Deputy Manager, IDP Education on 7th Nov 2019



- CMR Institute of Technology was determined to serve the rural community in **Chokkanahalli** this year after the grand success in the adoption of Marasandra village in 2018-19. The main focus of the village visit was to interact with villagers, identify problems faced by them and to come up with technical solutions that will aid the village.



MAKERSPACE

- Students of Advitya P.U. College, Hoskote** visited Makerspace, Students got hands on training on Laser Cutter and 3D printing technology on 21st Oct 2019



WELL BEING CLUB

- Yoga sessions was started for the well being of staff, who have multiple task to handle to keep them healthy. It started with relaxing posture to set up the atmosphere and then with some basic warm-ups followed by various asanas of yoga. This Yoga sessions are scheduled Monday and Wednesday of every week



- Wellness Club of CMRIT organized a talk on “Emotional Wellness and Effective Communication strategies” by Dr.Arjun , Founder ,Transform habits LLC. On 21st Sep 2019.

EQUAL OPPORTUNITY CELL – ENABLE INDIA

- CMRIT has organized “Enable India awareness session” by Mr.Mosses, Mr.George



Sabastian ,Mr. Narendra, Enable India , Koramangala on 30th Sep 2019, To create awareness about specially abled people and create solution using technology.

- Organized a brainstorming session on “Enable India Brainstorming Session” by Mr. Sebastian and Mrs. Shantala, Enable India on 21st Oct 2019 under Equal Opportunity-Enable India Cell.



- Second NGO visit to Samarthanam trust was organized on Nov 8th,2019" under "Equal Opportunity cell -Enable India" Cell .



- Organized a visit to Enable India with 58 students and 8 faculties across departments (ECE,EEE,MECH,CIVIL) on Oct 31st,2019 under "Equal Opportunity cell -Enable India" Cell



AE (ACADEMIC ENHANCEMENT) CELL

To inculcate practical element in student's knowledge, mini projects were planned. Total of 1276 mini projects got registered from all departments. The mini projects for the current semester were displayed on 21st, 22nd Oct & 7th Nov 2019. Exceptional mini projects were identified and rewarded. Following is the list of exceptional projects identified:

1 st Prize					
S.No	Title of the project	Dept.	S.No	Title of the project	Dept.
1	Personal Expenditure An-droid App	CSE	8	Automated Traffic Control System	ME
2	Automation Of It Asset-Mega Project		9	Makeshift Radar	ECE
3	Home Automation Uisng Rasberry Pi	TCE	10	Myocardial Infraction Us-ing MATLAB	
4	Animation Of Array OPERA-TION TEACHING TOOL	ISE	11	Smart Speed Breakers	
5	Predicting Sentiment Of A Brand		12	Object Detecting Robot (Automated Insecticide/ Pesticide)	BS
6	Smart Home Device (Door Unlock) Using Mobile Com-mands	EEE	13	Hybrid Rocket Engine	
7	Gesture Controlled Robotic Arm		14	Charging Shoe	
			15	Magic square (Mathe-matical Modeling)	

2 nd Prize		
S.No	Title of the project	Department
1	Results Analysis	CSE
2	Leave Management System	
3	Face Recognition - ML	
4	Speech Recognition Using Python	TCE
5	Linear Algebra For Traffic Flow	ISE
6	Book Management System	
7	Traffic Control System Using Iot	EEE
8	Iot Based Healthcare System	
9	Ease Mate	ME
10	LPG Leakage Detector	ECE
11	Mutual Information And Various Entropies Calculator For A Uniform Channel.	
12	Determination Of Flyash Aggregate Properties For Utilisation In Pavement Quality Concrete	Civil
13	Analysis Of Caffeine By HPLC Method	BS
14	Synthesis Of Artificial Silk	
15	Biodegradable Plastic	
16	Automatic Path Finder	

3 rd Prize		
S.No	Title of the project	Department
1	Cell Phone Detector Circuit	CSE
2	Crop Disease Mangement System: The Model Has To Identify The Diseased Leaf Image With The Healthy Plant Image.	
3	Health Diagnosis Model	
4	Quiz App	ISE
5	RF Machine Controller	
6	Automatic Room Light Control Using Aurdino	EEE
7	Smartphone Controlled Robot Car Using Avr Controller	
8	Morse Code Generator	ECE
9	BRUXISM Detection Using EEG	
10	Energy Harvest From Solar Rooftop And Cost Savings In CMRIT	Civil
11	4-Stroke Ic Engine Model	BS
12	Electricity Bill Generation	
13	Smart Dust Bin	



STUDENT TECHNICAL CLUBS

SOCE , ECO CLUBS (DEPT OF CIVIL ENGINEERING)

Eureka Quiz, Tech-Forum, Word Scramble, Identifying Building Failures, Poster Making , Technical Word Search, Slogan Writing, Abstract Writing.



SOCIETY OF MECHANICAL ENGINEERS AND PROLAB CLUBS (DEPT OF ME)

The Biker Workshop, Current Trends in Automotive Industry, Technical Poster Presentation Competition, Decline In Automobile Industry



MINDSPARK , MOZIETY, ACE CLUBS (DEPT OF CSE)

THILOG Quiz, Web Phase v1.0, HTML and CSS Workshop, Hactober 2019, MIT App Inventer Workshop



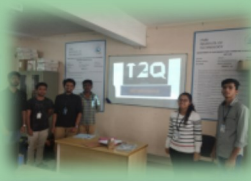
TECHNOLIX CLUB (DEPT OF TCE)

Test Your C Skill , Test Your Java Skills, Cryptography



ETA, TAQ CLUBS (DEPT OF ECE)

Tech Quiz, Circuit debugging, INSTANTRIVIA, Introductory session on AI, ML and Data science, Magic of logic competition, Embedded vision of FPGA's, HDL on Design of electronic systems, Puzzles and Riddles, Technocrat, Technology trends in electronics.



SCIENCE CLUB (DEPT OF BASIC SCIENCE)

Pictomath, Quiz(physics), Environmental Science, Global issues, Mathematical Modeling competition, Seminar competition, Quiz on DMS , Dumb Charades on Physics concepts, Solutions to energy crisis.



FEEE CLUB (DEPT OF EEE)

Electrical Atlas, Group Discussion - Impact Of Technology On Jobs, Logo Design, Tricky Circuits, Tech Extempore, Technical Talk on Augmented and Virtual reality, Mock Interview, Workshop on Introduction to PSpice



CODING NINJAS, CODECHEF, GOOGLE DSC CLUBS (DEPT OF ISE)

Cryptics, Advanced Web Development with React, WebDev workshop 2.0, Codemania, The TRIVIA MASTER Brainstorming questionnaire activity

FINANCE & INVESTMENT, MARKETING & HUMAN RESOURCE CLUBS (DEPT OF MBA)

Quiz, Adventure, Stress Management, Stock Game, Fin Extempore, Role Play, Octomar, Business Building Model, Gamification



PROTOCOL CLUB (DEPT OF MCA)

Amazon Web Services (AWS), Technical Aptitude Contest, Python Hunter, Great Idea Challenge, Peer learning, Brain Teaser.



HACK-IT-ON 3.0

The “Hack-It-On 3.0” event was successfully conducted by Hacker Earth & Code Chef club of CSE & ISE together from 27th September 2019 to 29th September 2019 at CMR Institute of Technology. Total 46 teams of 180 students were participated from various colleges/institutions such as- BMSCE, PES University, DSU, RIT, RNSIT, NHCE and CMRIT etc. The theme of the Hackathon was “Sustainability”



NON-TECHNICAL CLUBS

Arts Club - Best out of Waste, School Beautification



MUSES Club - Design With Sehran, What's Your Story, Anti-Drug Poster Making Competition



Music Club - Music Club Auditions



IRIS Club – More About Photography, Don't Blink Just Capture



Theatre Club – IMPROV, Theatre Club audition



Dance Club - Dance Auditions



Literature Club – Essay Writing Contest, Group Discussion, Jam Session, Open Mic, Prose And Poetry Contest, Mechanical Poets Quiz



READATHON

The **READATHON** was an 18 hour event, the first of its kind in Bangalore and the second **READATHON** in India. Participants were from CMRIT as well as from other colleges. They were given a library of books from which they could choose from and spend the night reading them. Activities like a movie screening, open mics, quizzes etc were held to make the participants interact with each other.



CONNECTING TO THE INDUSTRY



INDUSTRY VISIT

- **Department of Civil Engineering** organized a site visit to **CMRS Mulberry Mist** (Multi-storeyed complex) in Varthur on 22nd Sep 2019
- **Department of EEE** organized Industrial Visit to “**KRS Hydroelectric Power Plant, Mysore**” on 30th Sep 2019



- **Department of Civil Engineering** organized a site visit to **Villa complex** in ACES layout on 20th Sep 2019.
- **Department of MBA** organized Industrial Visit to “**UniBic Foods Pvt Ltd, Bangalore**” on 25th Sep 2019



- **Department of CSE** organized Industrial Visit to “**STPI Bangalore**” on 12th Sep 2019.
- **Department of CSE** organized Industrial Visit to “**Ellucian, Bangalore**” on 13th Sep 2019.

- **Department of BS-Mathematics** organized Educational visit to “**National Aerospace Laboratories**” on 24th Sep 2019



- **Department of BS-Chemistry** organized Industrial visit to “**Vishveshwarya Museum, Bangalore**” on 24th Sep 2019



- **Department of BS- Physics** organized Industrial visit to “**CSIR- National Aerospace Laboratories**” on 21th Oct 2019.



- **Department of Civil Engineering** organized a industrial visit to **Sowmya Shailam Apartment** at Hoodi on 01st Oct 2019.



- **Department of Civil Engineering** organized a industrial visit to **Sri Maruthi Concrete Blocks** on 01st Oct 2019



- **Department of ECE** organized a industrial visit to **Samarthanam trust - NGO(Enable India project)** on 08th Nov 2019



- **Department of MCA** organized a industrial visit to **Microsoft, Jfrog and Redhat** on 2nd Nov 2019



CONNECTING TO THE COMMUNITY



- Social Activity Database Project titled “Anganawadi Database Project” was implemented for in CMRIT adopted village Marasandra by EE&C cell , CMRIT
- **Department of MCA** organized a spiritual talk on



“**Power of Thought**” by Sister Savitha, Brahma Kumaris World Spiritual University, Mount Abu, Rajasthan, India on 11th Sep 2019



- Students attended the live session on **constitution day** via youtube and listened to our Honorable Prime Minister **Shri.Narendra Modi ji**.



TECHNOVATION

(Under CoE-Intelligent Robotics System, CoE-Intelligent Human Computer Interaction)

CMR Institute of Technology, Bangalore in its endeavor to ensure holistic development of its students and make them excel in all dogmas of life has been organizing various events and activities with a blend of achieving individual talents and innovation among the students. In respect to this a National level Inter Collegiate event named ‘Technovation-a forum for inventors’ took place on 27th September 2019 at CMRIT,Bangalore.

Its main aim was to enhance the very soul of engineering and to encourage students to come up with their ideas. . This event provided a perfect platform for the future scientists to showcase their imagination and innovative thinking. Students from all over India participated in this event with overall number of 300 Students.

Mr. Mallikarjuna and Team from MVJ College of Engineering, Bangalore had won the First prize for demonstrating Auto Concrete System using Artificial Intelligent techniques. Ms.Kushi Gangopadhyay and Team from CMR Institute of Technology, Bangalore had won First Prize in the poster based competition for demonstrating Smart Dustbin using Artificial Intelligent techniques and Mr. Shiva Kumar and team from MVJ College of Engineering, Bangalore had

won First prize and Mr. Leleesh and Team had won the second prize in robot soccer game.

Technovation-2019 was concluded with a valedictory ceremony the winners were awarded with the prize money of Rs.5000 for each event by Dr. Sanjay Jain, Principal CMRIT where he quoted "All creative people want to do the unexpected" which summarizes the soul of this event .



ROTARACT CLUB OF CMRIT- THE INSTALLATION OF THE BOARD OF DIRECTORS

The theme for the Rota year 2019-20, "SAMARPAN", was launched by the president. Also, the members who were new to the Rotaract family also received the badges from the Guests of Honor. The Chief Guest for the event was Rtn. K.C.Jagannath Reddy and the Installing Officer



was Rtn. Appaiah. The Guests of Honor included Rtr.Surya Kiran and Dr. B.Narsimsha Murthy.

- **Rotaract Club CMRIT** has conducted a Program of Sapling plantation on 18/10/19 .

CMRIT@PU_OUTREACH-PROGRAMME

- Faculty team from CMRIT visited Varadadri PU College and Govt.PU (Girls and Boyes) college, Bagepalli on 16/10/2019 and provide the guidance on problem solving skills, competitive exam, presentation techniques with mock test to all PU students .
- Faculty team from CMRIT visited Excellent PU College, Mahesh PU College and SDC PU Colleges in Kolar on 21/11/2019 and provided the guidance on problem solving skills, competitive exam, presentation techniques with mock test to all PU students.

NSS @CMRIT

- Awareness program on PCOD, Thyroid, Cancer and other health and hygiene related issues for women in association with Dr.Seemanthini Desai ,CEO, Dr Desai's Micro Lab, Chief Medical Advisor, vivant.me and co-founder of SAPfresh on 14th Sep 2019.
- Golden Jubilee of NSS and Mahatma Gandhi 150th Birth Anniversary Celebration - NSS unit organized painting and beautification of 6 government schools on 20th and 21st Sep 2019, Theme Painting, Quiz and Debate
- Blood donation camp in association with Bangalore Medical Service Trust (BMST) on 21st Oct 2019.



ಕನ್ನಡ ರಾಜ್ಯೋತ್ಸವ—೨೦೧೯



೨೦೧೯ನೇ ಸಾಲಿನ ಕನ್ನಡ ರಾಜ್ಯೋತ್ಸವವನ್ನು ನಮ್ಮ ಕಾಲೇಜಿನಲ್ಲಿ ನವೆಂಬರ್ ೨ ರಂದು “ಧ್ವನಿ ಸಭಾಂಗಣ”ದಲ್ಲಿ “ಸಂಸ್ಕೃತಿ ಕನ್ನಡ ಸಂಘದ” ವತಿಯಿಂದ ಗಣಕಯಂತ್ರ ವಿಜ್ಞಾನ ವಿಭಾಗದ ಉಪನ್ಯಾಸಕರಾದ ಮನೋಜ್ ಚೆಲ್ಲ, ಯಾಂತ್ರಿಕ ವಿಭಾಗದ ಉಪನ್ಯಾಸಕರಾದ ಚೇತನ್ ಕುಮಾರ್ ಮತ್ತು ಮಹಾರುದ್ರ ರವರ ನೇತೃತ್ವದಲ್ಲಿ ಆಚರಿಸಿದೆವು. ತಳಿರು-ತೋರಣ, ರಂಗೋಲಿಗಳ ಮೂಲಕ ಮುಖ್ಯ ಅತಿಥಿಗಳಾದ ಮಿಮಿಕ್ರಿ ಕಲಾವಿದರಾದ ಗೋಪಿ, ಹಿಪ್-ಹಾಪ್ ಗಾಯಕರಾದ ಯುವರಾಜ, ಹಾಗೂ ಜನಪದ ಕಲಾವಿದರಾದ ಶ್ರೀಯುತ ಕಡಬಗೆರೆ ಮುನಿರಾಜು ರವರು ಮುಖ್ಯ ಅತಿಥಿಗಳನ್ನು ಸ್ವಾಗತಿಸಿದವು..

ಸುಮಾರು ೧೨ ಗಂಟೆಗೆ ಕಾರ್ಯಕ್ರಮ ಶುರುವಾಯಿತು. ಪ್ರಥಮವಾಗಿ ದೀಪ ಹಚ್ಚುವುದರೊಂದಿಗೆ ಕಾರ್ಯಕ್ರಮವನ್ನು ಪ್ರಾರಂಭಿಸಿ ನಂತರ ಪ್ರಾರ್ಥನಾ ಗೀತೆ ಗೀತೆಯೊಂದಿಗೆ ಮುಂದುವರಿಸಿದರು. ನಮ್ಮ ಕಾಲೇಜಿನ ಉಪ ಪ್ರಾಂಶುಪಾಲರಾದ ಬಿ ನರಸಿಂಹಮೂರ್ತಿಯವರು ಹಾಗೂ ಕನ್ನಡ ಉಪನ್ಯಾಸಕರಾದ ಶ್ರೀಮುರಳಿ ಯವರು ಸ್ವಾಗತ ಭಾಷಣ ಕೋರಿದರು. ನಂತರ ಕಾರ್ಯಕ್ರಮದ ಮುಖ್ಯ ಅತಿಥಿಗಳ ಪರಿಚಯವನ್ನು ದಯಾನಂದ್, ವಿಜೇತ್ ಹಾಗೂ ಚೇತನ್ ರವರು ಮಾಡಿದರು. ನಮ್ಮ ಪ್ರಾಂಶುಪಾಲರಾದ ಸಂಜಯ್ ಜೈನ್ ಮತ್ತು ಉಪ ಪ್ರಾಂಶುಪಾಲರಿಂದ ಅತಿಥಿಗಳ ಸನ್ಮಾನ್ಯ ಕಾರ್ಯ ನಡೆಯಿತು. ನಂತರ ಮಿಮಿಕ್ರಿ ಕಲಾವಿದರಾದ ಗೋಪಿ ಅವರು ತಮ್ಮ ಹಾಸ್ಯ ಮಾತುಗಳೊಂದಿಗೆ ಎಲ್ಲರನ್ನೂ ರಂಜಿಸಿದರು, ಯುವರಾಜ ಹಾಡು ಹಾಗೂ ನೃತ್ಯದೊಂದಿಗೆ ಎಲ್ಲರನ್ನೂ ರಂಜಿಸಿದರು.

ಜನಪದ ಕಲಾವಿದರಾದ ಶ್ರೀಯುತ ಕಡಬಗೆರೆ ಮತ್ತು ರಾಜ ರವರು ಜಾನಪದ ಶೈಲಿಯ ಗೀತೆಗಳಿಂದ ಪ್ರೇಕ್ಷಕರಲ್ಲಿ ಆನಂದ ಹಾಗೂ ಉತ್ಸಾಹವನ್ನು ತುಂಬಿಸಿದರು. ಅನಂತರ ನಮ್ಮ ಕಾಲೇಜಿನ ವಿದ್ಯಾರ್ಥಿಗಳ ನೃತ್ಯ-ನಾಟಕ ಹಾಗೂ ಗೀತೆಗಳೊಂದಿಗೆ ನೆರೆದಿದ್ದವರಿಗೆ ಇನ್ನಷ್ಟು ಮನರಂಜನೆ ನೀಡಿದರು. ಕೊನೆಯದಾಗಿ ಸಂಘದ ಅಧ್ಯಕ್ಷರಾದ ಕುಶಾಲರವರ ವಂದನಾರ್ಪಣೆಯೊಂದಿಗೆ ಕಾರ್ಯಕ್ರಮ ಅಂತ್ಯಗೊಂಡಿತು.



TRAINING AND PLACEMENTS



TYL-HACKATHON

- The CMR Institute of Technology, Bengaluru organized TYL Hackathon on 20th Oct 2019 in C++ which is open to all students. Total 08 teams have registered and 6 teams has participated for the hackathon .

- The CMR Institute of Technology, Bengaluru organized TYL Hackathon on 26th Oct 2019 in **JAVA** which is open to all students of **CMRIT**. Total 26 teams have registered and 24 teams have participated for the Hackathon.

Winner for TYL Hackathon on C++

Name of the	Name of the students
Code Blooded	Akansha Agarwal -1CR18CS010, Aman Kapoor - 1CR18CS014, Ankit Yadav - 1CR18CS023, Alajangi Niharika – CR18CS013

Name of the Team	Name of the students	Prize
A Cool Name	Dhanish Thacker -1CR18IS046, Vikram Thapa - 1CR18EC230, Nikhil Anand 1CR18EC132, Saurabh Suman ICR18EC187	1 st Place
Asterix	Mohammed Rifas S - 1CR17CS075, Mukul Nair - 1CR17CS077, Richard Delwin Myloth -1CR17CS109, Burla Sai Teja - 1CR17CS029	2 nd Place
Return to Sleep	Sourish Mukherjee - 1CR18CS161, Arjun Khanduri 1CR18CS029, Rudransh Awasathi 1CR18IS121, Ankit Yadav 1CR18CS023	3 rd Place
Gallant Coders	Ragam Vaibhav 1CR18IS112, Jigyasa 1CR18IS069, Jessica Srivastava 1CR18IS068, Purnajeet Das. 1CR18IS111, Prateek Dey 1CR18CS124	4 th Place
Out of bound	Shubham Goyal -1CR17CS145, Vaibhav Padmanabha - 1CR17CS170	5 th Place



- The CMR Institute of Technology, Bengaluru organized TYL Hackathon on 04th Nov 2019 in **Python** which is open to all students of **CMRIT**. Total 27 teams have registered and 27 teams have participated for the Hackathon

Winners for TYL Hackathon on Python

Name of the Team	Name of the students	Prize
Py'OHolics	Deepak, 1cr16cs044, Rajesh Gosh 1cr17cs410, Rishabh Jha, 1cr16cs132, Subhashish Gupta, 1cr15cs157	1 st Place
CodeHub	Pranav S 1cr17ec141, Elton Joshua 1cr17me028, Dinesh Krishnan 1cr17me027, Dipro Pramanick 1cr17ec058	2 nd Place
Chaos	Pratik Bharuka, Meera Krishna P 1CR18CS116, Gautham A Nagendran 1CR18IS052, Nitin Surraj	3 rd Place
Asterix	Richard Delwin Myloth, Mukul Nair, Mohammed Rifas, Sayan Pal, Burla Sai Teja	4 th Place
Blue	Ashwin.M.S 1CR17CS024, Gokul 1CR17IS029, Sristi 1CR17EE070	5 th Place

- The CMR Institute of Technology, Bengaluru organized TYL Hackathon on 11th Nov 2019 in **Big Data Analytics / Cloud Services / Full Stack Development / ML using python** which is open to all students of **CMRIT**. Total 15 teams have registered and 13 teams have participated for the Hackathon.

Winners for TYL Hackathon on Big Data Analytics/Full Stack Development/Cloud Services/ML using Python

Name of the Team	Name of the students	Stream
Asterix	Richard Delwin Myloth, Mukul Nair, Mohammed Rifas, Sayan Pal, Burla Sai Teja	Full Stack Development
LEET CODERS(1337 C0D3RS)	Nandan T - 19MCALE47, Pavan Kalyan P H, Azmath Ulla S	Cloud Services
Pied Piper	Aayush Roy 1cr17cs003, Hitesh Bhalotia 1cr17cs050, Kairyalya Shukla 1cr17cs056, Krishna Kesav	ML Using Python



CAREER PLANNING **WORKSHOPS** AND 1X1 CAREER **DISCUSSIONS**

Career Planning Workshops for BE, MBA, MCA students were conducted during the current and previous semesters by Professional Career Advisor. In these workshops, Career Advisor conducted 2 hours sessions titled “Changing Trends in Jobs & Careers: Are you ready?” for each batch covering topics on the future of Transportation, Medicine, Agriculture, Banking and Data Science, Difference between a Job and Career, Skills/knowledge/Talent/Strength, Natural Ability Assessment, Role Mapping, Function Mapping, Future skills as well as career plan was drawn by each participant. These sessions were covered for more than 1000+ students over the year.

Several 1x1 coaching discussions were availed by students during this time. Many of the discussions were on higher study options in India and abroad, discussion on the right career for the students as well as how to go about entrepreneurship ideas that they have.

There were 481 students who have provided feedback post the session. Top key take aways have been responded as understanding of “Strengths/skills/ talents”, Future Careers and Career Planning Need.



Many students got benefited through these Career Planning Workshops and discussions in understanding their own skills and capabilities and in choosing careers based on their aspirations.



Companies visited during Sep- 19 to Nov -19



TCS DIGITAL



Let's Solve



GlobalLogic

ellucian



Mindtree
Welcome to possible



Where Value and Innovation Co-exist



CHAINalytics



and many more

SPARDHA - 2019

CMR Institute of Technology organised their much awaited annual sports fest, SPARDHA 2019 from 26th-28th September. The 3 day event displayed traits such as tenacity and perseverance from the participants showcasing athletic ability throughout the events.

The sports fest commenced with the inaugural ceremony where the chief guest, ex Indian Kabaddi captain, Mr Arumugam M S welcomed the gathering emphasising the importance of sports followed by a lovely rendition of Vatapi followed by the lighting of the lamp. The dignitaries, including the Principal, Vice Principal and Physical Education Director addressed the august gathering. The dignitaries distributed token of gratitude to the chief guest. Finally the inauguration concluded with the chief guest declaring the sports meet open.

Students from colleges all over the city competed in events including football, volleyball, throw ball to name a few, with over 40 colleges and a participation of a 1000 students

SPARDHA 2019 concluded with the valedictory ceremony along with the prize distribution including trophies such as best mid- fielder(football) , best dodger (Kho-Kho) and various other MVP awards leaving the spectators content, excited and wanting more making SARDHA 2019 a grand success.

SPARDHA-2019 KHO-KHO WINNERS

SL. No	NAME	USN
1	Ealyaraja S	1CR18EC059
2	Mahesh B Malakannavar	1CR17CS069
3	Chandan S	1CR19EC171
4	Sachin K R	1CR17EC164
5	Vishwanatha S	1CR16CS180
6	Sunil Y	1CR17EC216
7	H M Niranjanagoud	1CR17CV017
8	Rahul A M	1CR18EE068
9	Harsha A	1CR16EC046
10	Zameer	1CR16ME094
11	Balaji	1CR17CV005

SPARDHA-2019 KABADDI WINNERS

SL. NO	NAME	USN
1	Rahul Chauhan	1CR18EC160
2	Prathish	1CR17EC099
3	Ravichandra Dv	1CR18CV056
4	Kirthi Amruht Swaroop	1CR16CV028
5	Nitish Hegde	1CR18CS114
6	Rahul Am	1CR18EE068
7	Sri Venkat S	1CR19MCA11
8	Ranjit K S	1CR18EE072
9	Nikhil H C	1CR17CV415
10	Bharat Manjunath Naik	1CR18EE016
11	Sunil Y	1CR17EC216
12	Harsha A	1CR16EC046
13	Jayanth B	1CR18CV417

SPARDHA-2019 BADMINTON (W) RUNNERS

SL. NO	NAME	USN
1	Zishani Mishra	1CR16EC200
2	Harshita H	1CR16EC049
3	Deeksha P	1CR16EE020
4	Kalpana	FIRST YEAR
5	Keerthi C	FIRST YEAR



SPARDHA-2019 CHESS (M)

SL. NO	NAME	USN
1	Hemanth Kumar N	FIRST YEAR
2	Bhardwaj Yerukalapudi	1CR18EC239



SPARDHA-2019 TABLE-TENNIS (W) RUNNERS

SL. NO	NAME	USN
1	Richa Sharma	1CR16TE025
2	Vartika Malhotra	1CR17EC214
3	Chelsa Daptry	1CR16CS043
4	Tanmayi V Kadkol	--
5	Vaishnavi Patil	---



AURA- 2019

Aura'19 was the first inter-department fest of CMR Institute of Technology. It is a cultural event that aims to provide a platform to unveil the creativity and innovation that the youth has to offer. The individual events were organized by dance, music, arts, literary, photography, design and theatre clubs. Every event won would award points to the respective department. The department scoring the maximum points wins Aura'19.



Group Dance

Winners: ECE Department
Runners: CSE Department



Group Singing -

Winners: EEE Department
Runners: CSE Department



Switchfoot

Winners: Basics Science Department
Runners: Basics Science Department



Solo Instrumental

Winners: EEE Department
Runners: MCA Department

Creative writing -

Winners: ECE department
Runners: ECE department

Debate -

Winners: CSE department
Runners: ISE department

Mr. and Ms. Aura –

Winners: ME department
Runners: EEE department

Shutter up –

Winners (using DSLR):
Basic Science department

Runners (using DSLR):
MBA department

Winners (using Mobile):
CSE department

Runners (using Mobile):
Basic Science department



Face painting –

Winners: ME department
Runners: ECE department

Video editing –

Winners: CSE department
Runners: CSE department



Considering the points secured by the departments from all the events, the Dept. of CSE has emerged as Winners by securing 100 points. Basic Science gave a very close contest to them securing 95 points.

STUDENT ACHIEVEMENTS



PRIZES, AWARDS AND PUBLICATIONS

- **Rohan Raj (ICR18IS120)** of ISE department has been identified as Microsoft Student Partner by Microsoft.
- **Ayush Dubey (ICR18IS027)** of ISE department won 2nd Prize in Debate organized by innovation club.
- **Ayush Dubey (ICR18IS027)** of ISE department won 1st Prize in FEEE Club activity.
- **Muskan Gupta (ICR18IS093), Manyam Tejashwini (ICR18IS088), Khushi Gangopadhyay (ICR18IS077)** of ISE Department won 1st Prize in Technovation organized at CMRIT.
- **Vaibhav Padmanabha (ICR17CS170)** of CSE department won first prize in **Poetry Competition**.
- **Souptik Mukherjee (ICR17EE068)** of EEE department won 2nd prize in **Thomso'19** awarded by IIT Roorkee.

- **Manisha N Phadke (ICR16EE042)** of EEE department received award on **4th Guru Kalam Memorial Lecture & IIF Award Ceremony** organized by Abdul Kalam International Foundation.



- **Sourish Mukherjee (ICR18CS161)** of CSE department won 2nd Prize in **Code Mania (CodeChef)**.
- **Pramita Soans (ICR17EE048)** of EEE department won **Gold Medal** at **50th All India Student Design Competition – 2019** awarded by NATIONAL DESIGN AND RESEARCH FORUM The Institution of Engineers (India).



- **V.K Rayudu** of 1st year won **3rd prize under Swachh Bharat** Category for the event “Engineering student from the city designs pollution detection and weather monitoring Technology” awarded by

Indian International science festival 2019 Kolkata .

SPORTS ACHIEVEMENT

- **Mayur Shivakumar** (1CR16CS087) of CSE department won first prize in **VTU Inter-zonal Power lifting competition** (120+ category) at N.M.A.M.I.T, Nitte Mangalore.



- **Sanjana M** of Mechanical Department participated in **VTU Single Zone Yoga Competition** from 13th-14th September at **HIT Nidasosi(Karnataka)** and Secured 1st Place.



- **Priyanka L Reddy** of 1st year participated in **National Kick Boxing Championship 2019** held at **Dr. B R Ambedkar Indoor Sports Stadium Karimnagar Telangana** from 17th-20th September 2019 and secured 1st place.



- **CMRIT Women Hockey Team** Participated in **National Level Sports Fest** conducted by **St.John College** from 25th-29th September 2019 and secured 1st Place (Winner).
- **Nagendra M** of Civil Department Participated in



- **VTU Taekwando Competition** held at **GAT College Bangalore** from 17th-18th Oct and Secured **Bronze Medal** in **63kg Category**
- **Karthik Raja** of **ECE Department** participated in



- **22nd VTU Annual Athletic Meet** held at **GNDC Bidar** from 22nd-25th Oct 2019 and Secured **Bronze Medal** in **800m**.



FACULTY ACHIEVEMENTS



RESEARCH PUBLICATIONS

- **Prof. Manoj Challa** of CSE Department published research paper titled “**Optimized Machine Learning Models for Diagnosis and Prediction of Hypothyroidism and Hyperthyroidism**” in 3rd International Conference On Computational Vision and Bio Inspired Computing (ICCVBIC 2019) – Springer Indexed.
- **Prof. Kiran Babu** of CSE Department published research paper titled “**Relay Selection Trust Management (RSTM) model for Delay Tolerant Networks**” in International Journal of Advanced Trends in Computer Science and Engineering (Scopus Indexed)
- **Prof. Manoj Challa** of CSE Department published research paper titled “**Optimized Machine Learning Approach for the Prediction of Diabetes-Mellitus**” in 3rd International Conference On Computational Vision and Bio Inspired Computing (ICCVBIC 2019) – Springer Indexed.
- **Prof. Jagrati Gupta** of ECE Department published research paper titled “**Artificial Neural Network Hardware Implementation: Recent Trends and Applications**” in Springer -ICCVBIC 2019
- **Prof. Kodandapani Depa** of EEE Department published research paper titled “**Android Based Cardiac Ejection and Retinal Function of Human Body in Home Monitoring System**” in International Journal of Engineering and advanced Technology
- **Prof. M Mohan** of EEE Department published research paper titled “**Design and Transient Studies on Multi-Terminal VSC-HVDC Systems Interconnecting Offshore Wind Farms**” in ECTI Transactions on Electrical Engineering, Electronics, and Communications
- **Prof. Joshua Samuel Raj** of ISE Department published research paper titled “**Road Accident Data Analytics Using Map –Reduce Concept**” in International Journal of Innovative Technology and Exploring Engineering.
- **Prof. Girisha. A** of BS-Mathematics Department published research paper titled “**Laceability Property in Flower Snark Graphs**” in Advances and Applications in Discrete Mathematics

- **Prof. Meenakshi Krishnan** of **BS-Mathematics** Department published research paper titled **“Change in Semi-graph energy due to Edge deletion and its relation with distance energy”** in International Journal of Recent Technology and Engineering.
- **Prof. Smaranika Panda** of **Civil** Department published research paper titled **“Health risk assessment of street vendors at a traffic intersection of Bangalore”** in International Conference on Innovative Trends in Civil Engineering for Sustainable Development (ITCSD - 2019).
- **Prof. Nipa Chanda** of **Civil** Department published research paper titled **“Performance analysis of an uncontrolled intersection in Silchar city, Assam”** in International Conference on Innovative Trends in Civil Engineering for Sustainable Development (ITCSD - 2019).
- **Prof. Suganya S** of **ECE** Department published research paper titled **“KRAFT: Kalman Filter based Energy-aware LTE and Wi-Fi Joint Throughput Optimization”** in International Journal of Recent Technology and Engineering (IJRTE).
- **Prof. Sridevi S S and Prof. Venkateswaran Krishnasamy** of **ECE** Department published research paper titled **“2D and 3D Based Network on Chip for a Stream of Data using Label Switching Technique With Regards”** in International Journal of Engineering and Advanced Technology (IJEAT).
- **Prof. Chetan Gowda** of **ECE** Department published research paper titled **“A New Method For Secret Image Transmission Via Mosaic Fragments Using Ecc Key”** in IEEE WIECON 2019.
- **Prof. Suganya S, Prof. Venkateswaran Krishnasamy, Lavanya .M (ICR15EC090), Nidhi Poddar (ICR15EC118), S. Gitanjali (ICR15EC160)** of **ECE** Department published research paper titled **“Robo Car for Military Application”** in International Journal of Innovative Technology and Exploring Engineering (IJITEE).
- **Prof. Sutapa Sarkar** of **ECE** Department published research paper titled **“Asymptotic Analysis of Generalized Energy-Based Spectrum Sensing in Cognitive Radios”** in IEEE WIECON 2019.
- **Prof. Prasad B S and Prof. Akhilaa Reddy** of **ISE** Department published research paper titled **“Supervised Machine Learning Algorithms for Early Stage Detection of Alzheimer's Disease”** in International Journal of Recent Technology and Engineering.
- **Prof. Akhilaa Reddy** of **ISE** Department published research paper titled **“Customer Aware Recommender System (CUARS) For Push Notifications in an E-Commerce”** in Global Conference for Advancement in Technology (IEEE)
- **Prof. Jagadishwari Palani** of **CSE** Department published research paper titled **“CNJC: A cumulative similarity measure for link prediction in social networks”** in 9th International Conference on Advances in Computing & Communications (IEEE CONFERENCE Scopus indexed).

- **Prof. Chetan Gowda, Jyoti Manikrao Roogi and Suganya S** of ECE Department published research paper titled “**Detection Of Melanoma Cancer Cell By Designing A Spr Based Biosensor**” in International Conference on Physics and Photonics Processes in Nano Sciences (IOP Publishing).
- **Prof. Venkateswaran Krishnasamy** of ECE Department published research paper titled “**Emerging Vistas of Remote Sensing Tools in Pollination Studies**” in Sociobiology An international journal on social insects.
- **Prof. Manjunath V Gudur** of ECE Department published research paper titled “**Auto segmentation of retinal blood vessel image using 2-D gaussian lter and its first and second order derivative**” in International Journal of Recent Technology and Engineering.
- **Prof. Sachin Ramesh Aralikatti** of ECE Department published research paper titled “**Quantum Computing: A Brief introduction to the emerging technology and its engineering paradigm**” in IJITEE- ‘International Journal of Innovative Technology and Exploring Engineering.
- **Prof. Chitra K** of EEE Department published research paper titled “**Analytical Comparison and Implementation of Dierent Inverter Topologies for Three-Phase OnLine Uninterruptible Power Supply**” in International Journal of Ambient Energy.
- **Prof. Chitra K** of EEE Department published research paper titled “**Design And Implementation Of Simple Boost Pwm Controlled T-Source Inverter For Solar Pv Application**” in International Journal Of Scientific & Technology Research.
- **Prof. Agalya V** of EEE Department published research paper titled “**Optimization in Rescent Aspects of Power Converter**” in International Journal Of Scientific & Technology Research.
- **Prof. Joshua Samuel Raj** of ISE Department published research paper titled “**Application of Discrete Transforms with Selective Coefficients for Blind Image Watermarking**” in Wiley Publications.
- **Prof. Shahina Parveen M** of ISE Department published research paper titled “**NFDDC: Novel Neuro-Fuzzy Logic based Methodology for Distributed Data Classification**” in International Journal of Recent Technology and Engineering.
- **Prof. Agalya V** of EEE Department published a book chapter titled “**Solid State Drives**” in Charulatha Publications.
- **Prof. Bineet Kumar Jha** of ISE Department published a book chapter titled “**Introduction & Programming SQLite**” in Amazon KDP.
- **Prof. Arunkumar T** of Mechanical Department published research paper titled “**Emission study on the outcome of DMC on neem bio-diesel-ignited diesel engine**” in Energy Sources, Part A: Recovery, Utilization, and Environmental Effects.

- **Prof. Rajendra Padidhapu** of **BS-Mathematics** Department published research paper titled “**Mathematical modeling to incorporate the Uncertainty costs of power supply**” in IJITEE.
- **Prof. Rajendra Padidhapu** of **BS-Mathematics** Department published research paper titled “**Identification of Non- Linear systems through convolutional neural networks**” in IJRTE.

PATENT **APPLIED**

- **Prof . Shahina Parveen M** of ISE Department submitted Patent on ” **System And Method To Secure Monetary Transactions Using Blockchain Technology**” to PPM patent services Pvt. Ltd, Hyderabad.
- **Prof . Joshua Samuel Raj** of ISE Department submitted Patent on ” **IoT Based Smart Water Contamination Detection**”
- **Prof . Rijo Jackson Tom** of CSE Department submitted Patent on “**Industrial Design - Biscuit design**” to Indian Patent Office for Design, Kolkata.
- **Prof . Rijo Jackson Tom** of CSE Department submitted Patent on “**Industrial Design - A knife for coconut grating**” to Indian Patent Office for Design, Kolkata.
- **Prof . Ranjitha R and Prof. Agalya V** of EEE Department submitted Patent on ” **Two Wheel Drone To Identify People During Natural Calamities And Building Collapse**” to IP India.
- **Prof . Agalya V and Prof. Abdul Wahid Nasir** of EEE Department submitted Patent on ” **Compatible Solar Agricultural & Horticultural Sprayer**” to IP India.
- **Prof . Chitra K** of EEE Department submitted Patent on ” **Movable Ceiling Fan Mechanism**” to IP India.
- **Prof . Shahina Parveen M** and **Prof. M. Farida Begam** of ISE Department submitted Patent on ” **Neuro-Fuzzy Logic Based System For Distributed Data Classification**” to Patent office, Govt of India.
- **Prof . Joshua Samuel Raj** and **Prof. S Saravanan** of ISE Department published a Patent on ” **Sensor Based Irrigation System Facilitated By Internet Of Things**” at Patent office, Govt of India.
- **Prof . Joshua Samuel Raj** and **Prof. S Saravanan** of ISE Department published a Patent on ” **Internet Of Things (IoT) Based Smart Grid Systems For Smart Cities**” at Patent office, Govt of India.
- **Prof . Vakula Rani J** of MCA Department submitted a Patent on ” **All – in – One Echo Friendly Tooth cleaning Kit**” at IP INDIA.

FACULTY **CONSULTANCY**

- **Prof. Ruchir AJ** of Civil Department received grant amount of Rs. 2500/- on Cube testing for Bhagirath constructions.

- **Prof. Ruchir AJ** of Civil Department received grant amount of Rs. 500/- on Cube testing Prime living project
- **Prof. Shivakumara M J** and **Prof.Asha M Nair** of Civil Department received grant amount of Rs. 41800/- on Soil Testing by P G Shetty Constructions
- **Prof. Santosh Kathari** of MBA Dept received Grant amount of Rs. 17,000 /- from CDSL, Mumbai

FACULTY AWARDS AND RECOGNITIONS

- **Prof. Jhansi Rani P, Prof. Poonam Vijay Tiajre, Prof. Shanthi M B, Prof. Kartheek GCR, Prof. Vivia Mary.John, Prof.,Rijo Jackson Tom, Prof. Sunil Kumar P V** of CSE Department served as **internal evaluators** in HackItOn 3.0 organized at CMRIT.
- **Prof. Rijo Jackson Tom** of CSE department served as **Journal Reviewer** for IEEE Internet of Things Journal
- **Prof. Nasir Abdul Quadir** of ECE department served as **Journal Reviewer** for 2019 IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2019)
- **Prof. Chetan Gowda** of ECE department served as **Resource Person** in Practical hands on training on image processing for project Implementation
- **Prof. Venkateswaran Krishnasamy** and **Prof. Aswini N** of ECE department served as **Resource Person** in Practical hands on training on image processing for project implementation. MATLAB and open source perspective
- **Prof. Vanaja Shivakumar** of ECE department served as **Resource Person** in Hands on training on Arduino for beginners.
- **Prof. Farida Begam Mohamed Hussain** and **Prof. Shankar Ramamoorthy** of ISE Department served as Resource Persons in Jury, Software Testing Conference STC 2019, CGI, Bangalore on 21st Sep 2019.
- **Prof. Jhansi Rani P** of CSE department is nominated as **NBA Margadarshak** for peer institutions.
- **Prof. Mahesh Kumar Jha** of TCE department has been evaluated to Senior Member status by **IEEE**.
- **Prof. Swathi Y** of ISE department received a grant of Rs.3 lakhs from VTU TEQIP on “**Outcome based education and NBA accreditation**” under the Category Projects sponsored by the university/college.
- **Prof. Naveen Kumar GN** of ECE department served as an Advisory Board Member of **IFERP**
- **Prof.Binish Fatimah** of ECE department served as a Journal Reviewer for **IGI Global**
- **Prof. Savitha Hiremath** of ISE department served as a Evaluator for **IEEE Fifteenth International Conference on Information Processing (ICInPro) – 2019**.

- **Prof. Paras Nath Singh** of CSE department served as a resource person in AICTE sponsored STTP program on “**Big Image Data Processing Using Machine Learning Techniques**” at Manipal Institute of Technology.



Ph.D AWARDEES



- **Prof. Rajendra Prasad Reddy** of Mechanical department has been awarded with Doctor of Philosophy(Ph.D) in Mechanical Engineering (Bio-Diesel) from VTU.



- **Prof. Helen Josephine** of MCA department has been awarded with Doctor of Philosophy(Ph.D) in Web Mining from Bharathiar University.



- **Prof. Rijo Jackson Tom** of CSE department has been awarded with Doctor of Philosophy(Ph.D) in Internet of Things from SRM University.



- **Prof. Sunil Kumar P V** of CSE department has been awarded with Doctor of Philosophy(Ph.D) in Bioinformatics from NIT Calicut.



- **Prof. Naveen Kumar GN** of ECE department has been awarded with Doctor of Philosophy(Ph.D) in Electrical and Electronics Engineering (Power Electronics - EMI, EMS) from VTU.



- **Prof. Soundarya Nagarajan** of Civil department has been awarded with Doctor of Philosophy (Ph.D) in Concrete Technology from Dr.M.G.R Educational and Research Institute, Chennai.

FUTURE ACTIVITIES PLANNED



Activities planned for the next quarter Dec 2019-Feb 2020

S.No	Date	Activity	Department / Cell
1	5th Dec 2019	Industrial visit to Dairy classic ice cream pvt ltd	MBA
2	13th Dec 2019	Workshop on UI/UX - by Design boat	MCA
3	16 th Dec 2019	Industrial Visit to Hindustan Coca-Cola Beverages	MBA
4	30 th Dec 2019	FDP on recent research Trends in IT	ISE
5	1 st Jan 2020	Industry sponsored workshop on MATLAB	ECE
6	2 nd Jan 2020	FDP- State of art technology in Geomatics .	Civil
7	4 th Jan 2020	Talk on FLAT	BS - Mathematics
8	6 th Jan 2020	VTU TEQIP - Outcome based education and NBA accreditation	IQAC Cell
9	6 th Jan 2020	5 week Short Term Training Programs(STTP) of all Center of Excellence(COE) @ CMRIT	COE
10	22 nd Jan 2020	Certification Program by Dr. R K Ray, Retd. Professor, IIT-Kanpur, under the aegis of INAE-AICTE Distinguished Visiting Professor Scheme	Mech
11	1 st Feb 2020	Special village camp	NSS - CMRIT
12	7 th Feb 2020	Alumni talk on “ Key challenges on current trend and higher studies”	CSE
13	Feb 2020	First Aid Training by EMRT & Chemistry Department	BS - Chemistry
14	Feb 2020	Field trip	BS - Physics
15	14 th Feb 2020	Workshop on Robotics and Automation	EEE
16	14 th Feb 2020	Test Your C Skills Competition	TCE
17	26 th Feb 2020	Drafting Patent Document- Indian Provisional and Complete Specification	I&E Cell

STUDENT COUNCIL



STUDENT COUNCIL 2019 - 20



**KUSHAL M
PRESIDENT**



**SHRIKESH SURESH
SECRETARY**



**MEGHNA MENON
TREASURER**



**CHANDRAMA BHOWMIKA
SENIOR TECHNICAL
SECRETARY**



**V ABHISHEK
SENIOR CULTURAL
SECRETARY**



**SHWETHA SATISH
PUBLIC RELATIONS
SECRETARY**



**BURHANUDDIN
KHOMOSI
BOYS HOSTEL SECRETARIES**



PRATHAM T



**AISHWARYA B S
GIRLS HOSTEL SECRETARIES**



SHRAVANI



K KAVYA



NISHANTH V R



SNEHA M.MANI

CULTURAL SECRETARIES



PRAMITA SOANS



SATISH KUMAR



KRISHNA

TECHNICAL SECRETARIES



HARSHITA



CHAMAN R

SPORTS SECRETARIES



NISARGA G



ABHINAB MISRA

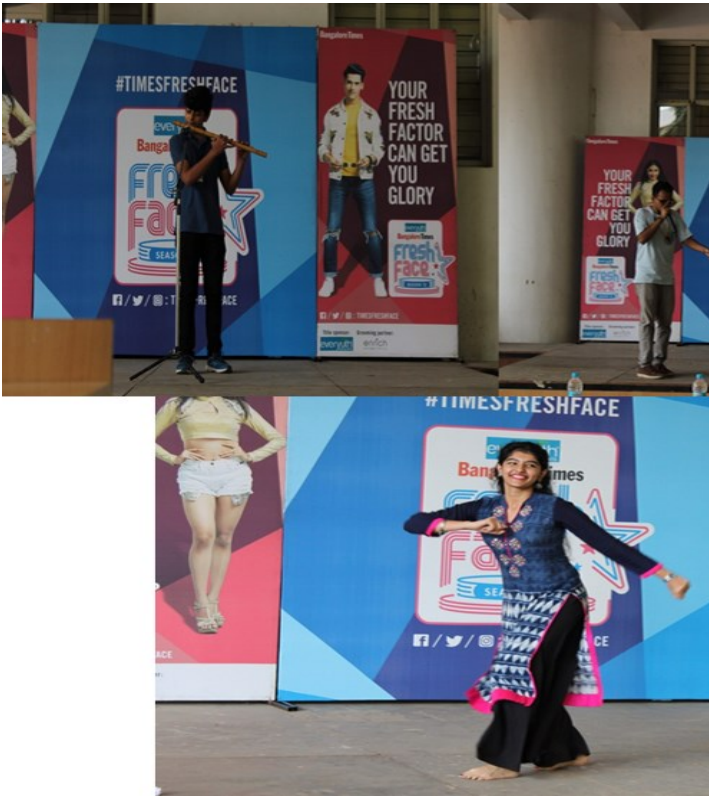
LITERARY SECRETARIES

EVENTS UNDER STUDENT COUNCIL

- Live Concert Apollo 101 - A musical afternoon was arranged by the cultural committee.



- JWALA'19 - Diwali nights was celebrated with lot of enthusiasm and there was juke box which entertained the audience. Inter Department Rangoli competition was organized



- Everyuth Bangalore Times Fresh Face Season 12



- A Talk on Opportunities in the Armed Forces

- MAGIC MAGIC

ALUMNI ASSOCIATION



Alumni Association



- Mr.Utsav Halder served as a Judge in HackItOn3.0 on 28th Sep 2019
- Ms.Sri Harshitha served as Judge in TYL Hackathon - C++ on 20th Oct 2019
- Mr.Adithya served as Judge in TYL Hackathon - Java on 26th Oct 2019.
- Mr.Dhruv Mishra served as Judge in TYL Hackathon - Python on 04th Oct 2019.
- Mr.Yaswanth and team had been to a high altitude Himalayan trek-Hampta pass trek which is 14200Ft in altitude on 15th September.



Connect to CMRIT Alumni network

<https://alumni.cmr.ac.in>

TECHNICAL/ NON-TECHNICAL ARTICLES

ARTIFICIAL INTELLIGENCE - AUTOMATED DRIVERLESS VEHICLES

Artificial intelligence (AI) and self-driving cars are often complimentary topics in technology. We cannot discuss about self-driving cars without Artificial Intelligence.

Autonomous vehicles are here, and they're here to stay. While their use and acceptance are not yet widespread, that day is coming. Most of the major automotive manufacturers are actively exploring autonomous-vehicle programs and conducting extensive on-road testing.

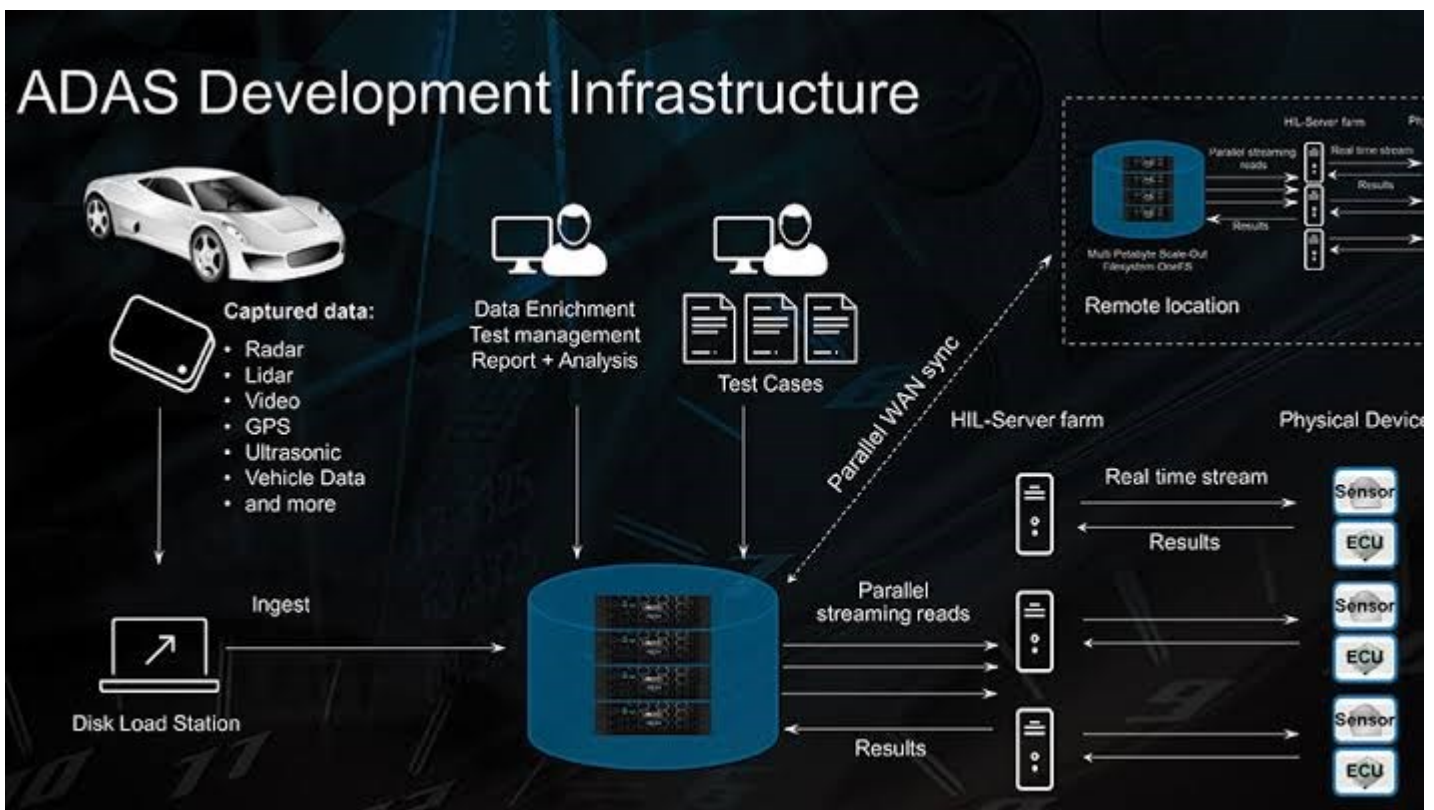
Increased safety is the primary benefit.

• **Real-time route optimization:** Autonomous

vehicles connect with other vehicles and the traffic management infrastructure to incorporate real-time information on road conditions and traffic levels into route selection.

- **Increased lane capacity:** Autonomous vehicles can operate at higher speeds and closer vehicle proximity, leading to greater lane capacity.
- **Reduced energy consumption:** Autonomous vehicles are lighter than conventional vehicles, so they consume less fuel.

Increased safety for human passengers will be another major benefit. ADAS takes the risk factor out of the hands of human operators and will contribute not only to improved traffic management but also increased safety, saving lives by reducing



accidents.

Network infrastructure: Rapid and consistent connectivity between autonomous vehicles and outside sources such as cloud infrastructure ensures signals get to and from the vehicles more quickly. The emergence of 5G wireless technology, which promises high-speed connections and data downloads, is expected to improve connectivity to these vehicles, enabling a wide range of services, from videoconferencing and real-time participation in gaming to health care capabilities such as health monitoring.

There are several protocols under which autonomous vehicles communicate with their surroundings. The inclusive term is V2X, or vehicle to everything, which includes:

- Vehicle-to-infrastructure communication, which allows for data exchange with the surrounding infrastructure to operate within the bounds of speed limits, traffic lights, and signage. It can also manage fuel economy and prevent collisions.
- Vehicle-to-vehicle communication, which permits safe operations within traffic situations, also working to prevent collisions or even near misses.

Sensor technology: Sensor systems are rapidly evolving to meet the demands of expanded autonomous-vehicle operations, including radar, lidar, and cameras. These technologies enable the vehicles to operate at five increasingly sophisticated and autonomous levels

Level 1: Vehicle performs minor steering or acceleration tasks; all other operations are under full human control.

Level 2: Vehicle automatically responds to safety situations, but the driver must remain alert and responsive.

Level 3: Vehicle performs certain “safety-critical functions” under various traffic or environmental conditions.

Level 4: Vehicle can operate without requiring human input.

Level 5: Vehicle operates with full automation in any environment (weather or traffic).

The gradual introduction of autonomous driving will come about through the tempered deployment of self-driving capabilities.

JAYANTH K (1CR17TE014)

J GAUTHAM KRISHNA KUMAR (1CR17TE013)

V SEM, TCE

ADVANTAGES OF MIG WELDING

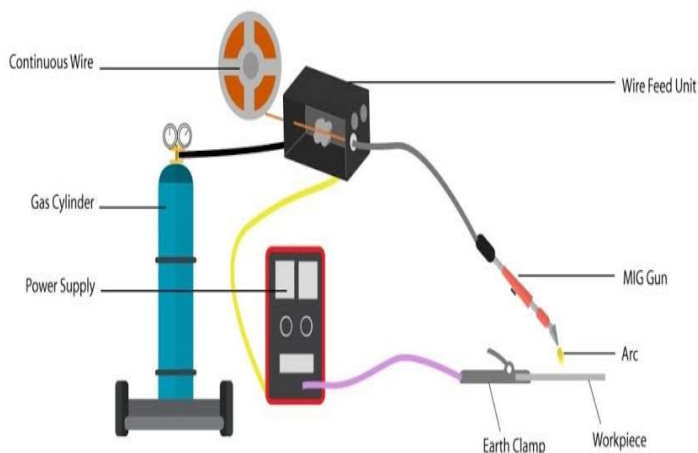
Metal Inert Gas Welding is a type of an arc welding process in which an electric arc is formed between a consumable wire electrode and the work piece metal (s), which heats the work piece metal(s), causing them to melt and then join. Along with the wire electrode, a shielding gas is fed through the welding gun, which shields the process from contaminants in the air. It is most commonly referred to as Gas Metal Arc Welding (GMAW).

Quality and Versatility

In other normal welding processes, flux is used to weld the objects, where slag is formed by the reaction of hot flux with the contaminants in the air, which

is, should be removed continually by the welder or the machine as it costs a lot of waste of the flux and the weld may also become much uneven. In MIG Welding, shielding gas mixed with CO_2 and O_2 reduces porosity, gives the appearance to weld and gives arc stability, which is important to get a uniform weld bead.

The most important aspect of MIG welding is that it is done on a variety of metal objects and alloys like on all thicknesses of steels, on aluminum, nickel, and even on stainless steel, and more. Welds produced are of very high quality and very less weld spatter is produced since flux is not used and there becomes a lesser chance for the entrapment of slag.



Speed

MIG Welding is much faster than older welding methods as this method has become so popular that the upgradations took place at a rapid pace.

Eco-Friendly

This process involves the reduction of smoke and fumes by knocking off oxide fumes by the positive ions of the shielding gas, which helps to see the pools.

Conclusion

MIG Welding offers different scopes for future research not only to overcome its limitations but also to improve the quality of the weld to the next step.

SAHAJ KEDIA
II SEM, BS

HOW TECHNOLOGY HAS SHAPED MANKIND

Over several millennia, man has been constantly shaping the world around him. But if there is one field that has shaped mankind more than any other, it is the field of engineering and specially civil engineering. Ancient Egyptians built massive Pyramids to lay their beloveds to rest. The Romans engineered a network of roads and aqueducts to sustain their cities and the mighty British connected every corner of their vast empire with the help of railways. Today, Infrastructure symbolises development and power. So why has the field of civil engineering played such an important role ?

Having good infrastructure enables people to move from one place to another. Infrastructure is also key to boost trade which makes a country or even the world prosperous. With huge progress made in the field of engineering in the past fifty years has made the world smaller than ever before. Having a good social infrastructure has now become a major priority for governments around the world. Singapore is the best example for this. The Government has built affordable housing for its citizens, invested millions in education in health care and as a result, over the last couple of decades, Singapore has emerged as a leading destination for expats and its residents are among the happiest. This is just a short excerpt of the

role civil engineers play in progress of the society. As we face problems like climate change, it is up to the current group of civil engineers to rise to the challenge. Well they be up to it? Only time will tell.

**ADRUT JANAK - 1CR17CV001
V SEM, CIVIL**

ENERGY PILE

An energy pile is a conventional heat exchanger system installed in a foundation pile. Absorber pipes filled with a heat carrier fluid are installed within conventional foundation piles forming the primary circuit of a geothermal energy system. The natural ground temperature is used as a heat source in winter and for cooling in summer. The primary circuit is then connected via a heat pump to a secondary circuit within the building. The soil-pile interaction modifies itself into a thermal-hydro-mechanical soil-pile interaction. A comprehensive analysis necessitate the quantification of thermally induced shear stress

$\left(\frac{dP_s}{dT}\right)$ and radial stress $\left(\frac{dP_r}{dT}\right)$. The thermally modified stresses are linked to changes in volume, pore water pressure, relative pile soil movement, coefficient of earth pressure and consolidation characteristics. The interaction is highly dependent on the type of soil. The particle size, saturation, minerals present, density, thermal load cycles are a few parameters which alters the soil-pile interaction.

The structural behavior of pile also changes with cyclic thermal loading. An energy pile is subjected to cycles of heating, cooling and periods of rest. Research has shown that when free head energy piles are subjected to thermal cycles there is an occurrence

of irreversible settlement. There is a decrease in axial force at pile head when a restrained head energy pile is subjected to thermal cycles.

The design of an energy pile should incorporate the determination of the null point, effect of temperature on Young's modulus, effect of stress history on thermal strains in soil, effect of temperature on diffused double layer, prediction of vertical shear in pile, partial saturation.

The heat transfer can be enhanced if the thermal conductivity and the convective heat transfer is increased by geometrical optimization, using nanofluids in absorber pipes, incorporating conducive fillers in pipe materials and in concrete but the energy pile can be expected to be under high thermal loads in such a case.

**Sherrin Joseph,
Assistant Professor,
Department of CIVIL**

CIRCULAR ECONOMY

By and large, today's manufacturing takes raw materials from the environment and turns them into new products, which are then disposed into the environment after use. It is a linear process with a beginning and an end. In this system, limited raw materials eventually run out. Waste accumulates, either incurring expenses related to disposal or else polluting—indeed. In a circular economy, however, products are designed for durability, reuse and recyclability, and materials for new products come from old products. As much as possible, everything is reused, remanufactured, recycled back into a raw material, used as a source of energy, or as a last

resort, disposed of. India has the opportunity to save money, make money and do good by adopting the principles of the circular economy. It has the opportunity to leapfrog other economies and establish a leadership position. In a world that is increasingly running out of natural resources, this thinking is an asset that must be leveraged by businesses, policymakers and citizens in an organized manner



and expanded to include other elements to make the economy truly circular.

Several building blocks of circularity are deeply ingrained in Indian habits, as exemplified by the high rates of utilization and repair of vehicles and the distributed recovery and recycling of materials post-use. Often handled informally, these activities provide the only source of livelihoods to some of the poorest populations. Restorative and regenerative by design, a circular economy aims to keep products, components, and materials at their highest utility and value at all times. A circular economy is a continuous cycle that preserves and enhances natural capital, optimizes resource yields, and minimizes system risks by managing finite stocks and renewable flows. A circular economy reduces resource dependency and resource use, including energy thereby reining in production costs, narrowing market exposure and limiting costs stemming from resource extraction and generation. It additionally leads to the introduction of economically viable methods of reducing pollution, and separating harmful from reusable waste material.

THIMMAIAH KS (ICR16ME083)

II SEM, MECHANICAL

I AM MAYUR AND I AM A POWER LIFTER

Power lifting, is a static strength sport that consists of three major compound lifts. The Squat, Bench press and the dead lift. It takes consistent hardwork and dedication to play this sport. Power lifting though me more about life, than life can ever teach me.

When I found power lifting, it changed my life. It gave me an outlet from the everyday frustrations of life and taught me how to find a goal, and then work consistently hard to achieve that set goal. It built character, going back under the bar on a daily basis to break the body down, so it can come back as an even stronger version of itself.

Lifting heavy, day in and day out is not easy, but soon it turns into an addiction of itself. Watching and feeling the weight on your back, and wanting to add more and grow is a high of its own. Is power lifting the most healthy outlet? May be not, but it sure is an addicting one.. Pushing yourself to your human max, and then getting even better at it? Yea, I'll take that over being weak, over anything else you can offer me. In summary.. Power lifting is madness.. The kinda madness that keeps bringing you back and if you let it, it changes your life. You should try it sometime.

Don't forget 'follow us
@grizzlystrongmotivation' on Instagram

Mayur Shivkumar (ICR16CS087)
(Winner in VTU Inter-zonal Power lifting
competition - 120+ category), VII Sem CSE.

TESTIMONIALS



Mr. Naveen Mudunuru,
General Secretary,
Free Software Movement Karnataka

The importance of trained professionals on Free Software technologies has grown tremendously in recent times, with the advent of AI/ML, Cloud, IOT and other next-gen technologies mostly based on Free Software Technologies from the industry perspective. It has become even more important for the Free Software Movement to educate professionals on the changing facets of technology, industry and its effects on community and society at large.

CMRIT as an institution has been time and again been playing a vital role in imparting value-based education to students. FSMK welcomes the collaboration with CMRIT FOSS club and happy to extend its full support. The most important factor of this partnership is not just to prepare the students and train them on certain technologies but also to inculcate and impart the culture of "Community Hacking". I have recently attended a hackathon conducted by the college, where the participation level of the students is very encouraging. Programming is an ART, which needs both creativity and responsibility to make humankind better.



Anthony Suresh A
Consultant, LTI

CMRIT is what has shaped what I am today. It has given me the perspective and the skill to go out in the professional world and face competition and hurdles and come out successful. I owe it to all my teachers at Electronics and Communication Department whose teaching fuels me even to this day. Thanks for giving me the opportunity to be a part of the college again through this testimonial. I am always indebted to the most important years of my life that I spent at CMRIT. From standing in queues at accounts department, losing a pen drive or two in the xerox place, finding ways to crack every lab experiment, to endless blue book pages during exams, all these memories however taxing during my college time, these are the memories I always look upto as a guy who can only enter my college again through magazine pages. To my fellow CMRITians, celebrate the college days as there is nothing like being in CMRIT campus and shaping the future in front of all of you.



Syed Nabil Ahmed,
Senior Software
Engineer, Yokogawa

CMRIT has played a pivotal role in the development of my career. It has provided educational value beyond academics, especially the soft-skills training and facilitation of workshops and events related to present day problems like Global Warming. Fostering the technological spirit the CSE department effectively provided resources like Utilization of labs for academic projects and self-learning apart from the guidance of faculty members some of whom had practical industry experience. The CSE department also provided a platform for us to participate in knowledge sharing and practical coding challenges through ACE club (Association of Computer Engineers).

I'm grateful to CMRIT for providing me an environment where I could participate in Internship during the semester, this gave me an insight into enterprise level software development thanks to which I was recruited from campus by Yokogawa.



Suresh Reddy K C
R S Surfa Coats

The CMR Institute of Technology is amongst an elite group of institutes for engineering education across India, with an A+ grade accreditation by the NAAC(National Assessment and Accreditation Council) as well as accreditation from the NBA(National Board of Accreditation for Engineering programmes). The management and leadership team of CMRIT strive to shape the future of students, imbining a global perspective and courage to use their knowledge, skills and creativity in bringing progressive changes to the society. Makerspace at CMRIT is interdisciplinary, collaborative, community-oriented space equipped with latest prototyping equipment and technologies. The purpose of the Makerspace is to enable a hands-on culture to from a wide range of content areas and experiences in real world projects.

The campus has a basketball court, volleyball court, and a playground for football and practice net for cricket. Thus, I can assure that one would surely like the infrastructure of CMRIT due to its location. Teachers teaching here are very helpful. Maximum of the teachers teaching here are highly qualified and are from renowned institutions. They are also highly experienced, and the best part about them is that they not only focus on the students who are good at studies, but they also focus on the students who are slow learners.

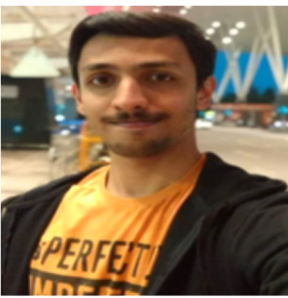


**Mr. Suneel Padavala,
Director of Engineering,
North American Automotive
Embedded organization**

I have attended 3 Hackathon events conducted by CMRIT and they were truly phenomenal events. I was overwhelmed by the student participation and interest across engineering disciplines and everyone were excited and dedicated in presenting their results. Atmosphere was great and level of enthusiasm carried out by the students throughout the event was admirable. Would like to express my heartfelt wishes to all the CMRIT students for successful career ahead. Wish everyone all the best.

Also, I would like to thank CMRIT staff for inviting me for this event and ensuring my judgment is considered in evaluating final results. Staff were also very cordial and knowledgeable and carried same level of enthusiasm as students in hosting the event.

Finally, I thank CMRIT College for conducting various events and producing valuable engineering's students for the country. Wish them all the best and request to take many more initiatives.



**Swaroop G
SAN Engineering &
Locomotive Co. Ltd**

It gives me great pleasure to say with pride that I have completed my Bachelor of Engineering from CMR Institute of Technology. The relationship between faculties and students is very cordial, which gave me an opportunity to excel in my area of interest (Design Engineering).

The four years spent here were splendid and has helped me to grow better professionally & personally. I would like to thank all the faculties and my dear friends for making me a "Better Engineer". I am carrying along with me beautiful memories of this place and will always cherish them. Thank you CMRIT for making this journey so pleasant.

VISION

MISSION

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.*

THE CMR GROUP

<i>CMR University</i>	<i>CMR Life Skills Institute</i>	<i>Ekya School, ITPL</i>
<i>CMR Institute of Technology</i>	<i>CMR National PU College</i>	<i>Ekya School, J.P Nagar</i>
<i>CMRIMS (Autonomous)</i>	<i>CMR National Public School</i>	<i>Ekya School, Kanakapura Road</i>
<i>CMR University School of Legal Studies</i>	<i>NPS International School, Singapore</i>	<i>Ekya School, BTM Layout</i>
		<i>Ekya School, Byrathi</i>

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ಬೆಳಗಾವಿಯಲ್ಲಿ ನಡೆದ 'ರಾಜ್ಯಮಟ್ಟದ ಅಂತರ ಕಾಲೇಜು ಮಹಿಳಾ ಯೋಗ ಸ್ಪರ್ಧೆ'ಯಲ್ಲಿ ಚನ್ನರ ವರ್ತ ವೆಡೆದ ಸಿ.ಎಂ.ಆರ್. ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯದ ಎಂಜಿನಿಯರಿಂಗ್ ವಿದ್ಯಾರ್ಥಿನಿ ಸಂಜನಾ ಎಂ. ಅವರಿಗೆ ಮಹಾವಿದ್ಯಾಲಯದ ಪ್ರಾಂಶುಪಾಲ ಸೂಜಯ್ ಜೈನ್ ಶುಭ ಹಾರೈಸಿದರು



State-level inter-collegiate sports fest held

CMR Institute of technology organised its second state-level inter-collegiate sports fest 'SPARDHA' from September 26-28. This year more than 1,000 athletes from 45 colleges participated in different sports such as kabaddi, football, kho-kho and more. Out of the 45 participating colleges, 18 were from other district teams, while 27 were from Bengaluru.

Mon, 30 September 2019 epaper.newindiansexpress.co

ಕ್ರೀಡಾಉತ್ಸವ - ಸ್ಪರ್ಧಾ - 19



ಬೆಂಗಳೂರು ಕ್ರೀಡಾಉತ್ಸವದ ವಿವರಗಳು:

College Name	Winner	Ranibasa 99
Badminton	New Horizon College (Bengaluru)	BELT (Bengaluru)
Table Tennis	MS Ramaiah College (Bengaluru)	CMRIT (Bengaluru)
Chess	MS Ramaiah College (Bengaluru)	MS Ramaiah College (Bengaluru)
Kho-Kho	CMRIT (Bengaluru)	CMRIT (Bengaluru)
Table Tennis	MS Ramaiah College (Bengaluru)	CMRIT (Bengaluru)

ಅಧ್ಯಕ್ಷರು, ಅಧ್ಯಾಪಕರು ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಶುಭಾಶೀರ್ವಚನ ನೀಡಿದರು.

ಕ್ರೀಡಲತೆಗೆ ಓಜ್ವಲ ಭವಿಷ್ಯತ್ತು



ಕ್ರೀಡಾಉತ್ಸವದ ವಿವರಗಳು.



ಸಿ.ಎಂ.ಆರ್. ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಶುಭಾಶೀರ್ವಚನ ನೀಡಿದರು.

ಸಿಎಂಆರ್‌ಐಟಿ ಎಂಜಿನಿಯರಿಂಗ್ ವಿದ್ಯಾರ್ಥಿಯಿಂದ ಮಾತನಾಡು ನಿಯಂತ್ರಣ ಸಾಧನದ ಅನ್ವೇಷಣೆ



ಎಂಜಿನಿಯರಿಂಗ್ ವಿದ್ಯಾರ್ಥಿಯಿಂದ ಮಾತನಾಡು ನಿಯಂತ್ರಣ ಸಾಧನದ ಅನ್ವೇಷಣೆ.

ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 22 (ಅಂಧ್ರಪ್ರದೇಶ ಪ್ರತಿನಿಧಿ):

ಸಿಎಂಆರ್‌ಐಟಿ ಎಂಜಿನಿಯರಿಂಗ್ ವಿದ್ಯಾರ್ಥಿಯಿಂದ ಮಾತನಾಡು ನಿಯಂತ್ರಣ ಸಾಧನದ ಅನ್ವೇಷಣೆ.

ಅಂಧ್ರಪ್ರದೇಶ

Wed, 23 October 2019 https://epaper.andhra

ಬೆಂಗಳೂರು ಉದಯದಾಳಿ

ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 19, 2019

21ರಂದು ರಕ್ತದಾನ ಶಿಬಿರ

ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 21, 2019

ಸಿಎಂಆರ್‌ಐಟಿ ಲೆ ರಕ್ತದಾನ ಶಿಬಿರ



ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 22, 2019

Blood donation camp organised as part of CSR initiative

As a part of its CSR initiative, CMR Institute of Technology, Bangalore (CMRIT) in association with Rotary Bangalore - TTK Medical Service Trust (BMST) will organise a blood donation camp in the city. The camp is aimed at spreading awareness on the subject of blood donation and will be held at CMRIT Campus, Aecs Layout, on October 21.

Mon, 21 Oct 2019 epaper.new1

ಬೆಂಗಳೂರು, ಸಿಎಂಆರ್‌ಐಟಿ ವಿದ್ಯಾರ್ಥಿಯಿಂದ ಮಾತನಾಡು ನಿಯಂತ್ರಣ ಸಾಧನದ ಅನ್ವೇಷಣೆ

ಬೆಂಗಳೂರು, ಸಿಎಂಆರ್‌ಐಟಿ ವಿದ್ಯಾರ್ಥಿಯಿಂದ ಮಾತನಾಡು ನಿಯಂತ್ರಣ ಸಾಧನದ ಅನ್ವೇಷಣೆ.

ಅಂಧ್ರಪ್ರದೇಶ

Wed, 23 October 2019 https://epaper.andhra

ರಕ್ತದಾನಂ ಮಹಾನಂದಂ

ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 21, 2019

ಸಿಎಂಆರ್‌ಐಟಿ ಲೆ ರಕ್ತದಾನ ಶಿಬಿರ



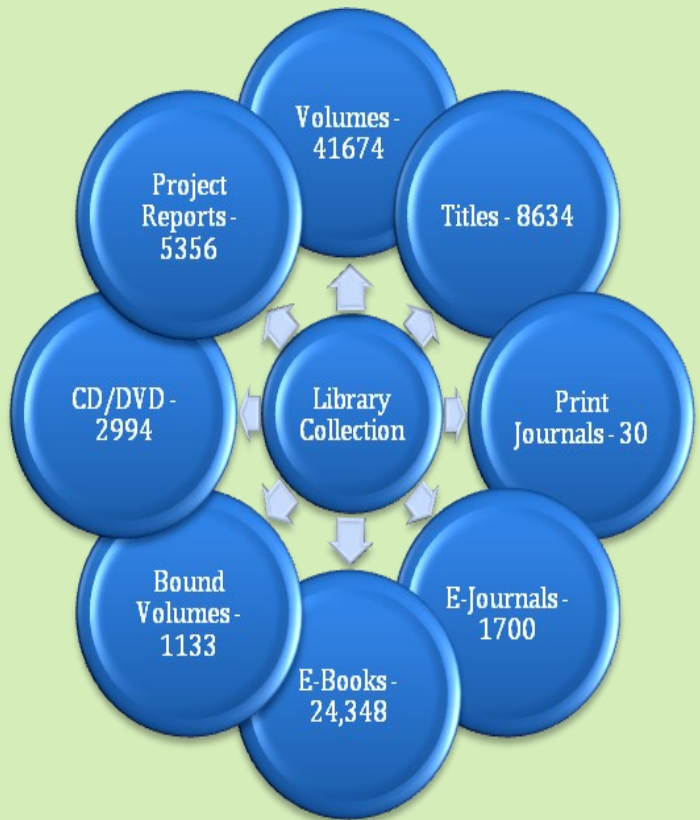
ಬೆಂಗಳೂರು, ಅಕ್ಟೋಬರ್ 22, 2019

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<https://www.instagram.com/cmrit.bangalore/>



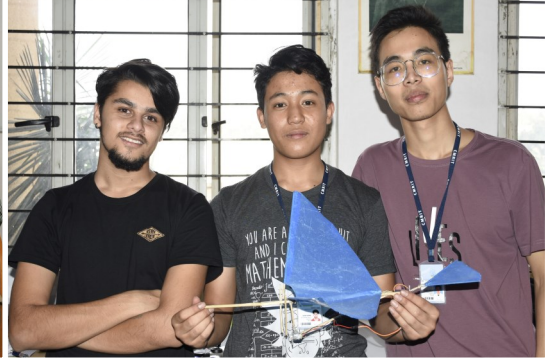
https://www.youtube.com/channel/UCpi96paEf16WS-Xf0_xyL9Q



<https://www.facebook.com/CMRIInstituteOfTechnologyBangalore>



<https://www.linkedin.com/company/cmri-institute-of-technology-bengaluru/>



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