

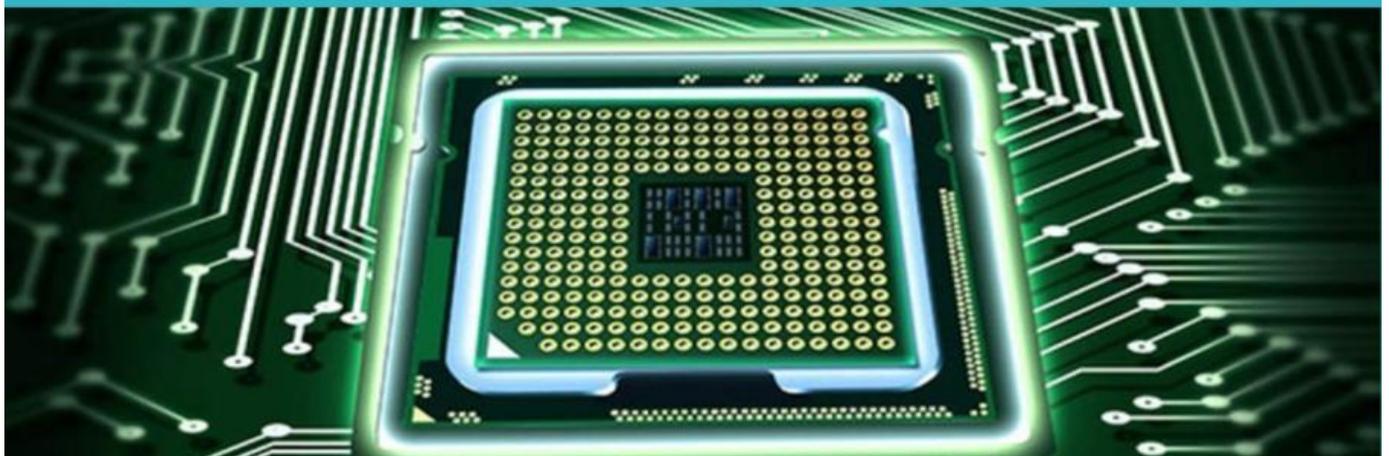


CMR TECHNICAL CAMPUS

Department of Electronics and Communication Engineering

INSIGHT 2021

-Annual Magazine
2021 Edition





CMR TECHNICAL CAMPUS

ESTD: 2009

UGC AUTONOMOUS

Accredited by NBA & NAAC with 'A' Grade



Approved by AICTE, New Delhi and JNTU Hyderabad

Department of Electronics and Communication Engineering

Annual Magazine(2021-2022)



Chief Editor :Prof.G.Srikanth

Magazine Editor :Dr.Suraya mubeen

Student Coordinators:Shivani,Nikitha,Abhilash

Message from Chairman's Desk



Shri C.Gopal Reddy
Chairman

It is rightly said by our Bharat Ratna, Dr. APJ Abdul Kalam “Dream is not that which you see while sleeping, it is something that does not let you sleep.” Yes!!! Indeed, it was my dream, goal and ambition, to establish a Knowledge Center, a Temple of learning, i.e., “CMR Group of Institutions”, which can be witnessed today on sprawling area of 70 acres on Medchal Road, Hyderabad. Currently under CMR Group of Institutions, which was established in the year 2002, have 04 Engineering Colleges and 01 Pharmacy College with over 16000 students studying in various streams of Engineering, Management and Pharmacy. The thirst for Excellence & Service has never subdued among us, thus we wish to make deeper inroads in the field of education by venturing into university, named “CMR Global University”, which will be seeing the light of day soon.

As it is said, Rome is not built in a day; CMR is also not built in a day. 20 years of dedication, commitment and hard work has resulted in CMR Group of Institutions. One of the strengths of CMRGI is its strong Alumni. Till date, CMRGI has successfully produced over 18000 Engineers and 4500 Managers and 1200 Pharmacists. As the Tagline of the Group goes, “Think Placements, Think CMR”, we have been the pioneers in training and placing the students in many reputed companies with good packages. I feel proud to see my students’ donning prominent roles in many of the reputed companies.

Message from Secretary's Desk



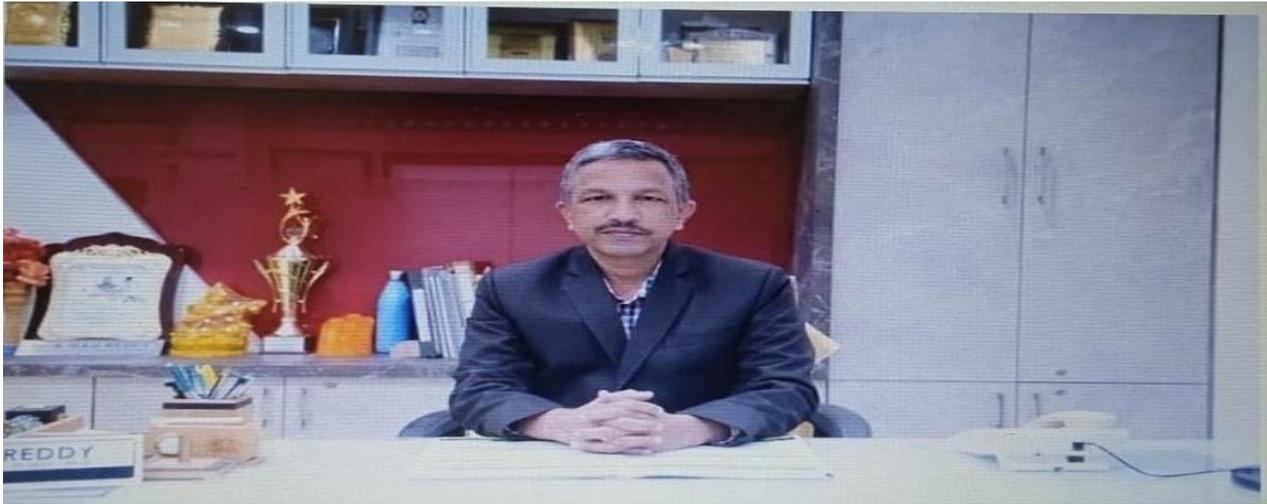
Smt. C. Vasantha Latha
Secretary

As narrated by Swami Vivekananda, “We want the education by which character is formed, the strength of mind is increased, the intellect is expanded, and by which one can stand on one’s own feet”, we at CMR Technical Campus, believe quality education has the power to transform not only individuals but societies and the nation in large.

Our endeavor at CMRTC is to provide the right blend of education and all such necessary components which make students stay in the campus fruitful. The existence of various associations and Clubs, Departmental Associations, Professional Chapters in the campus ensure all-round development which an individual requires. Being in the field of Education for more than a decade, I strongly feel, Education is the key for women to achieve economic independence. CMRTC strongly supports women’s education and all such measures for their safety are taken care by our well functional Women Empowerment Cell of the institute.

I extend a warm welcome to Engineering and Management aspirants to join CMR Technical Campus.

Director



Dr. A. Raji Reddy
Director

Dr. A. Raji Reddy, is a 1990 Batch Mechanical Engineer from Nagpur University. He obtained his Masters' Degree from Regional Engineering College [NIT] Warangal in the year 1992 and Doctoral degree from Osmania University in Mechanical Engineering with Solar Energy as specialization in the year 2008.

In his 28 years of service, he has served in various capacities of administration, research, and academic roles. He even has two years of Industrial experiences in M/s. Ashok Ley Land Ltd., (Ductron Casting Unit), Uppal, Hyderabad.

Currently he has 10 Patents filed on his name and is Investigator of 03 Research Projects to the tune of Rs. 90 Lakh as Grant from Govt. of India. He has successfully guided 10 M. Tech Projects and is currently guiding 03 Research Scholars for their Ph.D. His research areas include solar thermal applications, Biomass conversion technologies, Solar cooking and Heat transfer. There are over 40 Research Articles to his credit in peer reviewed & reputed Journals & Conferences. He is reviewer of few Elsevier published Journals.

Head of the Department



G.Srikanth, Professor &HOD-ECE

G. Srikanth, having 20 years of Teaching and research experience. His area of Specialization is VLSI & Embedded Systems. He has 16 International and national Journals to his credit. Life time member of IETE, ISTE and Member of IEEE. Currently He is working on 2 projects Funded by Department of Science & Technology. He worked as convener for several Faculty Development Programs conducted by the department in association with premier institutes like IITs & NITS and worked as convener for several Conferences. He also has 2 patents filled in his account.

Under his guidance department Centre's are executing various Activities like proposal writing for different funding agencies, research publication, Execution of students' academic project in the Centre's, conducting incubation & innovation activates and organizing Faculty Development Programmes and conferences.

Department of Electronics and Communication Engineering

Vision: The Department of Electronics and Communication Engineering endeavors to become a centre of academic excellence and research.

Mission:

- To provide the students with the state of art technologies to meet the growing challenges of the industry and society.
- To promote research and consultancy through constant interaction with the outside world.
- To inculcate self-learning abilities team spirit, and professional ethics among the students to serve the society

Program Educational Objectives (PEOs)

PEO1: Graduates will be able to Progress in professional career and higher education in Electronics and Communication Engineering and allied fields.

PEO2: Graduates will solve real life problems of Electronics and Communication Engineering and allied fields resulting in significant societal benefit.

PEO3: Graduates will demonstrate self learning skills, team spirit and professional ethics for beneficial development of the society.

Program Specific Outcomes (PSOs)

PSO1: Understand and apply core concepts of Electronics and Communication Engineering in allied fields.

PSO2: Ability to solve complex Electronics and Communication problems with modern tools and cost-effective solutions.

PSO3: Equipped with soft, aptitude and technical skills for effective work in core and IT sectors, individually or in teams.

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Department of Electronics and Communication Engineering

Program Outcomes

- PO1: Engineering knowledge: To apply the knowledge of Mathematics, Science, and Engineering concepts in solving Complex Engineering problems.
- PO2: Problem analysis: Identify, formulate, and solve complex problems to achieve demonstrated conclusions using mathematical principles and engineering sciences.
- PO3: Design/development of solutions: To design solutions for complex engineering problems with appropriate consideration for society.
- PO4: Conduct investigations of complex problems: To use research-based knowledge and research methods including the design of experiments to provide valid conclusions.
- PO5: Modern tool usage: To select and apply appropriate techniques for the design & analysis of systems using modern CAD tools.
- PO6: The engineer and society: Apply the contextual knowledge to assess societal, health, safety, and cultural issues and endure the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability: To understand that the solutions have to be provided taking the environmental issues and sustainability into consideration.
- PO8: Ethics: Develop consciousness of professional, ethical, and social responsibilities as experts in the field of Engineering.
- PO9: Individual and team work: To function effectively either as a member or a leader in multidisciplinary activities.
- PO10: Communication: To communicate effectively to both the peers and the others.
- PO11: Project management and finance: To apply engineering & management principles in their own / team projects in a multidisciplinary environment.
- PO12: Life-long learning: To Realize the need for lifelong learning and engage them to adopt technological change.



Department of Electronics and Communication Engineering

About the Department:

Department of Electronics and Communication Engineering in CMRTC is popularly known as 'Branch of Consistency'. Consistency in all perspectives. In the current world scenario of Digitalization, Media & Communication, 5G Technologies and many more advancements in technologies related to automation, an ECE Graduate plays an important role in building of Nation through Science & Technology. The skills acquired by the students of ECE has landed them in many reputed companies like Mentor Graphics, L&T metro, DSP, Bosch, TCS, Hyundai, etc.. The experienced faculty are the driving force of the department. The Department offers **M.Tech in Embedded Systems** with an intake of 18.

Achievements of the Department are:

- Department is accredited twice by National Board of Accreditation [NBA], New Delhi.
- 25 Patents filed by the Department till date.
- Over 150 Papers published in reputed Journals.
- Established 03 Research Centres: 1. Centre for VLSI & Embedded System Design Centre for Signal & Image processing 3. Centre for advanced Communication System
- Signed MoUs with more than 15 Companies.
- Won 1st prize in Robotics Competition held by IIT Hyderabad, BITs Hyderabad.
- More than 2000 students are facilitated with Internship in companies like HAL, NRSC, BDL, NFC, DRDL, BHEL, ECIL, etc.
- Received funding from government bodies to a tune of 1 crore.
- Industrial Visits to Satellite launch station SreeHarikota, NRSC Shadnagar, Door Darshan Kendra, Ramanthapur, Air force Station, Hakimpet, Hyderabad Radio Station, L&T Metro Signalling and Control station, Nagole and many more places.
- Highest package of 11 lacks in Microsoft.
- Ongoing Consultancy work worth of 16 Lakhs.
- Over 400 students cleared the NPTEL certified Course with Elite Rating.
- Equipment worth 43.5 L from National Instrument laboratory under DST- FIST Scheme
- Established 03 Research Centres: 1. Centres for VLSI & Embedded System Design Centres for Signal & Image processing 3. Centre for advanced Communication System

Professional Memberships:25

List of Faculty members as resource person in STTP/FDP events:14

Faculty Attended FDP in Various Organizations :34

Faculty Development Programme Organised :02

Faculty members obtained certification of MOOC:04

Faculty Members Developed MOOC course :07

Faculty Members involved in Student Innovative Projects:34

Academic Research

| S.N.o | Journal/Conference/Book Chapter | 2021-22 |
|-------|--|---------|
| 1 | No. of peer reviewed journal papers published | 19 |
| 2 | No. of peer reviewed conference papers published | 10 |
| 3 | No. of books/book chapters published | 1 |
| 4 | Patents | 14 |

Academic Toppers

| Sno. | Hall Ticket No. | Branch | Name of the Student | CGPA |
|------|-----------------|--------|---------------------|------|
| 1 | 187R1A04G7 | ECE | M.Vyshnavi | 8.82 |

SWAYAM-NPTEL Student Online Course Certifications : 143

Placements:106

Higher Studies:13

Students Joined Internship:34

Participation in Inter-Institute Events by Students of the program of Study:

| S.No | Name of the student | Name of the Event | State/ National/ International Level | Date | Name of the Award |
|-------------|----------------------------|-------------------------------|---|-------------|--------------------------|
| 1 | Asha Sreenath | Tech Hunt Hackathon In CMRCET | National | 20/8/2021 | 1 st Prize |
| 2 | Gannu Akhil | Tech Hunt Hackathon In CMRCET | National | 20/8/2021 | 1 st Prize |
| 3 | Perpula Shana | Tech Hunt Hackathon In CMRCET | National | 20/8/2021 | 1 st Prize |
| 4 | Kushal Shahu | Tech Hunt Hackathon In CMRCET | National | 20/8/2021 | 1 st Prize |
| 5 | Bakkani Deepak | Ideathon In GNIT | State | 29/09/2021 | 2 nd Prize |
| 6 | Reddy Swathi Priya | Ideathon In GNIT | State | 29/09/2021 | 2 nd Prize |
| 7 | Moiduddin Ahmed | Tech-Expo In BITS Pilani | National | 2022 | 1 st Prize |

Sports Participation:12

EVENTS CONDUCTED

ANTI-PLASTICS PLOG RUN 2021



On 28th September 2021, the event named Anti Plastics Plog run was organised by the NCC cadets of CMR Technical Campus in kandlakoya village to bring the awareness of plastic among the citizens of country.

NAME OF THE EVENT: CLEAN INDIA CAMPAIGN



On 21th November 2021, Clean India Campaign was conducted to bring the awareness about the cleanliness of society among the citizens and students.

Felicitation Ceremony FOR THE REALWAR HEROES OF INDO-PAK



On 31st October 2021, 1971 Indo-Pak War Hero's & Amazing Air Veterans Felicitation ceremony was held at Ravindra Bharathi, the Honourable Governor of Haryana Shri. Bhandaru Dattatreya garu had made the event successful.

BLOOD DONATION CAMP



On 29th December 2021, a blood donation camp was organised in our College. It was held in the CMR Hospital NCC cadets of CMR technical campus come out in large numbers to volunteer for blood donation.

Womens Day Celebration -Department of ECE





One week Short Term Training Programme on Labview

Faculty Coordinator: Dr.Ch.Sudhamani



Innovative Club Event

Faculty Coordinator: A.Vamshidhar Reddy

Name of the Event: Food & Nutrition

Date of Event: March 25,2022

Location of Event: Online

Number of persons attended: 60

Speaker Name: K.Gajalakshmi, Asst. Manager Activation & Sampling – South Branch

Organized Club:

Innovative club, CMR Technical Campus

The event "Food and Nutrition" organised by Innovative club CMR Technical Campus conducted in virtual mode on 25th March 2022 in the presence of Director Dr A.Rajireddy ,Head of Department(ECE),Prof. G.Srikanth and teaching staff across all branches. The event was led and executed successfully under the guidance of Associate Prof. T. SaiKumar. This event organised with the objective to provide Nutrition for the students to maintain healthy diet. The event was successful enough to attended by more than a 60 students.The team of Innovative Club feels proud to organize such a successful event convey thanks to Director and management for their timely advice.



Nestlé

Food & Nutrition Session

Partners with CMR Technical Campus Engineering College, Hyderabad for Digital Engagement



INNOVATIVE Club
THINK IMPLEMENT SUCCEED



**Gaja Lakshmi
Nutritionist**

Virtual Session with our
Nutrition Expert

Date : 25th March, 2022

Time : 6 PM Onwards

Medium : Google Meeting

Meet - uzc-fhjr-vpv
meet.google.com/uzc-fhjr-vpv?pli=1&authuser=1
Satish Vakapatia is presenting

Free radical attack

OXIDATIVE STRESS

Normal cell → Cell attacked by Free radicals → Cell with oxidative stress

FREE RADICAL | ANTIOXIDANTS

Food rich in Antioxidants

- ✓ Beta-carotene (precursor of vitamin A) – fruits and vegetables
- ✓ Vitamin C – fruits and vegetables
- ✓ Vitamin E – wheat germ and vegetable oils
- ✓ Selenium and copper - nuts, cereals, meat, fish, and eggs
- ✓ Herbs – green tea, curry leaves, Tulsi.
- ✓ Also as additives to foods (BHA, BHT)
- ✓ Beverages – Wine, Coffee, Cocoa

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18:46 | uzc-fhjr-vpv

gajalakshmi kes... Chandrakala K A Vamshidhar r...
Satish Vakapatia 4A4 Neeraj ku... 4F2 Hari chand...
19-4A8 Srinath 498 MOHAMME... Dilshad Shaik
5J2_SUMEDHA ... 43 others You



