

Academic year 2023 - 24

## *Department of Humanities and Sciences*

### Our Sincere Thanks to

<i>Chairman</i>	: Sri. Ch. Narsimha Reddy
<i>Vice-chairman</i>	: Sri. Ch. Bhoopal Reddy
<i>Secretary</i>	: Sri .Ch. Srisailam Reddy
<i>Principal</i>	: Dr. A. Srinivasula Reddy
<i>HS -HOD</i>	: Dr.K.V.Reddy

***Our Motto is “Think Placement Think CMR”***

### Message From Management



**Sri. Ch. Bhoopal Reddy Vice-Chairman**

It is my pleasure in congratulating the editorial board on this pleasant occasion of releasing the newsletter. Four years of engineering education at CMREC will not only earn students a degree but will transform students' personality, empowering them to lead a successful life. On this gracious occasion I wish all the best to those who are responsible for bringing out this letter.



**Sri. Ch. Narsimha Reddy Chairman**

I am delighted to know that our college newsletter carrying the campus news and the achievements of our staff and students, who earn credits for the institutions, is being released. I can say with confidence that CMR Engineering College is a role model for others and students getting an opportunity to be associated with us have every reason to expect the best. With the support of qualified, dedicated and hardworking faculty, the institute has achieved enviable ranking in a short span and I have no doubts that with this pace, CMR Engineering College (Autonomous) will march ahead of other eminent institutes at the national level.



**Sri. Ch. Srisailam Reddy  
Secretary & Correspondent**

We are extremely happy in releasing the half-yearly newsletter, highlighting the activities of the college between Jan 2023 and Dec 2023. The laudable exercise of the students and staff of this Institution has already brought laurels in the name of one of the Top 100 Best Colleges Award for the year 2016 by Higher Education News journal. I congratulate the staff and students for this achievement. I wish that everyone continue their untiring efforts not only to retain this reputation but to grow to further high standards. On this gracious occasion I wish all the best to those who are responsible for bringing out this letter.

On reading this text, it would definitely be an inspiration and motivation for the other students and staff to perform better and add on their contributions in the forthcoming issues. Congratulations to all the contributors

I have a great pleasure in expressing my thoughts as the Principal of CMR Engineering College (Autonomous). Our institute holds the manifold distinction of being amongst the best when one considers the present status of technical education today. Our teachers are invited as resource personnel at national and international seminars, conferences and symposia in India and abroad. I wish the best for all our staff and students who reiterate their aims at providing the best in academic and extra-curricular fields. It is my pleasure in congratulating the editorial board on this pleasant occasion of releasing the newsletter. It is great to find a considerable number of winners and participants in co-curricular and extracurricular activities which certainly prove that our staff and students are adequately equipped and possess necessary skill-sets to bring such laurels to the institution. I wish that this number may grow in the years to come.

**Dr.A.Srinivasual Reddy  
Principal**



It gives me immense pleasure to the Newsletter of H&S Department, FRESHMAN. I am extremely happy in releasing this newsletter which highlights the activities conducted by our dept in this Academic Year 2023 -24. I congratulate all the faculty members on their sincere endeavors for their Professional Dept and achieving excellence.



**Dr.K.V.Reddy  
HOD-H&S dept**



**Dr. S. P. Singh  
Dean (H&S) & professor**

## **ABOUT DEPARTMENT**

The **humanities and sciences** strongly acknowledge as the footing subject for all the other branches of engineering discipline. The humanities and sciences department aims at providing competitive quality of education and it supports the students to lay the basic profound foundation of information and knowledge to all the branches of engineering. The objective of the department is to make the students to understand and aware of the importance of sciences and develop a natural elegance and interest towards the engineering and technology, which in turn will enhance and mould the students to a competent professional. It encourages the practical applications of concepts through learning experience and active participation and sharpens the students' strength and capability to converse and think rationally, potentially, and innovatively in several ways and these are appropriate for their discipline. The precept of the department is to cater the formidable education to the students with the assistance of well-qualified, dedicated and highly motivated faculty members. Our faculty's research expertise in all frontier areas in English, physics, chemistry and mathematics will definitely aid the students to enrich their awareness in the engineering studies. The faculty of humanities and sciences, impart the best teaching methodologies to the students, which result to mould the students to the competent and true professionals, who are fit to apply their knowledge innovatively and independently and the outcome is they are recognised ample engineers of the society.



## Our Vision and Mission

*If You Think of Vision and Mission as an Organization's Head and Heart, the Values it holds are its Soul.*  
--- Buzotta

### **VISION**

- To be recognized as a premier institution in offering value based and futuristic quality technical education to meet the technological needs of the society

### **MISSION**

- To impart value based quality technical education through innovative teaching and learning methods
- To continuously produce employable technical graduates with advanced technical skills to meet the current and future technological needs of the society
- To prepare the graduates for higher learning with emphasis on academic and industrial research.

### **Program Outcomes (PO's)**

#### **Engineering Knowledge:**

Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems

#### **Problem analysis:**

Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

#### **Design/development of solutions:**

Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

#### **Conduct investigations of complex problems:**

Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

#### **Modern tool usage:**

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities, with an understanding of the limitations.

#### **The engineer and society:**

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

### **Environment and sustainability:**

Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

### **Ethics:**

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

### **Individual and team work:**

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

### **Communication:**

Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

### **Project management and finance:**

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

### **Life-long learning:**

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **Department of CSE**

## **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

- Excel in professional career or higher education by acquiring knowledge in mathematical, computing and engineering principles
- To provide intellectual environment for analyzing and designing computing systems for technical needs
- Exhibit professionalism, multidisciplinary teamwork and adapt to current trends by engaging in lifelong learning and practice their profession with legal, social and ethical responsibilities

## **PROGRAM SPECIFIC OUTCOMES (PSO'S)**

**Professional Skills and Foundations of Software development:** Ability to analyse, design and develop applications by adopting the dynamic nature of Software developments

**Applications of Computing and Research Ability:** Ability to use knowledge in cutting edge technology

### Department of ECE

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

- Excel in professional career & higher education in Electronics & Communication Engineering and allied fields through rigorous quality education
- Exhibit professionalism, ethical attitude, communication skills, team work in their profession and adapt to current trends by engaging in lifelong learning
- Solve real life problems relating to Electronics & Communications Engineering for the benefits of society

#### **PROGRAM SPECIFIC OUTCOMES (PSO'S)**

- Ability to apply concepts of Electronics & Communication Engineering to associated research areas of electronics, communication, signal processing, VLSI, Embedded systems
- Ability to design, analyze and simulate a variety of Electronics & Communication functional elements using hardware and software tools along with analytic skills

### Department of IT

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

- To provide strong fundamentals in engineering principles to analyze, design and develop optimal solution using modern tools
- To create an Atmosphere for building the ability to lead or work in inter-disciplinary domains collaboratively and complete research & product oriented applications
- Practice Professionalism and lifelong learning in competence by adapting newest technologies with legal, social and ethical responsibilities

### Department of Mechanical Engineering

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

- The graduates exhibit strong knowledge in mathematics, sciences and engineering for successful employment or higher education in mechanical engineering
- The graduates design and implement complex modeling systems, conduct research and work with multi-disciplinary teams
- The graduates communicate effectively with lifelong learning attitude and function as responsible members of global society

#### **PROGRAM SPECIFIC OUTCOMES (PSO'S)**

- Design a Thermal system for efficiency improvement as per industrial needs
- Design and manufacture mechanical components using advanced manufacturing technology as per the industrial needs

## H&S LABS



ELCS CALL LAB



ACS CALL LAB



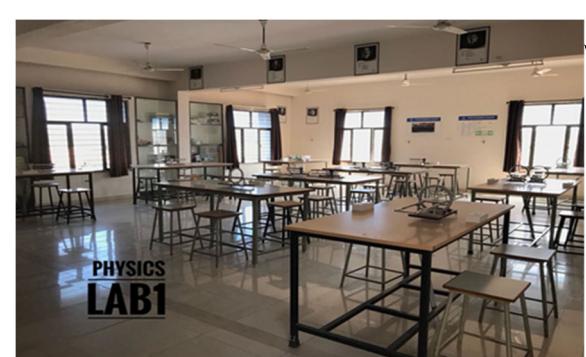
ELCS ICS LAB



ACS ICS LAB



PPS LAB



PHYSICS LAB1

YSICS LAB



APPLIED PHYSICS LAB



CHEMISTRY LAB



BEE LAB ENGINEERING

## Course Intake

S.NO	ACADEMIC YEAR / BRANCH	CSE	ECE	MECHANICAL	INF	PG - CSE	PG - ES	PG - TE	PG- VLSI	TOTAL
1	2023-24	240	240	240	60	24	24	24	0	852

## Student Activities Council

### CREST CMREC'S REALM OF ENGLISH FOR SMART TECHNOCRATS



We have CREST as the literary club of our college. It is formed with the objective to enrich and develop the soft skills and literary skills in writing, reading & thinking amongst the students through various literary activities. It aims at providing a platform to the students where they can unleash their creativity keeping aside those hefty books once a while and unwinding through beneficial and fun filled activities. It brings forward from amongst the students amateur writers, keen debaters and all those who find pleasure and bliss in words and thereby helps to initiate a multidimensional thinking process. CREST is introduced by CMREC gives ample importance to the extra-curricular activities for nurturing the personality of the students. The Literary Club is one of the many clubs initiated by the college as a part of this agenda.

### Women Empowerment Cell - CHARITA

CMREC'S HUB OF AMBITIOUS RADIANT INTELLECTUAL TALENTED AND ACTIVE WOMEN

यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः ।  
यत्रैतास्तु न पूज्यन्ते सर्वास्तत्राफलाः क्रियाः ॥

The divine are extremely happy where women are respected; where they are not, all actions (projects) are fruitless. India is a country of rich varied cultural heritage. It has many religions, customs and traditions. Whichever religion it may be, women are given highest position. To make the impossible come true, women themselves are proving their worth and ability to the society to win the respect they deserve. Engineering is one such profession where in the past, men have been dominant, but times are changing. More and more women are entering into this field but of course nothing comes easy. In view of this, our college has made special efforts to start the WOMEN EMPOWERMENT CELL named CHARITA

## Mathematics Club-CHAMP

(CMREC's Hub of Ambitious Mathematicians & Pragmatists)

CHAMP – Mathematics is a unique subject that is used in day to day activities and continues to remain an integral part of our lives. The Mathematics club is created to sensitize students about this subject and the latest developments taking place in the field of Modern Mathematics. It tries to inculcate deep interest in the students and makes them have a systematic approach towards this subject. The club aims to develop mechanical skills and applications of the subject in their domains. After all every child should enjoy the subject rather than doing it forcefully. This is what the club tries to achieve and make Mathematics fun for everyone.



## AAKRITI-NATURE CLUB

We all know that we are part of the environment we live in. And the solution to many environmental problems lie in our attitude towards environment. Be it awareness to keep our surroundings clean or the realization to conserve natural resources by re-using and recycling wherever possible, they all are attitudinal. But changing the attitudes of 100core plus people is not going to happen overnight. The best way to attempt to bring about a change in the attitudes in the society is through young students. With the support of our management, faculty & students we would like to start and maintain a successful environmental club in our college. It suggests a myriad of activities that clubs can pursue and where to go for help. It encourages us to study the local environment and to contribute to solving environmental problems. In so doing, we will be playing an important role in environmental education for sustainable development (EESD).

## *Events and Activities 2023-2024*

### *Engineer's Day*



CMR Engineering College celebrated Engineers' Day on **14 September 2023** in honor of **Sir M. Visvesvaraya**. The event began with the lighting of the lamp in the presence of Sri Ch. Srisalam Garu, the Principal, HODs, and R&D Head Dr. Syam Sundar.

Speakers emphasized the role of engineers in nation-building, innovation, and continuous learning. Faculty members were honored for their research publications and book authorship with cash prizes and mementos.

### *READATHON at CMREC Central Library*

READATHON is a three-day reading challenge organized at the **Central Library, CMREC**, encouraging students to read for one hour each day. Open to all CMREC students, the initiative aims to cultivate strong reading habit

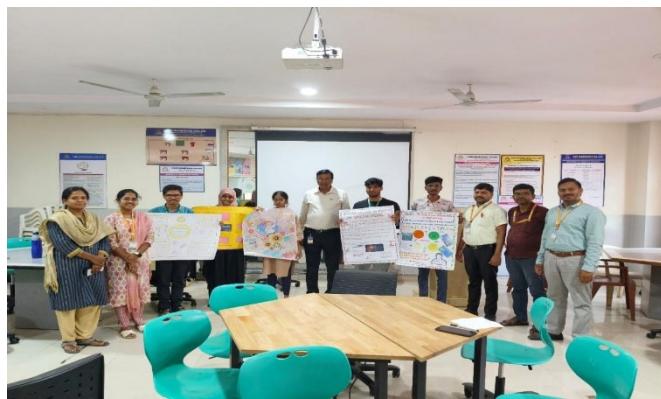


Participants explore a curated special collection of books designed to enhance Speaking, Reading, and Writing (SRW) skills, while fostering creativity, confidence, and critical thinking. The program also motivates students to actively engage in academic workshops and conferences, making reading a memorable learning experience

### *Mathematics Day*

CMR Engineering College, Kandlakoya, Hyderabad, celebrated **National Mathematics Day** on **22nd December 2023**, commemorating the birth anniversary of **Srinivasa Ramanujan** with a series of engaging academic activities. Organized by the **Department of Humanities and Sciences** at **Block-I Auditorium**, the event aimed to foster students' appreciation for mathematics and its applications.

A mathematics quiz competition witnessed 180 enthusiastic participants, engaging in multiple rounds covering arithmetic, logical reasoning, and advanced problem-solving. Additionally, five teams showcased creative and analytical prowess in a poster presentation, illustrating mathematical concepts, statistical models, and data science applications.



#### *Traditional Day Celebrations*



**Faculty Publications (2023-2024)**

**Details of research papers per teacher in CARE Journals notified on UGC website during the year 2023 - 2024**

<b>Sl. No.</b>	<b>Name of the teacher</b>	<b>Title of the paper</b>	<b>Dept. Of the Author</b>	<b>Name of the Journal</b>	<b>ISSN</b>	<b>Year</b>
1.	Dr. Ajjada Renuka, P. Divya	A study on impact of non - performing assets (NPAS) on the profitability of banks	H & S	Journal of Management (JOM)	2347-3959	2023
2	Dr.P Sivasankaraih	Effect Annealing Temperature on Pure and Al-Doped Iron OxideThin Films for Formaldehyde Gas Sensing Application	H & S	ECS Journal of Solid State Science and Technology (IOP)	2162-8777	2023
3	Dr. Puli Nageswar Rao	Effect of glass modifier to former ratio on spectroscopic and transport properties of silver boro-tellurite glass system	H & S	Journal of Materials Science:Materials in Electronics	0957-4522	2023
4	Dr. Marla Umakanth	Exploring Unsteady Three-Dimensional Casson Fluid Flow through a Stretching Surface with Heat Source/Sink: A Numerical Investigation	H & S	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences	2289-7879	2023
5	Dr. Surinderpal Singh	Fabrication of nanoarchitectures for next-generation supercapacitors: interconnected Zn <sub>2</sub> SnO <sub>4</sub> and 2D rGO for enhanced energy storage performance	H & S	Journal of Materials Science:Materials in Electronics	0957-4522	2023
6	Dr. Surinderpal Singh	A novel Communication Pathway Metric Evaluation using throughput and Energy Improvements over Wireless Sensor Networks	H & S	Internartional Journal on Recent and Innovation Trend in Computing and Communication	2197-5248	2023
7	Dr. Sunitha Rani Yedhiri	Unsteady MHD rotating mixed convective flow through an infinite vertical plate subject to Joule heating, thermal radiation, Hall current, radiation absorption	H & S		(O) 1588-2926 (P) 1388-6150	2024
8	Dr. Sunitha Rani Yedhiri	Consequences of Thermal Diffusion and Chemical Reaction on Mixed Convection MHD Casson	H & S	CFD Letters	2180-1363	2024

		Fluid through Porous Media with Inclined Plates				
9	Dr. Puli Nageswar Rao	Influence of samarium doping on structural, thermoelectrical properties of nanocrystalline cobalt ferrite	H & S	Journal of Materials Science:Materials in Electronics	0957-4522	2024
10	Shaik Shaheen	Investigating critical digital literacy in an ESL classroom for higher education-teacher perspectives and methods	H & S	Education and Societies	2778-6864	2024
11	Dr S Rangaraju, Mr. Banothu Shankar	Professionalism of the English Teachers in the post pandemic Era: An Emperical Study.	H & S	Education and Societies	2278-6864	2024