



Content

HOD Message	1
Guest Lecture	2
Alumni Talk & Social Activity	3
FDP	4
Mini Project	5
Faculty Tech Talk, MOOC & Achievements	6
Faculty achievements	7
Student achievements	8,9

HOD's MSG

Greetings!

We are delighted to present our newsletter to you all bringing you all the developments, activities conducted at Department of physics, CMRIT. Dr GYANEN-DRANATH MOHAPATRA principal scientist at CSIR LAB delivered talk on Data Science. He showcased recent developments in the field of data analytics. Mr. Ayush Gupta who secured 29LPA offer for this year interacted with students and provided guidelines to hone coding skills. Certification course on INNOVATIONS was conducted to provide application skills to budding engineers. Mini projects exhibition saw some of the finest solutions to real life problems. Over 50 students received best project awards. We will continue to nurture talent and foster creativity.

Wishing happy reading!

Dr. Raveesha K. H
HOD, Dept. of Physics

Internship opportunities from Physics Department

Department of Physics is offering Internship opportunities for first year students in the field of Electromagnetics, Electronics, Optics and Fluid Mechanics. Students will be trained to inculcate fundamental knowledge and skills required to carry out research and promote Innovations in Engineering. This course essentially covers basic research experiments, measurement techniques, Programming tools required to carry out research.

Best wishes

Course content:

- ⇒ Basic Experiments using Digital storage oscilloscope
- ⇒ Optoelectronics experiments
- ⇒ Electronic circuitry – Soldering
- ⇒ Electromagnetic Sensors for Mechanical / Civil /Electronics/ Electrical Engineering systems
- ⇒ Beginners exercises with MATLAB programming
- ⇒ Innovative experiments in Electronics / Electrical / Mechanical engineering

Guest Lecture

Hone Research skills for better prospects in Engineering
Mr.Saravanan Nagesh
Research Scientist
Fraunhofer-Institute for High frequency physics and Radar technology
European Union's Maria-Curie fellowship awardee



Radar engineering attracts people from Electronics and communication, computer science, data science, Machine learning and allied branches of Engineering for developing various applications such as signal processing, data management, networking etc, said Mr Saravanan during his lecture for fresh batch of engineering students during Induction program 2023. He elaborated on his experiences as research trainee at DRDO, masters student at TU Delft and Research career at Fraunhofer High Frequency physics Radar development Institute. He enlightened the students on applications of Radars in storm prediction, movement of space crafts, possibility of earthquakes, oil spill in oceans, 3D pictures of urban structures. Answering a question from Shashank , First year ECE, he highlighted higher education opportunities, projects and research. Vedant of CSE enquired about the applications of Radars to detect cosmic radiation. Mr Saravanan described the field of Radio astronomy which uses large antenna system for radio mapping the sky.

Guest Lecture

Adaptation to changes is crucial for success
Mr.Godwin, Senior Engineer, Electronics Division, General Electric,
Bengaluru



Engineering offers many challenges and to succeed, one has to adapt to changing situations, put in efforts to learn new concepts and work in group with a common goal, said Mr Godwin, Senior Engineer at General Electric. He encouraged students to inculcate group building , leadership, problem solving skills. He narrated several health care problems and showed how his Electronics engineering background with coding skills were necessary to find solutions. He conducted activities with students groups to demonstrate group building skills. He stressed that scouting innovations, upgrading knowledge , observing real life problems are important. He enlightened the students on how we transform as better engineers from KNOWING to DOING and finally BEING status through live examples.

ALUMNI TALK

Ms. Ayush Gupta

7/3/2024

Coding skills major role in securing High paid jobs

Date: 24-06-2023

Budding engineers need to focus on Data structures and algorithms Internships, research activities which provide applications skills, an important requirement in core companies, said Mr Ayush Gupta , alumnus of CMRIT. He bagged 29LPA offer from Japanese company. By inculcating continuous learning, experimentation skills, employability levels are upgraded, he said.He enlightened students about his projects, job interviews. Elaborating on higher education, he stressed that research skills are necessary to pursue MS. He mentioned about various universities specialized in Data Analytics . Encouraging students to inculcate Coding skills, he suggested that centres of excellences at CMRIT offer research opportunities



SOCIETAL ACTIVITY TRAINING PROGRAM FOR 11th and 12th grade students for Kendriya Vidyalaya Jalahalli on 2/12/2023

A session on careers after 12th std was conducted at Kendriya Vidyalaya Jalahalli on 2/12/2023. Also, Live demonstrations of Principles of Physics pertaining to 11th and 12th curriculum were conducted . Concepts of Electricity, Magnetism , Optics, Mechanics were discussed. Maths activities were demonstrated to showcase applications. Participants mentioned that these workshops are useful as they provide training on linking concepts with real life problems.



Department FDP

ONE DAY FACULTY DEVELOPMENT PROGRAMME FOR SCIENCE TEACHERS

on

18th SEPTEMBER 2023

Science workshop for teachers of SDM High school teachers was organized by Department of Physics, CMR Institute of Technology and SDM Group of Institutions on 18th September 2023 at Ujire. Over 20 teachers participated. Live demonstrations of Principles of Physics pertaining to 10th curriculum were conducted. Concepts of Electricity, Magnetism, Optics, Mechanics were discussed. Maths activities were demonstrated to showcase applications. Participants mentioned that these workshops are useful as they provide training on linking concepts with real life problems.



Guest Lecture

Date- 09/12/2023

Recent Trend of Data Science in Modern Day Applications

**Dr. Gyanendranath Mohapatra, Principal Scientist,
CSIR –Fourth Paradigm Institute, Bangalore**

Dept. of Physics, in association with Institution's innovation council, has organized invited talk (online) on Recent Trend of Data Science in Modern Day Applications for the 1st year students of CMRIT. The speaker explained about use of various Weather Research and Forecasting (WRF) model in overcoming urban extreme rainfall events (UEREs) and natural calamities like tropical cyclones. The talk was arranged on Google Meet platform and around 60 students participated in the event. The speaker also explained about various on-site training options available for BE students in CSIR labs.



Mini Projects Exhibition - Semester II

Date : 20th and 21th December 2023

Venue : Class Rooms

Timing : 1-4 pm

Nearly 90 teams have registered and participated in the mini-project competition held on 20th and 21st December 2023. The projects were software-related and electronics. The projects were evaluated by the teams of the Jury and two best projects from each sections were selected.

Best Projects winners (Section wise)

Section	Roll No	Students Name	Title of Project	Place
A	A-12	ANANYA VERMA	Flight Reservation	I
	A-34	H V SKANDA	Matrix Operation	II
	A-35	HARSH BAGRI		
B	B-37	RACHANA D.N	Automatic Street Lighting	I
	B-38	MADHU SHREE CL		
	B-39	MOKSHA GANESH S		
	B-49	MOHAMMED RAKSHAN	ARDUINO OBSTACLE SENSORE AUTOMATION TOLL GATE	II
	B-50	H B PRIYA		
	B-51	DILIP KUMAR V T		
	B-34	R PRAGNA		
B-35	R RAHUL	II		
B-36	R SHARMISTHAA			
C	C-01	RIYA JAYANTI	House price prediction model E-library Student management system	I
	C-02	RUDRAKSH		
	C-03	SADHURAM AGARWAL		
	C-10	SATYAM RAJ	Human following robot using arduino	II
	C-11	SEVVAKULURU RADHAKRISHNA TEJSAI		
C-12	SHAIK ASLAM SAMI			
D	D-25	PRIYANSHU MADHUP	MCQ based quiz application (GUI)	I
	D-26	RACHIT JOSEPH		
	D-27	RAVAL PARAM VIPULBHAI	Python based password manager using Fernet encryption	II
	D63	M CHAKRADHARA REDDY		
	D62	VISHNU M		
E	E-44	AYAN POKHREL	I. Post Installation of Arch Linux 2.	I
	E-42	NIKHIL CHAUDHARY	Sign Language detector	II
F	F-62	RAMESH V	I. Smart street light.	I
	F-59	MOHAMED AQUEEB		
	F-03	PARTIB DEY		
	F-61	PAVAN TARANATH HEGDE	II. River cleaning Robot	II
	F-58	VINAY KUMAR H R		
F-63	S. SANVI			
G	G-10	APOORVA THOLPADY	Traffic management	I
	G-11	ARANYA BANDHU		
	G-12	ARAVIND A		
	G-49	HARSHINI ASAPU	Anti lost tracking device	II
	G-50	NADEPALLY SHREYA		
G-51	AAYUSH RASAILY			
H	H-16	RIONA GHORUI	AI chatbot, Tictac toe game, Election mangement	I
	H-17	S B SAMYUKTHA		
	H-18	SANJANAA NAGARAJA		
	H-01	M TANUSREE REDDY	Libraray Managemnt, cafetareca billing	II
	H-03	MALLIKARJUN CHINMALLI		
H-02	MAINAK ROY			



Faculty Tech Talk

Dr. Raveesha K H tech talk topic Moore's law and Aditya Solar mission on 1st Sep 2023

Faculty MOOC

S No	Name of Faculty	Name of Course	Agency (NPTEL, coursera)*	Status (Registered/ yet to register/ Ongoing)	Date of Start	Certificate
1	Dr. Raveesha K H	Newtonian mechanics	NPTEL	REGISTERED AUG TO OCT 2023	23rd AUG 2023	Registered
2	Dr. Rajesh Gopal	Fluid Dynamics for Astrophysics	NPTEL	REGISTERED Jan to April 2024	22 Jan 2024	Registered
3	Dr. S S Hegde	Electronic Theory Of Solids	NPTEL	REGISTERED Jan to April 2024	22 Jan 2024	Registered
4	Dr. Ramdas Balan	Carbon composite and application	NPTEL	REGISTERED Jan to April 2024	22nd Jan 2024	Registered
5	Dr. Suvitha A	Physics of Renewable Energy Systems	NPTEL	REGISTERED AUG TO OCT 2023	29th August 2023	Completed
6	Prof. Sudarshana	Carbon composite and application	NPTEL	REGISTERED Jan to April 2024	22nd Jan 2024	Registered
7	Dr. M.A. Liily Grace	Physics of Renewable Energy Systems	NPTEL	REGISTERED AUG TO OCT 2023	29th August 2023	Completed-

Student achievements

SMART INDIA HACKTHON 2023

Team of first-year students shortlisted for the Software Edition GRAND FINALE of SMART INDIA HACKTHON 2023, took place at the Nodal Centre, St. Joseph College of Engineering, on the 19th-20th of December 2023.

Team: Ctrl+Alt+Innovate

Students Name : Karthik S Nair, Aditya Harikumar, Anjali Sreeja, Deepa Reddy , Yash Kumar Rajput, Keerthana.



BIOMED HACKATHAN 2024

We are glad to inform you that first year student group has won Rs 25,000/- Cash prize at BIOMED HACKATHON organized at Visakhapatnam by Geetham university on 13/3/2024. Their project title is PORTABLE DEVICE FOR FOETAL MOVEMENT COUNT MONITORING.

Participated students : ROHANA N, CHINMAY R A, ANKITHA N, MANOJ GJ, JYOTHI

Guide : Dr Rajesh Gopal & Ilango.

