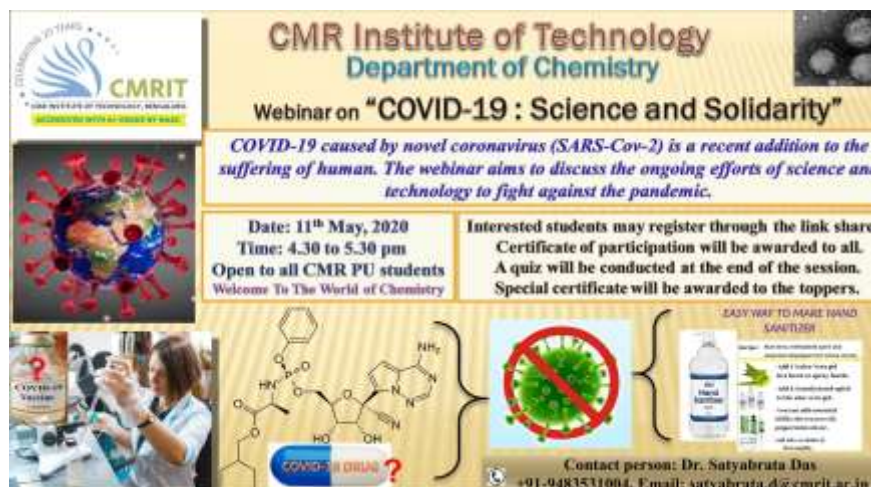


# DEPARTMENT OF CHEMISTRY NEWSLETTER

JANUARY - JUNE 2020

## WEBINER FOR PU STUDENTS

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**CMR Institute of Technology**  
Department of Chemistry

Webinar on "COVID-19 : Science and Solidarity"

COVID-19 caused by novel coronavirus (SARS-Cov-2) is a recent addition to the suffering of human. The webinar aims to discuss the ongoing efforts of science and technology to fight against the pandemic.

Date: 11<sup>th</sup> May, 2020  
Time: 4.30 to 5.30 pm  
Open to all CMR PU students  
Welcome To The World of Chemistry

Interested students may register through the link shared. Certificate of participation will be awarded to all. A quiz will be conducted at the end of the session. Special certificate will be awarded to the toppers.

EASY WAY TO MAKE HAND SANITIZER

Contact person: Dr. Satyabrata Das  
+91-9483531004, Email: satyabrata.d@cmrit.ac.in

A Webinar on COVID 19: Science and Solidarity was conducted for CMR PU students by the Department of Chemistry on May 11, 2020 with an aim to discuss the ongoing efforts of science and technology to fight against the novel coronavirus COVID-19. Around 61 participants registered for the webinar.

## FACULTY TECH TALK

1. Perylene diimide based star-shaped small molecular acceptors by **Dr. Prabhat Gautam** on 27<sup>th</sup> May 2020.
2. Synthesis of Conducting Polymers and their Diverse Applications by **Dr. Subrata Mondal** on 27<sup>th</sup> May 2020.
3. Can you protect your design? by **Dr. Subhi Baishya** on 28<sup>th</sup> May 2020.
4. Organic Solar Cells by **Dr. Priti Gupta** on 29<sup>th</sup> May 2020.
5. Dynamics of gp41-trimer on HIV-entry: a study based on homology modelling and MD simulation by **Dr. Satyabrata Das** on 29<sup>th</sup> May 2020.
6. Supercapacitor for Energy Storage by **Dr. Manjunatha M** on 30<sup>th</sup> May 2020.
7. Biological importance of Thiazole containing compounds and their metal complexes by **Dr. Fazlur Rahaman** on 30<sup>th</sup> May 2020.
8. Semiconductor Photocatalysis for Dye Degradation in Industrial Effluents' by **Dr. Chaitanya Lekshmi** on 30<sup>th</sup> May 2020.

## PUBLICATIONS

Enhanced catechol biosensing on metal oxide nanocrystal sensitized graphite nanoelectrodes through preferential molecular adsorption, I. C. Lekshmi, I. Rudra, R. Pillai, Sarika C, M. S. Shivakumar, C. Shivakumara, S. B. Konwar, B. Narasimhamurthy, Journal of Electroanalytical Chemistry, Volume 867, 15 June 2020, 114190.

## SCIENCE CLUB



**Crossword Puzzle Contest** on Engineering Chemistry was organized by Department of Chemistry on February 27, 2020 as a part of Science Club Activity. It was attended by 25 participants.

The aim was to promote the thinking and problem solving ability of the participants.

**Online Tech-Quiz on “Chemistry and Technology”** was organized by Department of Chemistry on 23<sup>rd</sup> April 2020. The objectives of the Science Club is to quench a student’s thirst for science by organizing various activities such as Quiz, Visits to labs/industries, Talks/Seminars, projects and to Integrate technical skills with scientific theories.

**Online Extempore on Global Issues** was being organized by Department of Chemistry on 28<sup>th</sup> May, 2020. The event was attended by around 30 students who spoke on issues such as energy and water crisis, air and water pollution, e-waste management etc. The aim of the event was to make the students aware of the issues faced by mankind and solutions which need to be undertaken to solve them.

**An Online essay writing competition on the title “Role of Nanotechnology in everyday life”** is being organized by the Department of Chemistry on 27<sup>th</sup> May, 2020. Over 40 students participated in the event. The aim of the event was to make the participants aware of the significance of Nanotechnology in our life.

## MOOC COMPLETED

**Dr. Fazlur Rahaman**

Coursera – Air pollution-a global threat to our health

**Dr. Manjunatha M**

Coursera – Molecular Spectroscopy

**Dr. Priti Gupta**

Coursera – Organic Solar Cells

**Dr. Subhi Baishya**

NPTEL – Patent drafting for beginners

**Dr. Prabhat Gautam**

Coursera- Air pollution-a global threat to our health

**Dr. Satyabrata Das**

Coursera-Nano-Technology-Makers course

**Dr. Subrata Mondal**

Coursera-Nano-Technology-Makers course

## DEPARTMENTAL MEGA PROJECT

**Development of Donor-Acceptor small organic molecule for fluoride ion sensing-** Dr. Fazlur Rahaman, Dr. Priti Gupta, Dr. Prabhat Gautam, Dr. Subrata Mondal



## STUDENT PROJECT

Student team of **Pratik Kumar Mishra** (team lead) and **Rajneesh Khare, Parth Yadav, Rayeef Ali khan, Riddhi Rana, and S. Sukruth** of CSE first year, under the mentorship of **Dr. Priti Gupta** has cleared the quarterfinal round and has entered in the semifinal round of **DST-Texas instrument (IICDC 2019)**. The team got USD 200 worth Texas instruments product to carry out the PoC.

## DESIGN REGISTRATION

**Dr. Subhi Baishya** has filed two design registration on food stuff under IP India. The examination report has been received and comments are

## SPONSORED RESEARCH PROJECTS

**DST-Technology Mission Division (2 yrs: 2020-2022)**

Title: Design and construction of amperometric catechol biosensor and investigations on analyte interferences for technology development to aid near zero discharge of effluents to indian waterbody systems  
Principal Investigator: **Dr.Chaitanya lekshmi Indira**

Start Date: 27/01/ 20202

Total Budget: Rs. 38,08,816/-

**SERB-Teachers Associateship for Research Excellence (TARE)**

Title: Investigations on colossal magneto-dielectrics of  $\text{Fe}_3\text{O}_4\text{-ZnO}$ ,  $\text{Fe}_3\text{O}_4\text{-}\alpha\text{-Fe}_2\text{O}_3$  and  $\text{NiFe}_2\text{O}_4\text{-NiO}$  nanocomposites analysing A and B site transition metal ion ordering of the ferrite lattice

Principal Investigator: **Dr.Chaitanya lekshmi Indira**

Start Date: 01/11/ 2019

Total Budget: Rs. 18,30,000/-



Department of Chemistry

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Weblink: <http://www.cmrit.ac.in/chemistry/>