



RAMAIAH
UNIVERSITY
OF APPLIED SCIENCES



The Catalysis Society of India

International Conference on
Advances in Materials Research
(ICAMR-2019)

Conference on
25, 26 and 27 July, 2019



**RAMAIAH
UNIVERSITY**
OF APPLIED SCIENCES



The Catalysis Society of India

International Conference on
**Advances in Materials Research
(ICAMR-2019)**



Organized by

**Departments of Chemistry and Mechanical &
Manufacturing Engineering**

Ramaiah University of Applied Sciences, Bengaluru

In Association with

Catalysis Society of India – Bengaluru Chapter

Conference

Date and Venue : 25, 26 and 27 July, 2019

Ramaiah University of Applied Sciences

New BEL Road, Bengaluru – 560 054

www.icamr-ruas.org

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About University and Departments:

Ramaiah University of Applied Sciences (RUAS) was established as a Private University under an act passed by the Government of Karnataka. RUAS is sponsored by Gokula Education Foundation (Medical), a Public Charitable Trust of M.S. Ramaiah family. Envisioned as a modern as well as innovation-intensive University, RUAS is engaged in interacting with industry, business, communities and government organizations. RUAS, a Comprehensive University and Unitary in nature, has pioneered the concept of outcome-based education in India. The university has Implemented outcome-based curriculum with a focus on imparting to students knowledge and understanding, cognitive abilities and practical skills relevant to professional and societal needs. The University has adopted global best practices in teaching, learning and assessment to ensure all round development of students for a successful career. The University's programme are inter and multi-disciplinary in nature and designed to train students to be creative, innovative and imaginative graduates. The University, at present, has established Faculties in Engineering and Technology, Art and Design, Management and Commerce, Hospitality Management and Catering Technology, Pharmacy, Dental Sciences, Mathematical and Physical Sciences and Life & Allied Health Sciences. Through these Faculties, the University offers Undergraduate, Postgraduate and Doctoral programmes. The Faculties offer an enriched curriculum drawn from the strong interactions between the Faculties and Industry as well as business.

Department of Chemistry was established under the Faculty of Mathematical and Physical Sciences in the year 2014. The department in addition to supporting other academic programmes of the University, offers M.Sc. programmes in Industrial Chemistry, Analytical Chemistry and Organic Chemistry. It also offers Ph.D. programme in chemistry. Department has qualified teaching and non-teaching staff with commitment for competency based quality education and research. The practices involve inter & multidisciplinary approach adopting global educational practices with emphasis on development of critical, analytical and problem solving abilities in its graduates and associates with a passion for lifelong learning and independent thinking. Chemistry department is closely working with Industries and government agencies for providing solutions to their problems, meanwhile bringing that experience into academics.

Department of Mechanical and Manufacturing Engineering offers Bachelor's program (B.Tech.) in Mechanical Engineering and Master's Programs (M.Tech.) in Thermal Engineering, Advanced Machinery Design, Manufacturing Technology and Engineering Management, Robotics Engineering, Sanitation Engineering and Waste Management and User Oriented PG Programmes. Department has a blend of young, experienced and qualified faculty who have exposure to both industry and academics. Major thrust areas for Ph.D. Programme in the department are - Thermal Engineering, Design & Dynamics, Manufacturing Engineering, Industrial Engineering and Management. The department has been regularly organizing user oriented customized training/ workshops for industry personnel. Research projects funded by Central and State Governments that are beneficial for the society, are in various stages of implementation. The advanced technological facilities provide a major impetus for conducting collaborative and interdisciplinary research. Researchers and industries utilize these facilities for their developmental activities.

Catalysis Society of India – Bengaluru Chapter:

The Catalysis Society of India (CSI) was founded in March 1973 at Banaras. The main mandates of the CSI are to: encourage catalysis research in India, organize professional meetings between researchers, enhance mutual interactions and encourage cooperation between industry and academia. Catalysis research activity has spread across many organizations during the past 46 years. During the last four decades, the catalysis community in India has made significant strides both in applied and fundamental research. Many catalysts and processes have been developed and commercialized, notably by IIP, PDIL, IPCL/RIL, NCL, IICT and ACC in petroleum refining, petrochemicals manufacture, fertilizers production and fine chemicals synthesis. CSI-Bengaluru chapter was established in 2016 by eminent catalysis scientists from various organizations in Bengaluru like PPISR, SABIC, SHELL, HPCL, JNCASR, I.I.Sc., etc. The society is actively working on promoting research in the area of catalysis and bringing together researchers from academia and industry on one platform.

About the Conference:

Materials Research has been practiced from ancient times. With the advent of modern techniques this has gained momentum. Today materials have influenced practically in all the fields of human life. Recent advances in materials research, include polymeric materials and metallic materials for engineering, catalytic, biological, energy, optical and electromagnetic applications. Various scaffolds used in human body have inspired the medical, dental and pharmaceutical fields. Semiconductors, liquid crystals and conducting polymers, have enriched electronic and sensor fields. Membrane technology has contributed immensely in providing clean water to public. Nanomaterials have occupied the space in wastewater treatment, medicine, pharmacy and optics. With the current impetus on Make in India policy of Union Government of India, many startups and established industries are thriving to invest in materials research. The conference will provide a platform for sharing research work, and networking with industries to develop industry - academia collaborations. ICAMR- 2019 will be a forum for presentation and discussion of recent advances in all fields of materials science and nanomaterials.

Conference Topics:

1. Advanced Polymeric and Metallic Materials

- Polymer Matrix Composites
- Metal and Polymer Alloys
- Metal-Matrix Composites
- Ceramic Matrix Composites
- Processing, Modeling, Simulation and Optimization of Composites
- Tribological Properties of Composites

2. Catalytic Materials

- Homogeneous Catalytic Materials
- Heterogeneous Catalytic Materials

4. Engineered Materials In Electronics and Sensors

- Semiconductors and Composites
- Liquid Crystals
- Conducting Polymers

5. Functional Materials

- Green Materials
- Photonic Materials
- Multi ferroic and Magnetic Materials
- Carbon and related Materials
- Energy Materials

6. Membranes and other Advanced Materials

7. Nanotechnology and Nanomaterials

3. Biomaterials related to Medicine/Dental /Pharmacy

- Scaffolds and Antimicrobial Materials
- Drug Design and Delivery
- Implant Materials

- Theoretical Modelling and Computer Simulations
- Shape Memory Alloys and Self-Healing Materials
- Magneto Caloric and Thermoelectric Materials
- Polycaprolactone and Electroactive Polymers

Publication in Journals

All submitted papers for ICAMR-2019 will go through peer reviewing process by national and international experts. The accepted and registered full length articles will be published in AIP Conference Proceedings (Scopus indexed)

Paper Submission:

Authors are invited to submit their original research studies, review articles on the above mentioned themes and related topics. The full length papers should be sent by e-mail to the conveners.

Email: ruasicamr2019@gmail.com

Important Dates:

Call for Abstracts	From 30 th March to 30 th June 2019
Notification of acceptance of abstracts	5 th July 2019
Dead line for submission of full Length Paper	31 st August 2019
Registration Dates	on or before 15 th July 2019
Conference Dates	25, 26 and 27 July, 2019

Guidelines for Paper Submission

- At least one author of the accepted paper must register and present (oral/ poster) in the conference
- Authors are informed to submit the title (Font size 12, bold) and abstract (Max. 200 words) of the paper with an indication of the preferred category of session and type of presentation (oral or poster) to the e-mail address: ruasicamr2019@gmail.com
- Prospective authors are invited to submit papers with 8 pages (AIP Conference Proceedings template can either be downloaded or obtained from the conveners) covered under normal registration
- Authors are required to kindly refrain from plagiarism in any form
- For paper template Format, paper submission details and other details, please visit our website (<http://icamr-ruas.org>)
- Poster Size: 90 x 120 cm
- Under each category, there is an award for Best Research Poster

Awards will be presented for Outstanding Research paper in each category

Registration Details:

Category	Registration fee in INR	Foreign Author Registration fee in USD
Delegates from Industry	6,000	300
Delegates from Academia and R&D institutions	4,500	250
Research Scholars/ PG / UG students	2,500	200
Spouses / Additional Person	1,000	100

Note:

The registration fee does not include expenses for accommodation.
Fee may be remitted to the following account online and the copy of receipt (or UTR number) may be sent by email (ruasicamr2019@gmail.com).

Account Details:

Account Name	MSRUAS - PEENYA CAMPUS
Account Type	Savings Account
Account Number	914010033410657
IFSC	UTIB0000559
MICR	560211017
Bank	Axis Bank Ltd
Branch	Rajajinagar, Bengaluru 560 010
PAN No.	AADAM2496A
TAN No.	BLRM21627E
GST No.	29AADAM2496A1ZN

Sponsorships

Prestigious national scientific organizations, funding agencies like banks, foundations and corporate sectors promoting research and development under their corporate social responsibility programmes are being invited to co-sponsor this conference which aims to deliberate crucial issues like materials research, advanced materials for industry and society.

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Platinum Sponsor	200,000
Gold Sponsor	100,000
Silver Sponsor	50,000
Bronze Sponsor	25,000

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Black and White Half page	4,000

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Sri. Revaiah R.G., Scientist "F", DEBEL, DRDO, Bangalore

Dr. Vinod C Prabhakaran, Principal Scientist & Assoc. Prof (AcSIR), Catalysis Division, CSIR – National Chemical Laboratory, Pune, India

Dr. S. Basavarajappa, IIT DWD, Hubballi

Dr. G.L. Samuel, IITM, Chennai

Dr. Narendranath, NITK, Mangalore

Plenary Speakers:

Dr. Chinnakonda S. Gopinath

Dr. C.S. Gopinath is Chair, Catalysis and Inorganic Chemistry Division, CSIR – National Chemical Laboratory Pune and well known material scientist. He has published several research articles with special emphasis on catalytic and energy materials. His contributions in this field are immense and students from his laboratory have spread across globe. His research group is focused in understanding the fundamentals of surface catalytic reactions on the real-world complex catalytic materials at a molecular level,

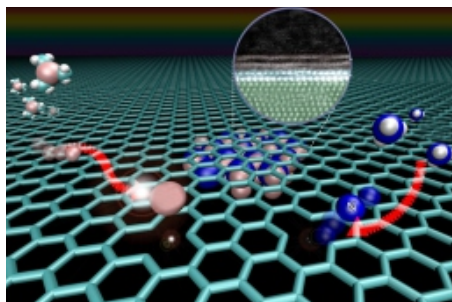
and to suggest the ways to control the surface catalytic reactions based on the molecular level understanding. This has led to the development of highly active and/or selective catalysts, which might help to solve the critical issues of highly selective chemical processes in different catalytic reactions.

Dr. Gurram Kishan

Dr. Kishan is a global technology leader with in depth understanding of various aspects of chemical technology like Organic chemistry, Catalysis, Polymer science and Process technology. He is involved in resource management, strategy and planning. He has been awarded several patents in the field of Polymers and Catalysis. Dr. Kishan has commercialized various processes and has received CV Raman Award, most valuable award, super achiever award, etc.

Dr. Vinod C Prabhakaran

Dr. Vinod Prabhakaran works in the field of surface science with special emphasize on understanding nanoscale catalysis phenomena. He has designed new functional nanomaterials for catalytic



application that require a molecular level understanding on the bond breaking and making process on the catalyst surface. His research group is involved in the creation of flat model catalyst surfaces or structured nanoparticles and employ surface sensitive technique like X-ray Photoelectron Spectroscopy (XPS) and high resolution microscopes like STM/AFM and HRTEM to arrive at structure vs activity correlations

Dr. Prashantha Kalappa

Dr. Prashantha is a well-established polymer scientist. He **has made novel and significant contributions to advanced polymeric nanocomposite materials and multifunctional materials**. His works include interpenetrating polymer networks, carbon nanotube filled polymeric composites, shape memory polymer materials, process and development of bio based polymeric materials, etc. He has travelled extensively to deliver lectures of his expertise. He has received various research funding from different funding agencies such as French regional research funding and more importantly he has worked with many industrial projects.

Dr. Virendra Kumar Gupta

Dr. V. K. Gupta's research and technology interests are into high performance plastics and elastomers; polyolefin catalysis and products including ultrahigh molecular weight polyolefins; biopolymers including carbon dioxide plastics, ionomers and C4 based polyisobutylene products. Specialty PVC and elastomeric products. He is directing and implementing research and technology program in polyolefins products and catalysts, PVC process and products. He has expertise in elastomers - PBR, SBR, butyl rubber and halobutyl rubber and high performance plastics.

Dr. Balaram Sahoo

Dr. Balaram Sahoo obtained his M. Sc. (Physics) degree from Utkal University, Bhubaneswar, and M. Tech (Met. Engg. & Mat. Sc.) Degree from IIT Bombay, Mumbai. He received his Ph.D. (Natural Sciences) in the year 2006, from University of Duisburg-Essen, Duisburg, Germany. He worked as a post-doctoral scientist (Environmental Science) at the Swiss Light Source, Paul Scherrer Institute, Villigen PSI, Switzerland. He, also, worked as a post-doctoral scientist (Photon Science) at PETRA III, in Hamburg Synchrotron Radiation Laboratory (HASYLAB), Hamburg, Germany. He has been a faculty member of MRC, IISc., since 2012. Dr. Sahoo's research group is actively working on developing the cutting edge technologies and performing high level research in materials synthesis, characterization, property measurement and device fabrication using a wide variety of materials and hybrid systems.

Dr. Numbury Surendra Babu

Dr. Numbury Surendra Babu obtained Ph.D. from S.K. University, Anantapur, India. He has over 15 years of teaching and research experience and published more than 40 research articles in several reputed journals. He is supervising several Ph.D. and post graduate students. His research interests include computational design of Dye-sensitized solar cells and polymer solar cells. He has delivered several talks on computational quantum chemistry and design of organic solar cells in India and abroad.

Dr. Mahesh B

Dr. Mahesh B. Obtained his B.Sc., M.Sc., and Ph.D. from the University of Mysore. His Major research interests include Natural chemistry, Peptide-based polymers, Biosensors, and electrochemical sensors and synthetic organic chemistry. He has authored more than 30 research papers in peer-reviewed international and national journals as well as in conferences, and 04 textbooks. Dr. Mahesh is supervising 06 students for their Ph.D. degree and guided 01 M.Phil. Student. He has delivered several invited talks at international/national conferences. Dr. Mahesh has received several research grants from state and central government agencies. His research group is mainly focused on the development economically viable novel peptide-based polymeric materials for the wound therapy. He is serving as Reviewer for several peer reviewed journals. He is the member of several professional bodies.

Dr. Raghavendra S.C.

Dr. Raghavendra obtained his doctoral degree from Gulbarga University. He is Associate Professor in electrical engineering department at Electrical Engineering Department of Higher Colleges of Technology, UAE. His research interests include RF/Microwave materials, EMI/RFI shielding, high value utilization of fly ash, micro strip antennas, magnetic substrate antennas, composite materials, fly ash, conducting polymers, low frequency characterization and transport properties.

Panel Discussion:

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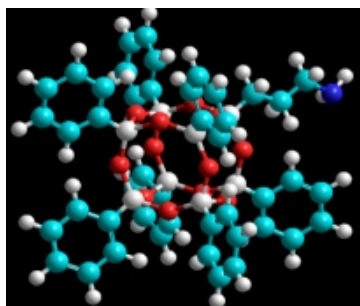
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