B. M. S. COLLEGE OF ENGINEERING, BANGALORE-19

(Autonomous institute, Affiliated to VTU)

DEPARTMENT OF CHEMISTRY

The activity report of the year 2020

1. **Feb 12th 2020**: Dr. M. S. Dharmaprakash, Professor and Dr. S. Manjunatha, Assistant Professor , published research paper titled "Electrochemical Investigation of Caffeine by Cerium Oxide Nanoparticle Modified Carbon Paste Electrode" Journal of the Electrochemical Society, Published on behalf of ECS by IOP Publishing Limited.
2. **Feb 20th 2020:** Dr. Srinidhi R., Assistant Professor, published research paper titled "High-responsivity $(In_{0.26}Ga_{0.74})_2O_3$ UV detectors on sapphire realized by microwave irradiation-assisted deposition" Journal of Alloys and Compounds, published by Elsevier in collaboration with CENSE, IISc.
3. **2nd June 2020**: Dr. Kalyan Raj, Professor and HOD and Mrs. S. Sangeetha, Assistant Professor published a research paper titled "Energy Storage Applications of Cobalt and Manganese Metal–Organic Frameworks" Journal of Inorganic and Organometallic Polymers and Materials, published by Springer.
4. **2nd June 2020**: Dr. Kalyan Raj, Professor and HOD, published a research paper titled "Electrochemical and Spectroscopic Studies of Interaction of Rizatriptan Benzoate with calf thymus DNA" International Journal on Physical Sciences, Vol. 11 Pg. no. 9-13.
5. **5th June 2020**: Dr. Srinidhi R. Asst. Professor participated in international webinar on "How to build a positive attitude and positive state of mind" organized by BMSCE and Nagarjuna College of Engineering and Technology, Bangalore.
6. **19th June 2020:** Dr. Srinidhi R. Asst. Professor participated in webinar on "The world does spin, but not around you" organized by MSys training.
7. **22nd June 2020:** Dr. Kalyan Raj, Professor and HOD, published research paper titled "A study on the effect of PVDF on the structural and transport properties of polyaniline" International Journal of Polymer Analysis and Characterization 10.1080/1023666X.2020.1779431.
8. **29th June 2020:** Dr. Srinidhi R. Asst. Professor has successfully completed Nanotechnology - A Maker's Course an online non-credit course authorized by Duke University, North Carolina State University and The University of North Carolina at Chapel Hill and offered through Coursera.

9. **30th June 2020:** Dr. Srinidhi R. Asst. Professor has successfully completed Nanotechnology and Nanosensors, Part1 an online non-credit course authorized by Technion - Israel Institute of Technology and offered through Coursera.
10. **30th June 2020:** Dr. Srinidhi R. Asst. Professor has successfully completed Materials Science: 10 Things Every Engineer Should Know an online non-credit course authorized by University of California, Davis and offered through Coursera.
11. **June 2020:** Dr. G. S. Ananthnag, Assistant Professor, Department of Chemistry published a research paper titled 'Novel acentric D-p-A-p-D nonlinear optical (2E,4E) [dimethylamino)phenyl]-1-(4- penta-2,4-dien-1-one crystal for second factor and third order nonlinear applications' in 'Journal of Chemical Sciences' a web of science indexed journal with impact 1.496 published by Springer. Year: 2020, Vol: 132, Pgs. 1-8.
12. **4-7 August 2020:** Dr. Kalyan Raj, Professor & Head and Research student Arathi K. presented a paper (oral) titled "Efficient Catalytic Reduction of Hazardous Hexavalent Chromium on Cobalt Sulfide Nanoparticles" in Analytical and Environmental Chemistry Section at an 1st International conference on ACCELERATING INNOVATIONS IN MATERIAL SCIENCE AIMS 2020, conducted by B.M.S. Institute of Technology and Management held during August 4-7 2020.
13. **4-7 August 2020:** Dr. K. L. Nagashree, Assistant Professor, Department of Chemistry, was invited to chairperson the online Poster presentation session in the Inorganic and Physical Chemistry Section at an 1st International conference on ACCELERATING INNOVATIONS IN MATERIAL SCIENCE AIMS 2020, conducted by B.M.S. Institute of Technology and Management held during August 4-7 2020.
14. **4-7 August 2020:** Dr. Srinidhi M., Assistant Professor, Department of Chemistry, presented a paper (oral) titled at an 1st International conference on ACCELERATING INNOVATIONS IN MATERIAL SCIENCE AIMS 2020, conducted by B.M.S. Institute of Technology and Management held during August 4-7 2020. Title of the poster is Ni-Substituted ZnO carbonaceous composite prepared by inert-ambient pyrolysis for high-selective SO_2 sensing.
15. Dr. G. S. Ananthnag, Assistant Professor, Department of Chemistry received a certificate of appreciation from 'Applied Organometallic Chemistry' for being a reviewer, a Q1 journal published by John Wiley & Sons.
16. Dr. S. Manjunatha, Assistant Professor, Department of Chemistry has presented a paper titled "ZrO_2 nanoparticle based carbon paste electrode for the Electrochemical investigation of paracetamol" in International Conference on Recent innovation in

Science, Engineering and Technology – ICRISET organized by JEPPIAAR Institute of Technology, during 24.07.2020 – 25.07.2020.

17. **4th September 2020:** Dr. M. S. Dharmaprakash, Professor and Dr. S. Manjunatha, Assistant Professor, published research paper titled "Electrochemical Detection of Paracetamol by Voltammetry Techniques Using Pure Zirconium Oxide Nanoparticle Based Modified Carbon Paste Electrode" Published by Journal of Inorganic and Organometallic Polymers and Materials.
18. **23rd September 2020:** Dr. M. S. Dharmaprakash, Professor and Dr. S. Manjunatha, Assistant Professor, published research paper titled "Electrochemical Detection of Serotonin Using t-ZrO_2 Nanoparticles Modified Carbon Paste Electrode" Published by Journal of the Electrochemical Society.
19. **October 1st 2020:** Dr. Srinidhi R., Assistant Professor, Department of Chemistry, have completed the course from Manchester University through online course of "Introduction to Molecular Spectroscopy"
20. **October 22nd 2020**: Dr. Kalyan Raj, Professor & Head, Department of Chemistry attended as on advisor for the Research Advisory Committee (RAC) meeting of Presidency University
21. **October 27th 2020:** Dr. Kalyan Raj, Professor & Head, Department of Chemistry and Research students Suresha N. & Malini S., published research paper titled "Catalysis and mechanistic study of Ru(III) and Os(VIII) on the oxidation of taurine by BAT in acid and alkaline media: a kinetic modeling" Published by Journal of Taylor & Francis Group, LLC
22. **2-4th November 2020:** Dr. Kalyan Raj, Professor & HOD and Dr. K. L. Nagashree, Asst. Professor Department of Chemistry presented two papers titled "Single -Step Synthesis of NiS Nanoparticles For The Reduction Of p-Nitrophenol " and "Facile synthesis of Cobalt Sulfide nanoparticles for reduction of nitroarenes" in a Virtual International Conference on "Sustainable Energies and Environmental Technologies (V-ICSEET) at REVA University, Bengaluru from 2-4th November 2020.
23. **2-4th November 2020:** Dr. M S Dharmaprakash, Professor and Dr. Manjunatha S Asst. Professor Department of Chemistry presented a paper "Effect Of Gd+3 As A Co-Dopant On The Photoluminescence Emission Of ZrO2:Eu+3 Nanophosphors" in a Virtual International Conference on "Sustainable Energies and Environmental Technologies (V-ICSEET) at REVA University, Bengaluru from 2-4th November 2020.

24. **9-13th November 2020:** Dr. Nagashree K L, Asst. Professor Department of Chemistry, participated in the Five days online Faculty Development Programme on "Recent Trends in Engineering materials, Nano Science and Nano Technology" organized by Department of Science and Humanities of Global Academy of Technology Raja Rajeshwari Nagar, Bengaluru, Karnataka-560098 in Association with Mahatma Gandhi University, Kottayam, Kerala.
25. **9-13th November 2020:** Dr. Srinidhi R Asst. Professor Department of Chemistry participated in the Five days online Faculty Development Programme on "Recent Trends in Engineering materials, Nano Science and Nano Technology" organized by Department of Science and Humanities of Global Academy of Technology Raja Rajeshwari Nagar, Bengaluru, Karnataka-560098 in Association with Mahatma Gandhi University, Kottayam, Kerala.
26. **20-22nd November 2020:** Dr. Srinidhi R Asst. Professor Department of Chemistry has participated in TEQIP-III online workshop on "Active Learning and Digital Pedagogy for Chemical Science and Education" organized at IIT Hyderabad.
27. **21-26th November 2020:** Dr. Kalyan Raj, Professor and HOD, Department of Chemistry participated in a TEQIP-III sponsored Faculty Development Program on "Advances of Corrosion Science and Engineering" organized by Department of Metallurgy Engineering and Materials Science, IIT Indore, from 21st to 26th November 2020.
28. **21-26th November 2020:** Dr. Manjunatha S Asst. Professor Department of Chemistry participated in a TEQIP-III sponsored Faculty Development Program on "Advances of Corrosion Science and Engineering" organized by Department of Metallurgy Engineering and Materials Science, IIT Indore, from 21st to 26th November 2020.
29. **23-27th November 2020:** Dr. M S Dharmaprakash, Professor Department of Chemistry, attended an online Faculty development programme: "ATAL-FDP Technology Innovation Wealth from Waste," during 23-27, November 2020 conducted by the Department of Chemical Engineering, BMSCE, Bengaluru-19.