09/11/2024, 21:55 Member Details

# **Current Status: Under Process**

Member Details

1. Invite Id	6354585614		
2. Name	Suresh Sundaramurthy		
3. Email ID	sureshs@manit.ac.in		
4. Alternate Email			
5. Mobile Number	9244184604		
6. Address	Department of Chemical Engineering Maulana Azad National Institute of Technology Bhopal - 462 003,, Bhopal, MADHYA PRADESH, India		
7. Organization Name	Individual Capicity		
8. Designation			
9. Other Relevant Information			
10. Download Cv Docs	Click Here to download		
11. Organization Authorization Letter	Click Here to download		

# Educational Qualification:

S No	Degree	Institute Name	Passing Year
1	Graduate	Pondicherry Engineering College	2004
2	Post Graduate	Annamalai University	2006
3	Doctorate	Indian Institute of Technology Roorkee	2010

## Applied in following departments:

space in rollowing departments.					
Technical Department Technical Committee					
Textiles Department (TXD)	Physical Methods of Test (1)	Pending			
Textiles Department (TXD)	Jute and Jute Products (3)	Pending			
Textiles Department (TXD)	Wool, Wool Products and Textile Floor Coverings (4)	Pending			
Textiles Department (TXD)	Chemical Methods of Test (5)	Pending			
Textiles Department (TXD)	Textiles Speciality Chemicals and Dyestuffs (7)	Pending			
Textiles Department (TXD)	Handloom and Khadi (8)	Pending			
Textiles Department (TXD)	Man-made Fibres, Cotton and their Products (31)	Pending			
Textiles Department (TXD)	Textiles Protective Clothing (32)	Pending			
	Textiles Department (TXD)  Textiles Department (TXD)	Textiles Department (TXD)  Jute and Jute Products (3)  Textiles Department (TXD)  Wool, Wool Products and Textile Floor Coverings (4)  Textiles Department (TXD)  Chemical Methods of Test (5)  Textiles Department (TXD)  Textiles Department (TXD)  Textiles Department (TXD)  Textiles Department (TXD)  Handloom and Khadi (8)  Textiles Department (TXD)  Man-made Fibres, Cotton and their Products (31)			

09/11/2024, 21:55 Member Details

S No	Technical Department	Technical Committee	Status
9.	Textiles Department (TXD)	Industrial Fabrics (33)	Pending

## **CURRICULUM VITAE**

# SURESH SUNDARAMURTHY, PhD (SURESH S.)

#### October 2024

Gender: Male

Place of Birth: Puducherry (Pondicherry), India

Address: Associate Professor & Head, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal-462 003, M.P., India

Phone: +91 9244184604, Office: +91 755-4051806

Email: sureshpecchem@gmail.com, sureshchemengg@gmail.com, sureshs@manit.ac.in

Profile website: <a href="https://manit.irins.org/profile/61748">https://manit.irins.org/profile/61748</a>

#### EDUCATION AND WORK EXPERIENCE

PhD (Chemical Engineering), Indian Institute of Technology Roorkee, 2010

M.E (Chemical Engineering), Annamalai University Tamil Nadu, 2006

B.Tech (Chemical Engineering), Pondicherry Engineering College, Pondicherry University, 2004

P.G. Diploma (Industrial Safety) Annamalai University, Tamil Nadu (Distance Course), 2005

Head of the Department, MA-NIT Bhopal (April 2024-Present)

Associate Professor, MA-NIT Bhopal (December 2023-Present)

Convenor & Faculty In-charge: Central Research Facility, MA-NIT Bhopal (2019-Present)

Head of the Department, MA-NIT Bhopal (January 2019-October 2019)

Departmental Coordinator, MA-NIT Bhopal (July 2013-January 2016)

Assistant Professor, MA-NIT Bhopal (August 2010-December 2023)

Postdoctoral Researcher, Centre for Discovery & Innovation, CUNY USA (2017-2018)

Visiting Faculty, Asian Institute of Technology Thailand (January-May 2016)

Visiting Fellow, International Centre for Mater. Sci., JNCASR Bangalore (Dec. 2011-Feb. 2012)

Research Fellow, Indian Institute of Technology Kanpur (February-July 2007)

Research Fellow, Pollution Control & Energy Technol., Pondicherry University (June 2006-Jan. 2007)

#### PATENTS, AWARDS, AND HONORS

- 1. **Indian Patent:** Silica-Titanium Dioxide doped Photocatalyst, and a Reactor Vessel for Effluent Treatment. Indian Patent No. 1599/MUM/2015 dated 18/04/2015 and Published on 21/10/2016 in The Patent Office Journal Issue No. 44/2016 (Applicant: MA-NIT Bhopal, Inventor: S. Suresh)
- 2. **Indian Patent:** Pyrolysis system for thermal decomposition of biomass (Inventors: Ajoy Debbarma & Suresh Sundaramurthy; Applicants: Rain Forest Research Institute, Jorhat (Assam) & Maulana Azad National Institute of Technology Bhopal), Design No. 375152-001 dated 25.01.2023.
- 3. **Indian Patent:** Edible coating composition and the method of preparation thereof (Inventors: Surinder Singh, Daijit Kaur, Suresh Sundaramurthy, Raj Kumar, Sushil Kumar Kansal; Applicants: Panjab University, India; and Maulana Azad-National Institute of Technology Bhopal). Application Number-202311010558, Filing Date-16/02/2023. Published; 26/2023 dated 30/06/2023
- Indian Patent: Carbon Doped Silica-Nanostructured Cu/CuO catalyst for plasma conversion of CO<sub>2</sub> to CO. (Applicants: MA-NIT Bhopal & ONGC Energy Centre Trust, New Delhi, Inventors: Suresh Sundaramurthy, Sasikumar Chandrabalan, Jyoti Verma, Komal Singh, Ravi), Patent Application no. 20231101572, Filing Date-9/03/2023
- 5. **Indian Patent:** IoT device for measuring water pollutants Level. Sapana Madan, Suresh Sundaramurthy, T. Kumuthavalli, Meenakshi K, Ashish Kumar Ratha, Anju, Manasi Vyankatesh Ghamande, Jigneshkumar Amathalal Chauhan. Application No. 427239-001. Filing Date-16/08/2024
- 6. Indian Patent: A process to convert Necromass residual biomass to biochar using indigenously

- designed double barrel Pyrolysis device (Inventors: Ajoy Debbarma & S. Suresh)
- 7. **Indian Patent:** Novel plasma reactor for CO conversion. Under review (Applicant: MA-NIT Bhopal & OECT (ONGC Energy Centre) New Delhi, Inventors: S. Suresh and C. Sasikumar), 2022.
- 8. **Indian Patent:** Wastewater treatment and Energy generation through MFC using Nanoelectrodes Under review (Applicant: MA-NIT Bhopal, Inventors: S. Suresh and Samatha Singh), 2022. Under process.
- 9. **Technology synchronized & commercialization in progress:** "Liquid biofertilizer via aminoacid from cowdung and human hair" with Bhopal Municipal Corporation (Nagar Nigam).
- 10. Principal Advisor: WTL-Clean & Renewable Energy Pvt Ltd (USA)
- 11. Fellow Member: Society of Energy Engineers and Managers, India
- 12. **Certified Renewable Energy Professional Preparatory Training:** Association of Energy Engineers (AEE), USA, 2017 (Preliminary)
- 13. **SERB Indo-US Postdoctoral Research Fellowship:** Science and Engineering Research Board (SERB) and Indo-US Science and Technology Forum (IUSSTF), Department of Science and Technology, Government of India, Fulbright House, New Delhi, July 2016.
- 14. Bharat Excellence Award: Friendship Forum, New Delhi, August 2016.
- 15. **Best Poster award:** in the 103<sup>rd</sup> Indian Science Congress, University of Mysore, 3-7<sup>th</sup> January 2016.
- 16. 4th IGCW-2015 award in the Knowledge Community & Academic Research category: Industrial Green Chemistry World (IGCW 2015), organised by Green ChemisTree Foundation, Mumbai, India, December 2015.
- 17. **Short term Visiting Faculty:** Ministry of Human Resource Development, Department of Higher Education, Government of India, August 2015.
- 18. IEI Young Engineers Award: Institute of Engineers, Kolkata, India, August 2015.
- 19. Rashtriya Gaurav Award: India International Friendship Society, New Delhi, 2015.
- 20. **Award of Member:** National Innovation Club by Rashtrapati Bhavan-The President of India, New Delhi, March 2015.
- 21. **Prof R C Singh Memorial Medal:** 28th Indian Engineering Congress, Institution of Engineers India (IEI), 2013.
- 22. **Visiting Research Fellowship**: Jawaharlal Nehru Centre for Advanced Scientific Research, International Centre for Materials Science, Bangalore, Dec. 2011-Feb. 2012.
- 23. Young Scientist Award by Government of Uttarakhand, 2009
- 24. **Junior and Senior Research Fellowship:** Ministry of Human Resource Development (MHRD), Department of Education, Government of India, New Delhi, July 2007-July 2010.
- 25. **Best Fielder in the cricket (sport club):** Association of Chemical Engineering Students, Pondicherry Engineering College, Puducherry, 2004.
- 26. **Best Performer Award:** Association of Chemical Engineering Students, Pondicherry Engineering College, Puducherry, 2003-2004.
- 27. **Winner-up Cricket Team Shield:** Pondicherry Region Zonal Level–Schools Games and Athletics Competitions (IV-Zone), conducted by Education Department, Government of Pondicherry, Puducherry, 1997-98.

## PROJECT FUNDING (RESEARCH<CONSULTANCY<OTHER)

- 1. R&D Project: Treatment of industrial wastewater using sequential batch reactor (SBR) 45 Lacs, MHRD (Grant-Aid-Scheme), 2010-2012.
- 2. R&D Project: Extraction of fibres from raw sisal plants-15.45 Lacs, Handloom and Handicraft Rural Development Department, Government of Madhya Pradesh, 2011-2013.
- 3. R&D Project: Development of Novel separation Processes, MHRD-MANIT Bhopal-50 Lacs, 2011-2012.
- 4. R&D Project: Treatment of industrial wastewater using photocatalysis process, MPCST, MP Govt. 5.45 lacs, 2012-2015.
- 5. R&D Industrial Project: Treatment of brine sludge using combined adsorption-Electro-chemical methods, TEQIP & Grasim Industry, Nagda, Madhya Pradesh, 14.45 lacs, 2012-2015.
- 6. R&D Project: Machining and analysis of various parameters of nanocomposites prepared from industries wastes for various applications, MPCST, MP Govt, India-5 lacs, 2015-2017.

- 7. R&D Project: New carbon-based nanocomposites (biochar) from waste biomass and carbon cloth: Experimental and modelling studies to adsorption of H<sub>2</sub>S, HCHO from air, sensing of H<sub>2</sub>S and ammonia gases, and photo-oxidation/CO<sub>2</sub> reduction. SERB/IUSSTF, DST, 40000USD, 2016-2018.
- 8. R&D Project: Selective Conversion of CO<sub>2</sub> to CO using an Inexpensive Nano-porous carbon doped oxides through plasma/photocatalysis, ONGC Energy Centre, New Delhi-14.86 lacs (2016-2018).
- 9. R&D Industrial Consultancy Project: Adequacy and Performance Assessment of Existing Effluent Treatment Plant, GAIL (India) Limited, Madhya Pradesh-11.80 Lacs (January 2019-June 2019).
- 10. R&D Project: Process optimization indigenously developed catalysts in plasma assisted photo-catalytic reactor and regeneration of catalysts, ONGC Energy Centre, New Delhi-10.6375 Lacs (2019-2021).
- 11. R&D Project: Development of process and technology for value added products from segregated biocrude (in collaboration with Central Institute of Agricultural Engineering Bhopal), Ministry of Agriculture. (April 2019 to July-2022). 60 Lacs.
- 12. R&D Industrial Project: Water Quality monitoring and assessment of Central Effluent Treatment Plant (CETP), Indore, Madhya Pradesh-22 Lacs (2021-July 2022).
- 13. R&D Industrial Project: Strategical survey and assessment of air pollution in the non-attainment cities of Madhya Pradesh, India sponsored by M/s Center for Study of science, Technology and Policy, Bangalore-560094, Karnataka. 23.5 Lacs. 2021-2022.
- 14. R&D Project: Development and optimization of bio-char enriched super compost from forest necromass for enhanced soil carbon sequestration, MoES, India- 16.494 lacs collaboration with Rain Forest Research Institute, Jorhat, Assam (2018-May 2023).
- 15. R&D Consultancy Project: Environmental Monitoring of quality of Surface water, Ground water, Soil, Air & Noise around Mahakal Temple Ujjain at regular interval. Ujjain Smart City Limited. 29.4 Lacs. 2022-2023.
- 16. Consultancy work: Chemical analysis of biochar and dental materials. M/s Anant Urja Pvt Ltd, Bhopal. 0.1955 Lacs, 2019.
- 17. Consultancy work: Testing of iron bars, M/s Bansal Industries, Bhopal. 0.59 Lacs. 2023
- 18. Consultancy work: Chemical analysis of TMT Fe500, M/s NTPC Khargon. 0.385 Lacs. 2023
- 19. Consultancy work: Vetting of hydraulic design and drawings of various components. M/s LCC Project Ltd, Gujarat. 14.9624 Lacs. 2023
- 20. Consultancy work: Testing of wood waste to know ratio of carbon and oil. M/s GCM Carbon Pvt. Ltd, Raisen, Madhya Pradesh. 0.3 Lacs. February, 2024
- 21. Consultancy Project: Source Apportionment of PM<sub>2.5</sub> & PM<sub>10</sub> of Jabalpur City for Identification of Major Sources, Jabalpur Municipal Corporation under National Clean Air programme (NCAP) scheme, MoEF &CC, GoI-93.88 Lacs. 2022-2024. **Ongoing**.
- 22. Consultancy Project: Source Apportionment of PM<sub>2.5</sub> & PM<sub>10</sub> of Ujjain City for Identification of Major Sources, M.P. Pollution Control Board under National Clean Air programme (NCAP) scheme, MoEF &CC, GoI-68.73 Lacs. 2023-2025. **Ongoing**.
- 23. R&D Project: Development of Carbon Nanofiber Materials From Cow-Dung/Bio-Sludges for Smart Fabric Textile and Selective CO<sub>2</sub>/H<sub>2</sub> Energy Storage Applications (in collaboration with CSIR-AMPRI Bhopal). NTTM, Government of India. 77 Lacs. 2023-2025. **Ongoing.**
- 24. R&D Project: Identification and treatment study of heavy metals and chlorinated by-products using fish scale morphological changes with sedimentation analysis for Upper Lake of Bhopal. MPCST. 9.22 Lacs. 2023-2024. **Ongoing.**
- 25. R&D Project: Enhanced selective recovery of selenium and tellurium from copper anode slime using secondary mineral waste. 32 Lacs. 2024-2027. Ministry of Mines, Government of India. **Ongoing.**
- 26. R&D Project: Enhance Air Quality through Source Apportionment of PM<sub>2.5</sub> & PM<sub>10</sub> of Dewas City for Identification of Major Sources, Dewas Municipal Corporation under National Clean Air programme (NCAP) scheme, MoEF &CC, GoI-Rs.81,87,725 Lacs. 2024-2026. **Ongoing**.
- 27. R&D Project: Enhance Air Quality through Source Apportionment of PM<sub>2.5</sub> & PM<sub>10</sub> of Sagar City for Identification of Major Sources, Sagar Municipal Corporation under National Clean Air programme (NCAP) scheme, MoEF &CC, GoI-Rs.98.13,225 Lacs. 2024-2026. **Ongoing**.
- 28. R&D Project: Integrating Vastu and Sustainability in Indian Temple Architecture: A Synergy between Ancient Wisdom and Contemporary Modernism. Indian Council of Social Science Research, Govt. of India. Grant No. ICSSR-VB2024-1049. Rs.20,67,600. 2024-2025. **Ongoing**.

- 29. Consultancy Project: Municipal Solid Waste Quantification, Composition and Characterization study at Ujjain. Ujjain Smart City Limited (USCL) under CITIIS 2.0 scheme. Rs. 18,43,750/-. September,2024 Ongoing.
- 30. Consultancy Project: Vetting of sewerage DPR for ward No. 1 to 60 of Gwalior City. Rs.. 17, 70,000/-. October, 2024. **Ongoing.**
- 31. R&D Project: Pilot plant for hydrogen generation from biomass char through steam gasification and its storage by nanocarbon integrated metal hydride composite (in collaboration with Central Institute of Agricultural Engineering Bhopal). Rs. 2.59 Crore. DST. Submitted. 2024
- 32. R&D Project: Synthesis of bio-derived high porous carbon-MOF composite for advanced hydrogen storage applications (in collaboration with Central Institute of Agricultural Engineering Bhopal). MNRE, Government of India. 1.0453 Crores. April, 2024. Submitted.
- 33. R&D Project: Advanced Numerical Modelling and Additive Manufacturing of Acoustic Metamaterials for Aeronautical Noise Reduction. Aeronautics Research & Development Board, DRDO. Submitted, 2024. Total budget: 95.97 Lakhs
- 34. R&D Project: Technical Textiles and Management Centre of Excellence, National Technical Textile Mission (NTTM), Ministry of Textile, Govt. of India. Total budget: 342.788 Lakhs. Submitted, 2024.
- 35. R&D Project: Development of lightweight greenhouse gas sensors for Atmospheric Science studies. ISRO. Rs. 19,75 Lacs. Submitted. August 2024
- 36. R&D Project: Pollution to Solution Integrated Carbon Capture and Utilization in the Cement Industry. Rs. 47,00,000. DST. Submitted.
- 37. R&D Project: Development of high energy Graphene/Borophene based Self-Powered Piezoelectric/Triboelectric Nanogenerator Integrated Energy Storage Devices (in collaboration with CSIR-AMPRI Bhopal). DST, Government of India. Rs.98,25,336/-. July 2024. Submitted.
- 38. R&D Project: Development of process and technological package for effective use of Agro-residues and Municipal Solid waste and with Coal in Thermal Power Plants. Rs.53,67,648/- Submitted to Central Power Research Institute. August 2024.
- 39. R&D Project: Development of a novel solar dryer based on Nano-enhanced Phase Change Material as thermal storage for agricultural-based food applications. Submitted to DST. Rs. 48,35,480/- October 2024.
- 40. R&D Project: Design of Emergent van der Waals Heterostructure for High performance and Flexible Optoelectronic Devices. Submitted to DST. Rs. 1,37,67,962/-October 2024.
- 41. R&D Project: Cost-effective process for energy production and energy saving materials from MSW waste plastic and pine litter. Submitted to NMHS, MoEF&CC. Rs. 137.54 Lacs. October, 2024

## TEACHING AND RESEARCH GUIDANCE

- Chemical Reaction Engineering, Process Dynamic and Control, Bio-energy Engineering, Biochemical Engineering, Bioprocess Engineering, Green Technology, Environment Pollution Control, Process Safety and Disaster Management, Advance Separation Processes.
- Supervisor and co-supervisor for about 250 (B.Tech students + project students); 66 M.Tech scholars and 08 PhD scholars

#### List of Ph.D. Thesis topics:

- 1. Rajesh Babu Katiyar, Optimization of Engineering & Process Parameter for Vermi-composting. Co-Supervisor: Dr. A.K. Sharma
- 2. Kamlu Ram Gota, Study of Photocatalytic degradation of Phenolic Wastewater
- 3. Saraswati Rana, Treatment of Phenolic and Textile wastewater by using Biological and Physicochemical Methods
- 4. Rajani Bharati, Synthesis of Nano-catalysts for Treatment of Petroleum Refinery Wastewater
- 5. Anuj Kumar Verma, Synthesis, characterization and application of fly ash based filler and pigment for paper industry. Co-Supervisor: Dr. Dinesh Mohta
- Anshika Rani, Experimental and Computational investigation of hybrid single slope solar stills. Co-Supervisor: Dr. Anil Kumar
- 7. Samatha Singh, Development of low-cost microbial fuel cell for energy generation from wastewater

- 8. Satyam Mishra, Multicomponent adsorption of nitrate and associate ions from aqueous solution. Co-Supervisor: Dr. MS Chauchan
- 9. Abhishek Mathur, Development of graphene based nanocomposite for environmental application (in progress)
- 10. Rakesh Kumar Chand, Air Pollutions Modelling and their source appointment study in the Ujjain City. Co-Supervisor: Dr. A.K. Sharma (in progress)
- 11. Manoj Kumar Gandwane, Pollution abatement through membrane technology. Co-Supervisor: Dr. V.K. Bulasara (in progress)
- 12. Jyoti Verma, Policy Evaluation and Performance Assessment for Clean and Green Sustainable energy Practices (in progress)

List of completed and Ongoing M.Tech. Thesis:

S.No.	Name of students	Title of thesis	Year of Award	Name of Co-Supervisor	
1.	Piyush Pratap Singh Optimization of 1-2 Propane, diol using Box Behnken Design		2014	Dr C. Sumana, IICT Hyderabad	
2.	Satyendra Singh  Kinetic study of esterification with ethylene glycol & acetic acid in presence of Para toluene sulphonic acid		2014	Dr. K. Yamuna Rani, HCT Hyderabad	
3.	Shashank Tiwari	Tiwari Simulation of postulated methanol pool fire in a nuclear fuel sub-assembly cleaning facility 2015		-	
4.	Goldy Shah	Removal of petroleum hydrocarbon from different oily sludge by various treatment methods	2015	Prof. Amit Dubey	
5.	Mona Sakena	Adsorption of phenol onto waste granular activated carbon from water purifier cartridge:  Batch and Column study	2015	-	
6.	Sanjay Singh	gh Simulation of different type of distillations columns for production of Methy-Tert-Butyl-Ether by using ASPEN Plus software		-	
7.	Anil Kumar	Photodegradation of phenol, catechol and hydroquinone pollutants from aqueous solution	2015	-	
8.	Sharad Suryawanshi	Removal of zinc onto synthesised zeolite from aqueous solution	2015	Prof. A.K. Sharma	
9.	Swati Rawat	Fly ash: A suitable material for warm based technology	2015	Prof. A.K. Sharma	
10.	Shivali Sahota	Biological pre-treatrment of water hyacinth for biogas production	2015	Dr. Khushali Meneria	
11.			2015	Dr. M.K. Pradhan	
12.	Khusboo Kumari	Hybrid anaerobic digestor with MFC	FC 2016 -		
13.	Kuldeep Sahu	Design of RBC for degradation of wastewater	2016	-	
14.	Snigdha Mandal	Design of controller for MFC and Pipeline corrosion system	2016 -		
15.	Deepak Rangare	Synthesis of DMC additives by using carbon based nanocatalyst for fuel application	2016	Prof. Amit Dubey	
16.	Ashwin Kumar	Design of controller for solar dryer	2016	-	

17.	Krishna Kumar P	Modelling of Pyrolysis	2016	Prof. Prashant Baredar	
10 MV F 1		Process for Thermochemical Conversion of Human Hair to Biofuel	2017	D 01 35 "	
18.	M.K. Faheema	Inherent radiant heat exposure protection in a tank farm	2017	Dr. Bharat Modhera	
19.	Neha Maheshwari	Preparation of ceramic membrane based on fly ash for oil-water emulsion separation	2017	Dr. C. Sasikumar	
20.	Kunjan Junghare	Carbon sequestration followed by micro algae via biodiesel production	2017	Prof. Prashant Baredar	
21.	Nikhil Kumar	Selective conversion of CO <sub>2</sub> to CO using an inexpensive nanoporous CeO <sub>2</sub> doped with SiO <sub>2</sub> through thermal/plasma photocatalysis	2017	Dr. C. Sasikumar	
22.	Prashant Srivastava	Treatment of Diary Wastewater through RBC	2018	Prof. A.K. Sharma	
23.	Mayank Raguwanshi	Process optimization of CO <sub>2</sub> conversion through developed indigenously plasma assisted photocatalysts	2019	-	
24.	Niteesh Singh	Removal of fluoride from drinking water by using adsorption process	2019	Prof. Mukul Kulshresth	
25.	Sanjeev Verma	Production of biogas from water hyacinth and parthenium hysterophorus	2019	Prof. Prashant Baredar	
26.	Anoop Meleri	Optimization and process parameters of CO <sub>2</sub> conversion using Plasma assisted photocatalyst system	2020	-	
27.	Preety Kumari	Biosynthesis catalysis for sonocatalytic technology	2020	-	
28.	Sujit Das	Fractional distillate products and Value added chemicals from Biocrude	2020	-	
29.	Saurabh Jain	Adsorption of Fluoride through water hyacinth adsorbents	2020	Prof. Mukul Kulshresth	
30.	Sandeep	Rheology properties of different liquid streams	2020	Dr. H.L. Tiwari	
31.	Kapil Newar	Microreactor with Microbubble mechanism	2021	Dr. Rajeev Parmar	
32.	Anjali Prasad	Adsorptive removal of Hexavalent Chromium by Cupric oxide-impregnated Sugarcane Bagasse	2022 Dr. Sunder Lal Pa		
33.	Archa S Vasanthan	Column Adsorption study of Carbon dioxide using carbon aerogel prepared from waste tissue paper and polyvinyl alcohol	2022	Prof. MS. Chauhan	
34. Haroon Haridas Adsorbent development is a solution for waste mattress disposal: characterisation and performance evaluation for sulphate ion adsorption		2022	Prof. MS. Chauhan		
35.	Nihar	Adsorptive removal of Eriochrome Black T dye using Tin Oxide loaded walnut shell activated carbon	2022	Prof. MS. Chauhan	
36.	Utkash Baranwal	Utilization of brewery spent grain into value added products through ultrasonic assisted extraction technique	2022 Prof.A.K. Sharma		
37.	Sagar Tapdiya	Modelling and Simulation of multiple slope solar dryer	2022	Prof. Prashant Baredar	
38.	Priya Singh	Biochemical characterization of phytochemicals from Eucalyptus and cinnamon plants	2022	Dr. Khushali Meneria	
39.	Kajal Tiwari	Conversion of agrowaste residue into sodium silicate: Green Route towards pollution abatement	2023	Dr. H.S Kaur	

40.	Meenu Singh	Preparation of Nano Scale Activated	2023	Dr. H.S Kaur	
		Corn Based Biosorbent For Efficient Removal of Hydroxychloroquine	2021		
41.	Dr. Aiman Haider	A Comparative evaluate the remineralizing effect of dentifrices on eroded primary teeth enamel by two pediatric liquid medicaments through scanning electron microscope: An invitro study		Dr. Babita Niranjan	
42.	Dr. Priyanka Khadatkar A Comparative evaluation of fluoride release and rechargeability in conventional GIC (Type II), pediatric GIC (Type IX), and Cention-N: An invitro study		2022	Dr. Babita Niranjan	
43.	Dr. Pragya Kumari	Comparative evaluation of microleakage of two different types of restorative materials in primary and permanent posterior teeth: An invitro-study	2022	Dr. Arpana Bansal	
44.	Dr. Jyoti Sarathe	Comparative evaluation of surface hardness and surface roughness of heat polymerized polymethyl methacrylate acrylic resin immersed in different disinfectant solution: An invitrostudy	2022	Dr. G.S. Chandu	
45.	Mohini	Utilization Of Waste Diaper, Paddy Straw And Saw Dust for Oyster Mushroom Cultivation: A Solution Towards Sustainable Development	2023	Dr. H.S Kaur	
46.	Harisahmad	Adsorption of sulphide ion onto activated waste cloth from aqueous solution	2023	Dr. H.S Kaur	
47.	Ayush Singh	Singh Comparison of Different Models for Estimation of Monthly Solar Radiation at Bhopal, M.P. (India) Region		Prof. Prashant Bareda	
48.	Sheetal Mathur	Environmental impact assessment of carbon- based anode for sodium ion battery	t of carbon- 2023 I		
49.	Aditya Kumar	Development of Bentonite based flat ceramic membrane for recovery of spent caustic from industrial green liquor of pulp and paper industry		Prof. MS. Chauhan	
50.	Sumit Sahu	Rick husk ash bricks stabilized with cowdung and fly ash: An eco-friendly alternative to burnt clay bricks	2023 Prof. MS. Cha		
51.	Prakamya Tiwari	Emission inventory and quantification of air pollution load in Indore City	2023 Prof.A.K. Sharm		
52.	Pranjal Parihar	Emission inventory and quantification of air pollution load in Ujjain City	2023	Prof.A.K. Sharma	
53.	Prasoon Lodhi	Emission inventory and calculation of pollution load in Jabalpur City	2023	Prof.A.K. Sharma	
54.	Rachana Devi	v 2 .		Prof.A.K. Sharma	
55.	Saral Nigam	Spatial and temporal variation of NOx and SOx concentration in ambient air of Madhya Pradesh, India			
56.	Nidhi Bhardwaj	Development of nano-PCM materials for thermal application	2023	Prof. M.M. Malik	
57.	Praful Choudhary	Optimizing oyster mushroom cultivation for mitigating food and flora scraps	2024	Dr. H.S Kaur	
58.	Kuldeep Yadav	Extraction of sodium silicate from agro waste used as coagulant	2024	Dr. H.S Kaur	
59.	Shikha Shipra	Utilization of peanut hulls, disposable face masks, and wheat straw as substrate for Oyster Mushroom cultivation: A comparative analysis	2024	Dr. H.S Kaur	

60.	Prashant Sompura	Synthesis and characterization of activated carbon from palash tree barks and activated carbon/metal oxide composite for supercapacitor electrode	2024	Prof. M.M. Malik
61.	Om Prabhu Buddeker	Magnetite doped nanocellulose fiber and pyrolytic carbon based triboelectric nanogenerator	2024	Prof. M.M. Malik
62.	Anchal Mishra	Estimation of Emission inventory and windrose diagram for Jabalpur city	2024	Prof.A.K. Sharma
63.	Mayank Upadhyay	Study of Road dust generation in Ujjain City for air pollution load analysis	2024	Prof.A.K. Sharma

#### DETAILS OF PUBLICATIONS

#### In Brief:

Patent	Book series	Book chapter	Journal	Presentation/Proceedings	Invited Talk
published	07+10	27+04	120+08	77+02	54
02+04					

A selection of recent journal publications, artistic productions, books, including book and report excerpts. See all publications in the database (Profile website: <a href="https://manit.irins.org/profile/61748">https://manit.irins.org/profile/61748</a>)

#### **SELECTED BOOKS/PROCEEDINGS**

- 1. Suresh S, Sundaramoorthy S, "Green Chemical Engineering: An introduction to Catalysis, Kinetics and Chemical processes", *CRC Press, Taylor & Francis Group*, (ISBN: 9781466558830), 1<sup>st</sup> Edition, pp. 1-530, **2015**.
- 2. Suresh S, Keshav A. "Textbook of Separation Processes", *Studium Press (India) Pvt. Ltd* (ISBN: 978-93-80012-32-2), 1-459, **2012**.
- 3. Suresh S., Anil Kumar, Ashish Shukla, Renu Singh, CM Krishna. Biofuels and Bioenergy, Springer Proceedings in Energy, *Springer International*, (ISBN: 978-3-319-47255-3), **2017**, pp 1-197.
- 4. Suresh S, Sudhakar K., "Global Scenario in Environment and Energy", *BS Publisher* (*India*), *Pvt. Ltd*, (ISBN: 978-81-7800-286-6), 1-424, **2013**.
- 5. Suresh S, Shrivastava M, Srivastava E., "Emerging trends in Agriculture, Horticulture and Environment Engineering" *Janparishad press and MANIT Bhopal* (ISBN: 978-93-5196-081-2), 1-302, **2014**.
- Suresh S, Tiwari, H.L., Jaiswal, R.K., "Hydraulics, Water Resources, Coastal and Environmental Engineering", *Excellent Publishing House Pvt. Ltd* (ISBN: 978-93-84935-04-7), 1-1432, Vol I and II, 2014.
- 7. Suresh S, Shrivastava M, Srivastava S., "Environmental Friendly Agriculture & Horticulture in planning of a smart city" *Saksham Publisher Pvt. Ltd* (ISBN: 978-93-5196-081-2), 1-202, **2015.**
- 8. S Singh, Suresh Sundaramurthy, Alex O. Ibhadon, Faisal Khan, S K Kansal, SK Mehta, Energy Materials: A Circular Economy Approach. **CRC Press**, *Taylor & Francis Group* ISBN: 9781003269779), 1-398, **March 2024**
- 9. Suresh S, Sundaramoorthy S, "Green Chemical Engineering: An introduction to Catalysis, Kinetics and Chemical processes", *CRC Press, Taylor & Francis Group*, 2<sup>nd</sup> Edition, pp. 1-530, **2023**. (under review).
- Suresh Sundaramurthy, Sarika Verma, Avanish Kumar Srivastava, Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, SpringerNature, August 2024. Page no. 1-203. ISSN 2524-5384
- 11. Sachin Kumar, Suresh Sundaramurthy, Deepak Kumar, Anuj K. Chandel, Clean energy transition-via-biomass resource utilization: A way to mitigate Climate Change. *SpringerNature*, September 2024. Page no. 1-327. ISSN 1865-3529.

<sup>(</sup>http://scholar.google.co.in/citations?user=WgcujRQAAAAJ) & (Researcher ID: http://www.researcherid.com/rid/F-3102-2012)

- 12. Suresh Sundaramurthy, S.P. Singh, Anuj Kumar Verma, Mohamad Jawaid, Eldon R. Rane, Black Liquor Waste Management in the Pulp and Paper Industry, *SpringerNature* (Accepted), September 2024.
- 13. Suresh Sundaramurthy, Sakthivel Sundaresan, SK. Swain, Industrial Decarbonization and the Energy Transition. *Elsevier*, Accepted, 2024.
- 14. Suresh Sundaramurthy, Sasan Zahmatkesh, Mu. Naushad, Nadeem A Khan, Afzal Husain Khan Bio-composites and Nanomaterials: A Circular Economy Approach. *Elsevier, Accepted.*
- 15. Uttpal Anand, Meththika Vithanage, Suresh Sundaramurthy, Microplastic and Nanoplastic Contaminants: Detection and Management Strategies in Soil and Air. *Elsevier, Accepted 2027.*
- 16. Suresh Sundaramurthy, Arumugam A, Deepak Kumar, SK. Swain, Lignin to Biohydrogen: A Circular Economy and Sustainable Approach to Decarbonization, *John Wiley Science*, Accepted.
- 17. Suresh Sundaramurthy, Anuj Kumar Verma, Arisutha Suresh, Saaskshy Agrawal, Paper Industry Waste Processing: A Circular Economy Approach, *Taylor & Francis Group, Accepted.*
- 18. Sasan Zahmatkesh, Dai-Viet N. Vo, Suresh Sundaramurthy, Mohammad Reza Sarmasti Emami, Plate heat exchanger enhancement techniques: in support of the energy transition and a circular economy. *Elsevier, Accepted.*
- 19. Suresh Sundaramurthy, Jyoti Verma, Moonis Ali Khan, Marta Otero, Byong-Hun Jeon, Synergistic effects of biotechnological processes and carbon trading in hydrocarbon industries. *Elsevier* (Accepted) 2024.
- 20. Bhoomika Yadav, Suresh Sundaramurthy, Smart and microbial attached materials for industrial effluent treatment: An Energy recovery and circular economy approach. **AAP-CRC**, *Taylor & Francis Group* (Accepted), 2024.
- 21. Anuj K Chandel, Suresh Sundaramurthy, Biorefineries in Circular Bioeconomy-Reactor Configurations Analysis. Springer (Accepted), 2024
- 22. Suresh Sundaramurthy, Manoj Kumar Jindal, Clean Energy from Biological Wastewater Treatment: A Circular Economy Approach. Apple Academic Press, **CRC** Press-Taylor & Francis Group, (under review) 2024.
- 23. Suresh Sundaramurthy, Bhoomika Yadav, Kamal Krishna Kar, Sustainable supercapacitors and battery electrode materials from waste-derived for energy and semiconductor sectors: A Circular Economy Approach. **Elsevier** (under review)
- 24. Suresh Sundaramurthy, Bhoomika Yadav, Maulin P Shah, S. Arisutha, Development of sustainable bio-electrochemical system from recyclable renewable wastes: A Circular Economy Approach. *Wiley* (Under Review), 2024
- 25. Suresh Sundaramurthy, Jyoti Verma, Sasan Zahmatkesh, An engineered platform for sustainable biofuels and intermediates from CO<sub>2</sub> and Biomass. *Wiley* (under review).
- 26. Suresh Sundaramurthy, Sarika Verma, Maulin P Shah, Sustainable Technical textile biocomposites for sensors and energy storage: A Circular Economy Approach. *Oxford Press* (under review).
- 27. Suresh Sundaramurthy, Bhoomika Yadav, Smart materials, Synthesis and Applications: The prime framework of Industry 5.0 Technologies, **Cambridge Press** (under review).
- 28. Sakthivel Sundaresan, Suresh Sundaramurthy, Anuj Kumar Chandel, Jaya Shankar Tumuluru, Green Energy Frontiers: Electrolyser Technologies, CO<sub>2</sub> Capture, and Fuel Innovations. **ACS** (under review)
- 29. Saaskshy Agrawal, Suresh Sundaramurthy, Maulin P Shah, Trends and strategies in the effluent treatment of pulp and paper industry: The supportive framework for industrial revolution 5.0 Technologies. **Elsevier** (under review)
- 30. Saaskshy Agrawal, Suresh Sundaramurthy, Quality improvement and Management in pulp and paper industry. **AAP-CRC**, *Taylor & Francis Group* (under review).
- 31. Suresh Sundaramurthy, Moonis Ali Khan, Natural and Anthropogenic Solid Wastes A Future Horizon Towards Clean and Sustainable Energy. *RSC* (under review) 2024.
- 32. Suresh Sundaramurthy, Manoj Kumar Jindal, Greywater Management for Rural Areas: A Step Toward Sustainability.
- 33. Suresh Sundaramurthy, YK. Saxena, VC Srivastava, Rajasri Yadavalli, Industrial Pollution Abatement, Safety, Disaster Management and Recycling of Renewable Waste for the Circular Economy. Reference book. **Cambridge Press** (under review).

#### SELECTED BOOK/PROCEEDING CHAPTERS

- 1. **S Suresh**, Srivastava V.C., Mishra I.M. "Oxygen Mass Transfer in Bioreactors" *Elsevier, Comprehensive Biotechnology*, Vol. 2, 947-956 (ISBN: 978-0-08-088504-9), **2011**.
- 2. **S Suresh\*,** Arisutha S, "Membrane Contactor Technology-An introduction and case study of fertilizer industry effluent, Chapter 20. In: Fertilizer Technology I: Synthesis, Studium Press (India) Pvt. Ltd, (ISBN: 978-1-62699-044-9), 1-694, **2015.**
- 3. Shuchi Mittal, Anviti Chaurasiya, Khushboo Kumari, S. Arisutha and **S Suresh\***, Bioconversion of temple/floral wastes using anaerobic digester. Chapter 9. In: Hydrogen Energy and Advanced Materials proceedings, *BS Publications Press (India) Pvt. Ltd*, (ISBN: 978-93-5230-085-3), pp.78-84, **2015**.
- 4. Abhinav Rai, Sachin Koshti, S. Arisutha and **S Suresh\***, Integrated Microbial fuel cell: An Experimental Approach. Chapter 10. *In: Hydrogen Energy and Advanced Materials proceedings*, *BS Publications Press (India) Pvt. Ltd*, (ISBN: 978-93-5230-085-3), pp.85-91, **2015**.
- 5. Suresh S, "Mixing in Shake Flask Bioreactor" In book: Encyclopedia of Industrial Biotechnology: Bioprocess, Bioseparation, and Cell Technology, **John Wiley & Sons, Inc.** (ISBN: 9780470054581), 1-16, **2016**.
- 6. Rajani Bharati, **S Suresh\***, Synthesis of ZnO based nanocatalyst with palash flower powder for degradation of phenol. *In book: Recent Advances in Chemical Engineering*, *Springer Singapore*, (ISBN: 978-981-10-1632-5), pp.177-184, **2016**.
- 7. Sachin Koshti, Abhinav Rai, Arisutha S, **S.Suresh\*.** Optimization of Engineering and Process Parameters for Electro-Chemical Treatment of Textile Wastewater. *In book: Materials, Energy and Environment Engineering*, *Springer* (ISBN: 978-981-10-2674-4), pp. 299-307, **2017**.
- 8. Rajani Bharti, Chandrakant Thakur, **S. Suresh\***, Nanomaterials and food processing wastewater, chapter, In: *In book: Water Purification, Edition: 1, Chapter: 14, Academic Press, Elsevier*, (ISBN: 978-0-128-04300-4) pp. 479-514, **2017**.
- 9. Singh S, **S.Suresh\***, Review on Microbial Fuel Cell Energy Enhancement Using Nano Materials. *In: Biofuels and Bioenergy, Springer Proceedings in Energy*, *Springer International*, (ISBN: 978-3-319-47255-3), **2017**.
- 10. Shivali Sahota, Jaspreet Singh, Pawan Kumar, **S.Suresh\***, Khushhali Pandey, Nano Devices for Contaminant Detection, chapter, In: *Nanotechnology Applications in Food: Flavor, Stability, Nutrition and Safety, Academic Press, Elsevier*, (ISBN: 978-0-128-11943-3), 16th chapter, pp 335-343, **2017**.
- 11. **S.Suresh\***, V.C. Srivastava, S. Sakthivel, and Arisutha S, Kinetic modeling of ethanol production for Substrate-Microbe system. *Book In: Biorefining of Biomass to Biofuels-Opportunities and Perception*, pp 361-372, vol.4, *Springler-Verlag (Germany)*, (ISBN: 978-3-319-67678-4), **2018**.
- 12. **S.Suresh\*,** S. Sakthivel, Selvaraju N, Biodiesel-Technical viability for India. *In: Biorefining of Biomass to Biofuels-Opportunities and Perception*, pp.343-359, vol.4, *Springler-Verlag (Germany)*, (ISBN: 978-3-319-67678-4), **2018**.
- 13. Suresh K, **S.Suresh\***, Application of Fly ash for Oil-in-Water Emulsion Separation, In Book: Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications, **Springer-Nature (Switzerland AG)**, pp 1-28, (ISBN: 978-3-030-11155-7), **2021**.
- 14. Patra S., **S.Suresh\***, Application of different Porous Materials, *In Book: Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications*, *Springer-Nature (Switzerland AG)*, pp 1-17, (ISBN: 978-3-030-11155-7), **2021**.
- 15. Indrajit Pal\*, **S. Suresh\*,** Integrated water management model for Costal Resilient City Planning for Hydro-Meteorological Hazards—a case study of 2015 Chennai Flood (INDIA). *In Book: APRU Sustainable Cities and Landscapes Handbook, Taylor & Francis (Routledge),* U.K, (ISBN: 9781003033530). March 2022, pp1-17.
- 16. S. Suresh, Tabassum-Abbasi, Tasneem Abbasi, N. Ramesh and S. A. Abbasi, Evaluation of a pilot-scale SHEFROL unit set up for rapid, inexpensive and clean-green treatment of greywater. In Book: Advances in Behavioral Based Safety. *Springer-Nature*, 2022 (ISBN: 978-981-16-8270-4), June 2022, pp.211-218.
- 17. Bhagat M, S Singh, S Suresh\*, S. Arisutha S Verma, S K Kansal, Utilization of value-added products from Fly Ash an Industrial Waste, Book Chapter, In: Advanced Materials from Recycled Waste, Elsevier, 2022. ISBN 9780323856058
- 18. Rizwan A, Bhagat M, S Singh, **S Suresh\***, S. Arisutha S Verma, S K Kansal, Agricultural waste: An Exploration of the Innovative Possibilities in the Pursuit of Long-Term Sustainability. Book Chapter, In: Advanced Materials from Recycled Waste, **Elsevier**, 2022. ISBN 9780323856058

- 19. Vijayalakshmi Gosu, Gayatri Rajpur, Uttam Singh, Meena Nemiwal, S. Suresh and Verraboina Subbaramaiah, Photocatalytic Degradation of Organic Pollutants by Using Efficient Nanomaterials. Book 7th Chapter, In: Applications of Advanced Nanomaterials in Water Treatment, CRC Press, Taylor & Francis. 2022. ISBN 9781003252931
- 20. S Singh, **S.Suresh\***, Diksha, Mohd. Aseel Rizwan, Mamta Bhagat, Sarika Verma, S. Arisutha, S.K. Kansal, Cellulosic Bioethanol production from liquid wastes using enzymatic valorisation. In Book: Volume II-Enzymes in Valorization of waste, CRC Press, Taylor & Francis. 2022. ISBN 9781032035093.
- 21. Amish Mishra, Sai Babu Chanda, Ramesh Kumar Nayak, Akshaya Kumar Rout & S. Suresh. Development and Characterization of Nano-SiO<sub>2</sub>-Enhanced Polymer Nanocomposites. In Book: Recent Advances in Materials and Manufacturing Technology. Springer Proceedings of ICAMMT (Lecture Notes in Mechanical Engineering) 2023. ISBN 978-981-99-2920-7
- 22. Satyam Mishra, MS Chauhan, Suresh Sundaramurthy, Vinay Raj, Ankur Vishwakarma, Umare Shubhangi Niranjan, Waste to Wealth: A Philosophy of Zero Waste. In Book: From Waste to Wealth. Springer nature singapore. 2024. ISBN: 9789819975518
- 23. Sriparna Paul, Kamna Chaturvedi, Suresh Sundaramurthy\*, Medha Mili, Harsh Bajpai, Versha Parmar, Ranjeet Bhopche, Mohd. Akram Khan, A K Srivastava, Sarika Verma. A review on radiation shielding materials based on low-strength chemical wastes and nanomaterials. In book: Advanced Radiation Shielding Materials. Elsevier, 1st Edition-January 19, 2024. pp.246-269. ISBN: 9780323953863/9780323953870
- 24. Dhangar, M., Chaturvedi, K., Paul, S., ...Khan, M.A., Suresh **Sundaramurthy\*,** Verma S. Advanced smart textiles for ultraviolet radiation-shielding applications—A review. In book: Advanced Radiation Shielding Materials. Elsevier, 1st Edition-January 19, 2024. pp.323-336. ISBN: 9780323953863/9780323953870
- 25. Ramkishor Anant, Abhishek Tiwari, **Suresh Sundaramurthy\***, Vaibhav Vijay and Gaurav Singh, Synthesis Approaches, Designs and Processing Methods of Two Dimensional Nanomaterials. Wiley Scrivener. 47-82, 2024
- 26. Suresh Sundaramurthy\*, Surinder Singh, Polymer Nanocomposite Films and Coatings for Antimicrobial and Antifungal Applications. In book: Polymer Nanocomposite Films and Coatings: Processes, Fundamental Properties and Applications. Elsevier, January 2024. ISBN: 9780443191404
- 27. Ramkishor Anant, **Suresh Sundaramurthy\***, Surinder Singh, Regulatory, Health, Safety and Environmental Concerns of Polymer Nanocomposite Films and Coatings. In book: Polymer Nanocomposite Films and Coatings: Processes, Fundamental Properties and Applications Elsevier, January 2024. ISBN: 9780443191404
- 28. Nagendranatha Reddy, Divyamshu Surabhi, Matta Chenna Keshava Charan, Reena Pravallika Balia, Hamsini Katla, Kavya Pasirika Pathipaka, Rajasri Yadavalli, Bishwambhar Mishra, Sanjeeb Kumar Mandal, Suresh Sundaramurthy, Aerobic and anaerobic digestion of textile industry wastewater. CRC Press Taylor & Francis Group. October 2024. ISBN: 9781032463582
- 29. S. Sakthivel, R. Prasanna Venkatesh, **Suresh Sundaramurthy\***, Chapter: Sustainable Approach on COVID-19's Plastic Waste and Mitigation Strategy. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 30. Gagan Kant Tripathi, Shikha Katre, Pradeep Khiriya, Priyavand Bundela, Purnima Swarup Khare, Priyanka Dixit & Suresh Sundaramurthy. Highly Efficient Materials from Used PPEs: Perspective and Zero Waste Strategies. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 31. Sriparna Paul, Manish Dhangar, Kamna Chaturvedi, Harsh Bajpai, Naved Siraj, Ranjan Kumar Mohapatra, Suresh Sundaramurthy, S. Arisutha, Bandana Jethy, Bibekananda Naik, Mohd. Akram Khan, A. K. Srivastava & Sarika Verma. State-Of-The-Art Review on Efficacy of Various Disinfection Techniques of the Abandoned PPE Waste. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 32. Gagan Kant Tripathi, Ambikesh Soni, Pratiksha Singh, Priyavand Bundela, Pradeep Khiriya, Purnima Swarup Khare, Priyanka Dixit & Suresh Sundaramurthy Advanced Conversion

- Technologies for PPEs and Their Recent Research Trends. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 33. Abhishek Mathur, **Suresh Sundaramurthy\***, Jhinuk De, Gautam Kumar, Soft Sensors: Design, and Fabrication for Environmental Monitoring. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 34. Tie-zhen Ren, Meng-jie Cui & Suresh Sundaramurthy, Functional Carbon-Based Material as an Efficient Water Splitting Catalysts. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 35. Gagan Kant Tripathi, Vedika Khare, Priyavand Bundela, Pradeep Khiriya, Purnima Swarup Khare, Priyanka Dixit & Suresh Sundaramurthy Impact of PPEs Waste Generation During COVID-19 Pandemic on the Environmental Sustainability and Its Economic Aspects in India and Worldwide. In: Advanced Materials and Conversion Technologies for Personal Protective Equipment Used in the COVID-19 Pandemic, *SpringerNature*, August 2024. ISSN 2524-5384
- 36. Jyoti Verma, Yatish T. Shah, **Suresh Sundaramurthy\***, S. Arisutha. Chapter: Insights into Next-generation Biofuel Strategies and Policy Considerations in India. In: Clean energy transition-via-biomass resource utilization: A way to mitigate Climate Change. *SpringerNature*, September 2024. ISSN 1865-3529.
- 37. S. Suresh\*, S. Arisutha, Kamna Chaturvedi, Sarika Verma, Waste feathers as a resource, its availability and the recent technology in the production of new thermal insulation materials. In: Development of Sustainable Thermal Insulators from Waste Materials: A Circular Economy Approach. Springer, October, 2025. ISBN: 978-981-97-5446-5
- 38. Patel, A., Kushwaha, A.S., Soni, A., Baredar, P., Suresh, S. (2024). Comparative Analysis of Sunshine Models for Estimation of Monthly Global Solar Radiation at Bhopal, India. In: Tatiparti, S.S.V., Seethamraju, S. (eds) Advances in Clean Energy and Sustainability, Volume 1. ICAER 2023. Green Energy and Technology. Springer, Singapore. https://doi.org/10.1007/978-981-97-5415-1 10
- 39. Aiman Haider, Priyanka Khadatkar, **Suresh Sundaramurthy\***, S. Arisutha, Machinable Mica based composites for dental applications. Elsevier, 2022. Under progress.
- 40. Indrajit Pal and **S Suresh\***, Study on industrial preparedness and response (Risk governance) of COVID-19 in Bhopal City, India. In Book: Risk Governance, Response and Resilience in COVID-19 Pandemic. Elsevier, 2021. Under progress.

#### **SELECTED PUBLICATIONS**

- 1. **S Suresh**, VC Srivastava, IM Mishra, Critical analysis of engineering aspects of shaken flask bioreactors. *Crit. Reviews Biotechnol.* 2009; 29(4): 255–278. IF=13.170 & Citation count=56. ISSN: 1549-7801
- S Suresh, VC Srivastava, IM Mishra, Techniques for oxygen transfer measurement in bioreactors: a review J. Chem. Technol. Biotechnol. 2009; 84: 1091–1103. IF= 3.174 & Citation count= 114. ISSN: 1097-4660
- 3. **S Suresh**, NS Khan, VC Srivastava, IM Mishra, Kinetic Modeling and Sensitivity Analysis of Kinetic Parameters for L-Glutamic Acid Production Using Corynebacterium glutamicum *Int. J. Chem. React. Eng.* 2009; 7 (A89): 1-14. IF=1.510 & Citation count=15. ISSN: 1542-6580
- 4. **S Suresh**, VC Srivastava, IM Mishra, Isotherm, Thermodynamics, Desorption, and Disposal Study for the Adsorption of Catechol and Resorcinol onto Granular Activated Carbon. ACS *J. Chem. Eng. Data.* 2011, 56 (4), 811–818. IF= 2.694 & Citation count=70. ISSN: 1520-5134
- 5. **S Suresh\*,** VC Srivastava, IM Mishra, Adsorptive removal of phenol from binary aqueous solution with aniline and 4-nitrophenol by granular activated carbon *Chem. Eng. J.* 2011, 171 (3), 997-1003. IF=13.273 & Citation count=50. ISSN: 1873-3212
- 6. **S Suresh\*,** VC Srivastava, IM Mishra, Adsorption of Hydroquinone in Aqueous Solution by Granulated Activated Carbon ASCE *J. Environ. Eng.* 137(12), 1145-1157, 2011. IF=1.657 & Citation count=18. ISSN: 1943-7870

- 7. **S Suresh**, VC Srivastava, IM Mishra, Study of Catechol and Resorcinol Adsorption Mechanism through Granular Activated Carbon Characterization, pH and Kinetic Study. *Sep. Sci. Technol.* 46(11), 1750 1766, 2011. IF=2.475 & Citation count=32. ISSN: 1520-5754
- 8. **S Suresh\*,** D Ramesh Raja, Treatment of Tannery Wastewater by Various Oxidation and Combined Processes. *Int. J. Environ. Res.* 2011; 5(2), 349-360. IF=2.007 & Citation count=50. ISSN: 2008-2304
- 9. **S Suresh\***, Biodegradation of Hydroquinone Using Sequential Batch Reactor: A Preliminary Study of Industrial Effluent. Res. J. Chem. Environ.15 (2), 2011, 48-56. IF=0.247, Scopus & Citation count=09. ISSN: 0972-0626
- 10. **S Suresh\*,** VC Srivastava, IM Mishra, Adsorptive removal of aniline by granular activated carbon from aqueous solutions with catechol and resorcinol. *Environ. Technol.* 33 (7), 773-781, 2012. IF=3.247 & Citation count=30. ISSN: 1479-487X
- 11. AB Soni, A Keshav, V Verma, **S Suresh**, Removal of Glycolic Acid from aqueous solution using Bagasse Flyash. *Int. J. Environ. Res.* 6(1):297-308, 2012. IF=2.007 & Citation count=16. ISSN: 2008-2304
- 12. S Kamsonlian, **S Suresh\***, V Samanaiah, CB Majumder, S Chand, A Kumar, Bio-sorptive behaviour of mango leaf powder and rice husk for arsenic (III) from aqueous solutions. *Int. J. Environ. Sci. Technol.* 9:565–578, 2012. IF=2.860 & Citation count=37. ISSN: 1735-2630
- 13. S Kamsonlian, **S Suresh\***, CB Majumdar, S. Chand, Biosorption of As(III) from contaminated water onto low cost palm bark biomass. *Int. J. Current Eng. Technol.* 2(1), 153-158, 2012. Citation count=05
- 14. S Kamsonlian, **S Suresh\***, CB Majumdar, S. Chand, Biosorption of Arsenic from Contaminated Water onto Solid *Psidium guajava* Leaf Surface: Equilibrium, Kinetics, Thermodynamics, and Desorption Study. *Bioremed. J.* 16(2):97–112, 2012. IF=1.909 & Citation count=12. ISSN: 1547-6529
- 15. **S Suresh\*,** G Vijayalakshmi, B Rajmohan, V Subbaramaiah, Adsorption of Benzene Vapor onto Activated Biomass from Cashew Nut Shell: Batch and Column Study. *Recent Innovations Chem. Eng.* (Recent Patents Chem. Eng.) 5(2), 116-133, 2012. Scopus. Citation count=10. ISSN: 2405-5212
- 16. A Sharma, **S Suresh\***, A Dubey, Properties and Characteristics of Sisal Fibre Reinforced Composite. J. Adv. Mater. Res., Trans Tech Publishers. Scopus. 85: 322-326, 2012. Citation count=07. ISSN: 1662-8985
- 17. **S Suresh\*,** Adsorption of Benzoic Acid in Aqueous Solution by Bagasse Fly Ash. *J. Inst. Eng. India Ser.* A., 2012, 93, 3, 151-161. Scopus. Citation count=13. ISSN: 2250-2157
- 18. **S Suresh\*,** VC Srivastava, IM Mishra, Adsorption of catechol, resorcinol, hydroquinone and its derivatives: A review. *Int. J. Energy Environ. Engg.* Scopus. 3, 32, 1-19, 2012. IF=2.09 & Citation count=60. ISSN: 2251-6832
- 19. **S Suresh\*,** VC Srivastava, IM Mishra, Removal of 4-nitrophenol from binary aqueous solution with aniline by granular activated carbon using Taguchi's design of experimental methodology. *Theoretical Foundations of Chem. Eng.* 2013, 47, 3, 284–290. IF=0.698 & Citation count=13. ISSN: 1608-3431
- 20. **S Suresh\*,** VC Srivastava, IM Mishra, Studies of Adsorption Kinetics and Regeneration Of Aniline, Phenol, 4-Chlorophenol And 4-Nitrophenol By Activated Carbon. *Chem Ind. Chem. Eng. Q.* 2013, 19 (2) 195–212. IF=0.638 & Citation count=35. ISSN: 2217-7434
- 21. S Gupta, V Uday, AS Raghuwanshi, S Chowkshey, SN Das, **S Suresh\***, Simulation of Blow Molding Using Ansys Polyflow, *APCBEES Procedia* 5, 468-473, 2013. Citation count=12
- 22. K Pramoda, **S Suresh**, HSS Ramakrishna Matte, A Govindaraj, Graphene composites containing chemically bonded metal oxides. *Bulletin of Materials Science*. 2013, 36, 4, 585–590. IF=1.783 & Citation count=03. ISSN: 0973-7669
- 23. S Arisutha, **S Suresh\***, K Sudhakar, A Mittal, DM Deshpande, An energy efficient microcontroller based digital solar weighing machine. *IEEE Xplore*, 2013, 14-16, (ISSN:978-1-4673-6027-2). Citation count=0.
- 24. **S Suresh\*,** S Arisutha, S Sharma, Production of Renewable Natural Gas from Waste Biomass. *J. Inst. Eng. India Ser. E (2013)* 94:55-59. Scopus. Citation count=04. ISSN: 2250-2491
- 25. **S Suresh\***, KR Teja, S Chand, Catalytic wet peroxide oxidation of azo dye (Acid Orange 7) using NaY zeolite from coal fly ash. *Int. J. Environ. Waste Manage.* 2014, 14, 4, 338-357. Scopus. & Citation count=04. ISSN: 1478-9868.
- 26. S Arisutha, **S Suresh\***, P Baredar, DM Deshpande, Evaluation of Methane from Sisal Leaf Residue and Palash Leaf Litter. Journal of The Institution of Engineers (India): Series E. 95(2):105–110, 2014. Scopus. Citation count=02. ISSN: 2250-2491

- 27. HL Tiwari, A Goel, **S Suresh**, S Tiwari, Effect of Inverted T- Shape Splitter Blocks on the Performance of Stilling Basin Models. *Aquatic Procedia* 4 (2015) 1561–1568. Scopus. Citation count=12
- 28. S Arisutha, **S Suresh\***, P Baredar, DM Deshpande, Effects of Thermo-Chemical Pre-Treatment on Bamboo for Biogas Production. *Indian Chemical Engineer*. 1 (2016), 58 79-88. ESCI, Citation count=09. ISSN: 0975-007X
- P Baredar, S Suresh, A Kumar, P Krishnakumar, A Review on Enhancement of Biogas Yield by Pretreatment and addition of Additives. MATEC Web of Conferences 62:06002, 1-5, 62, January 2016. Citation count=01. ISSN: 2261-236X
- 30. P Sahu, S Sahu, R Purohit, Vilas Warudkar, S Arisutha, **S Suresh**, Automation in Biogas Plant for Enhancement of Efficiency and Safety. *Materials Today: Proceedings* (Elsevier) 4 (4), Part D, 5351-5356, 2017. IF=0.94 & Citation count=01. Scopus. ISSN: 2214-7853
- 31. **S.Suresh\***, VC Srivastava, IM Mishra, Adsorption of Aniline, Phenol, 4-chlorophenol and 4-nitrophenol onto Granular Activated carbon: Isotherm, Thermodynamics and Relationship with Solvatochromic Parameters. *Biointerface Research in Applied Chemistry*. Volume 7, Issue 6, 2017, 2263 2276. Scopus. ISSN: 2069-5837
- 32. R Bharati, **S Suresh\***, Biosynthesis of ZnO/SiO<sub>2</sub> nanocatalyst from palash leaves powder for treatment of petrochemical effluent. *Resource-Efficient Technologies (Elsevier)* 3 (4), 2017, 528-541. Citation count=03. Scopus. ISSN:
- 33. S Rana, **S Suresh\***, Comparison of different Coagulants for Reduction of COD from Textile industry wastewater. *Materials Today: Proceedings* (Elsevier). 4(2), Part A, 567-574, 2017. Citation count=01. ISSN: 2214-7853. Scopus.
- 34. R Wallace, **S Suresh**, EH Fini, TJ Bandosz, Efficient Air Desulfurization Catalysts Derived from Pig Manure Liquefaction Char. *Journal of Carbon Research*, C 2017, *3*(4), 37; doi:10.3390/c3040037. Citation count=01. **ESCI.** ISSN:
- 35. **S Suresh**, VC Srivastava, IM Mishra, Equilibrium Modeling of Ternary Adsorption of Phenols onto modified activated carbon. *Theoretical Foundations of Chem. Eng.*, 52(2), 271-285, 2018. IF=0.698 & Citation count=01. ISSN:
- 36. S Rana, RS Rana, **S Suresh**, Studies of biosorption kinetics of phenol by orange peel and tea waste, *Digest Journal of Nanomaterials and Biostructures* 12 (2), 579-588, 2017. Citation count=01. IF=0.963, **ESCI**, **scopus.** ISSN: 1842-3582
- 37. K Kumari, **S Suresh\***, S Arisutha, K Sudhakar, Anaerobic Co-digestion of different wastes in a UASB reactor. *Waste Management* (Elsevier), 77, 545-554, 2018. IF=7.145 & Citation count=16. ISSN: 1879-2456
- 38. **S Suresh**, TJ Bandosz, Removal of Formaldehyde on Carbon-Based Materials: A Review of the Recent Approaches and Findings. *Carbon*, 137, 207-221, 2018. IF=9.594 & Citation count=125. ISSN: 0008-6223
- 39. Verma AK, **S Suresh\***, D Mohta, Economical and Efficient Use of Fly Ash for Newsprint Paper Quality Improvement. *BioResources*, 13(3), 5765-5777, 2018. IF=1.614 & Citation count=0. ISSN: 1930-2126
- 40. Verma AK, **S Suresh\***, D Mohta, Evaluation of Calcium Silicate Filler made from fly ash in Newsprint Industry. *Journal of Engineering and Applied Science*, 13 (12), 4525-4534, 2018. Citation count=0
- 41. Sengupta A, Gupta, A.K, Mishra IM, **S Suresh**, One Dimensional Modelling of Jet diffusion Flame. *Journal of Applied Research and Technology,* (Elsevier), 16, 320-333, 2018. IF=0.756 & Citation count=0. ISSN: 1665-6423
- 42. Rani A, **S Suresh\***, Kumar, A. Different Techniques for separation of brackish water. *Asian Journal of Chemistry*. 31 (1), 9-17, 2019. Scopus. ISSN: 0970-7077
- 43. Rani A, **S Suresh\***, Kumar, A. Review on thermal modeling of solar desalination systems. Research Journal of Chemistry and Environment. 23 (4), 1-14, 2019. Scopus. ISSN: 0972-0626
- 44. **S Suresh,** K. Kante, E H. Fini and T.J. Bandosz, Combination of alkalinity and porosity enhances formaldehyde adsorption on pig manure-derived composite adsorbents, *Microporous & Mesoporous Materials*, 286, 155-162, 2019. IF=5.455 & Citation count=20. ISSN: 1387-1811
- 45. Dawagreh A-K.M.A., M. M. Hailat, Al Khasawneh H.E., **S Suresh** and Titinchi S.J.J. Study of the Presence of Metal Elements in Sea Water in the State of Kuwait, *Ecology, Environment and Conservation*, 25 (2019) S70-S74. Scopus. ISSN: 0971-765X

- 46. Rathore A., Raghuwanshi S., Pal SL, **S Suresh**, Athankar K.K. Explore the Competency of Natural Diluents With Tri-n-Octylamine for the Extractive Separation of Malonic Acid, *Chemical Data Collections*, 22 (2019) 100253, 1-9. Scopus. ISSN: 2405-8300
- 47. Rani A, **S Suresh\***, Kumar, A. Experimental Investigation on Thermal Behavior of Hybrid Single slope solar still. *Journal of Thermal Engineering*. 7, No. 3, pp. 677-689, March, 2021. IF=1.1. ISSN: 2148-7847
- 48. Singh S, **S. Suresh\***, A Novel Technology for energy generation and comparison of power densities for different electrodes using nanotechnology, Rasayan Journal of Chemistry, Vol. 13 No. 1, 672 675, 2020. Scopus. ISSN: 0976-0083
- 49. Singh S, **S. Suresh\***, Graphene as electrode material for the greater power generation in microbial fuel cell. International Journal of Chemical & Petrochemical Technology, 9 (1), (2019) 1-6.
- 50. Singh S, **S. Suresh\***, Microbial fuel cell construction and comparative study using different electrodes materials. Research Journal of Chemistry and Environment. 21(7) (2017), 1-7. Scopus.
- 51. Singh S, S. Suresh (2020), A comparative study on the usage of different nanoparticle-based electrode materials in design, development and construction of low-cost microbial fuel cell for energy generation from wastewater. Journal of Chemical Sciences, IF=1.573.
- 52. Kumar S, **S Suresh\***, Study of photodegradation and wetting behavior on synthesis oxides of tin (stannous and stannic). *Materialia*,14, 2020, 100869, 1-10. Scopus. ISSN:2589-1529
- 53. **S Suresh\***, S. Arisutha, S. Katti, J.Verma. Photocatalytic assisted microwave-based plasma pyrolyser: A solution for COVID-19 related wastes? Journal of the Indian Chemical Society. Vol. 97, No. 12a, December 2020, pp. 1-10, IF=0.284. ISSN: 0019-4522
- 54. Sunny Kumar, Sapana Madan, Nilambar Bariha, **S Suresh\***, Swelling and shrinking behavior of modified starch biopolymer with iron oxide. Starch. Wiley-VCH GmbH, Weinheim, 73, 3-4, 2021. IF=2.74. ISSN: 1521-379X
- 55. **S Suresh\***, V.C. Srivastava, I.M. Mishra, Anubhav Pratap-Singh, Multicomponent Column Optimization of ternary adsorption based removal of phenolic compounds using Modified Activated Carbon. J. Environ. Chem. Eng. 9(1), February 2021, 104843. IF=5.909. ISSN: 2213-3437
- 56. Gupta P, **S Suresh\***, Jay Mant Jha, M Sillanpää, Sonochemical Degradation of Polycyclic Aromatic Hydrocarbons: a review. Environmental Chemistry Letters. 19(3), 2663-2687, 2021. IF=9.027. ISSN: 1610-3653
- 57. Anand U., Bashir Adelodun Alberto Pivato, **S Suresh**, Omkar Indari, Shweta Jakhmola, Hem Chandra Jha, Pawan Kumar Jha, Vijay Tripathi, Francesco Di Mariai, A review of the presence of SARS-CoV-2 RNA in wastewater and airborne particulates and its use for virus spreading surveillance. Environmental Research. Volume 196, 2021, 110929. IF=6.498. ISSN: 1096-0953
- 58. Anand U, F Bianco, S.Suresh, V. Tripathi, A Núñez-Delgado, M Race. SARS-CoV-2 and other viruses in soil: an environmental outlook. Environmental Research. Volume 196, 2021, 111297. IF=6.498. ISSN: 1096-0953
- 59. Richa Mishra, Uttpal Anand, Motilal Srivastava, Sarfraz Ahmad, **S Suresh** and Harsh Bodh Paliwal, Investigation over water quality of rivers Ganga and Yamuna during Kumbh-2019 at Prayagraj, Uttar Pradesh, India. Pollution Research, 41 (1): 114-122 (2022). Scopus. ISSN: 0257-8050
- 60. Anand, U., Li, X., Sunita, K., Lokhandwala, S., Gautam, P., **S Suresh**, Sarma, H., Vellingiri, B., Dey, A., Bontempi, E., Jiang, G., SARS-CoV-2 and other pathogens in municipal wastewater, landfill, leachate, and solid waste: a review about virus surveillance, infectivity, and inactivation. Environmental Research. Volume 203, January 2022, 111839. IF=6.498. ISSN: 1096-0953
- 61. Anoop N., **S Suresh**\*, Jay Mant Jha, C. Sasikumar, D. Parvatalu, Nimmi Singh and Sanjeev S. Katti, Plasma catalysis: a feasible solution for carbon dioxide valorization?. Clean Technologies Environmental Policy. 23, 2789–2811 (2021). IF=3.636. ISSN: 1618-954X
- 62. Verma S, Bajpai, Harsh; **S Suresh\*,** Mili, Medha; Gupta, Ritesh; Shetty, Rohit; Kamble, Sanjay; Khan, Mohd.; Hashmi, S.A.R.; Srivastava, Avanish. Development of Asbestos Free Advance Material For Thermal Insulation Using Marble Waste And Rice Husk Ash. Biomass Conversion and Biorefinery. 13(3): 8985–8998, 2023. IF=4.987. ISSN: 2190-6823
- 63. Aiman Haider, Priyanka Khadatkar, **S. Suresh\*,** S. Arisutha, Sarika Verma. Fluorides-Foundation for healthy teeth: A Dental Perspectives. Journal of Sol-Gel Science and Technology. 100, 375–387, 2021. IF=2.326. ISSN: 1573-4846

- 64. **S Suresh\***, Modi R., A.K. Sharma, S. Arisutha and M Sillanpää, Pre-COVID-19 pandemic: Effects on air quality in the three Cities of India using Fuzzy MCDM Model. Journal of Environmental Health Science and Engineering. 2022, 20(1): 41–51. **IF=3.433**. ISSN: 2052-336X
- 65. Madhusudan Baghel, C. M. Krishna, **S. Suresh\***, Development of Al-SiC composite material from rice husk and its parametric assessment. Materials Research Express. 9, 016518, 2022. Scopus. ISSN: 2053-1591.
- 66. Satyam Mishra, **S Suresh\***, M.S. Chauhan, V. Subbaramaiah, Vijaylakshmi Gosu, Review on Recent Progress in Carbonaceous Materials for the Nitrate Adsorption. ASCE's Journal of Hazardous, Toxic, and Radioactive Waste. July 2022, 26, 3, 1-8. ISSN: 2153-5515
- 67. S.S. Tiwari, Shivkumar Bale, Diptendu Das, Arpit Tripathi, Ankit Tripathi, Pawan Kumar Mishra, Adam Ekielski, **S Suresh\***, Numerical simulations of a postulated methanol pool fire scenario in a ventilated enclosure using a coupled FVM-FEM approach. Processes (MDPI), 2022, 10(5), 918.1-27. IF=3.352, SCIE, Q2. ISSN: 2227-9717
- 68. Aiman Haider, Priyanka Khadatkar, Pragya Kumari, **S. Suresh\*,** S. Arisutha, Double trouble: A review on the ongoing mucomycosis crisis and the dental outlook. International Journal of Dental Science and Innovative Research 4(6):151-158, 2021.
- 69. U.Anand, Anukool Vaishnav, Sushil K. Sharma, Jagajjit Sahu, Sarfaraz Ahmad, Kumari Sunita, S. Suresh, Abhijit Dey, Elza Bontempi, Amit Kishore Singh, Jaroslaw Prockow, Awadhesh Kumar Shukla. Current advances and research prospects for agricultural and industrial uses of microbial strains available in world collections. Science of the Total Environment 842 (2022) 156641. IF=10.753. ISSN: 1879-1026
- 70. Verma S, **S Suresh\***, Medha Mili, Priti Diwedi, Harsh Bajpai, Mohd. Akram Khan, S.A.R Hashmi, SKS Rathore, A.K Srivastava. Future process options for brine sludge management from chloro-alkali industry. International Journal of Environmental Science and Technology. 20, 9291–9310 (2023). **IF=3.519.** ISSN: 1735-1472
- 71. **S. Suresh\*,** Preety Kumari, , Sarika Verma, Jay Mant Jha, S. Arisutha, Piet Lens, Sonocatalytic removal of naphthalene from aqueous solution using ZnO nanoparticles. AQUA-Water Infrastructure, Ecosystems and Society, 71 (9): 1002–1015, 2022. **IF=3.002.** ISSN: 2709-8036.
- 72. Abhijit Dey, Satarupa Dey, Uttpal Anand, Vineet Kumar, Sunil Kumar, Mimosa Ghorai, Arabinda Ghosh, Nishi Kant, **S. Suresh,** Sayan Bhattacharya, Elza Bontempi, Sartaj Ahmad Bhat, Microbial strategies for degradation of microplastics generated from COVID-19 health care waste. Environmental Research. 216 (2023) 114438, 2022. **IF=8.431.** ISSN: 1096-0953
- 73. Elza Bontempi; Uttpal Anand; Bashir Adelodun; Carlo Cabreros; Pankaj Kumar; **S. Suresh**; Abhijit Dey; Florencio Ballesteros. Occurrence, transformation, bioaccumulation, risk and analysis of pharmaceutical and personal care products from wastewater: a review. Environmental Chemistry Letters. 20, 3883–3904, 2022. IF=**13.615**. ISSN: 1610-3653
- 74. Antil, M., Singh, S., Bhagat, M, Vilvas V, **S Suresh\***. Column optimization of adsorption and evaluation of bed parameters-based on removal of arsenite ion using rice husk. Environ Sci Pollut Res. 29, 72279–72293 (2022). IF=5.190. ISSN: 1614-7499
- 75. Anjali Prasad, Jyoti Verma, **S. Suresh**\*, S. Arisutha, Recent advancement in the applicability of SnO<sub>2</sub>-based photo-catalysts for Hydrogen production: Challenges and Solutions. Waste Disposal & Sustainable Energy. 4, 179–192 (2022). IF=. ISSN: 2524-7891
- 76. S Suresh\*, M Sillanpää, F. Banat and RK Vissa, Adsorption of arsenic in aqueous solution onto FeCl<sub>3</sub> impregnated bagasse fly ash. Journal of Environmental Health Science and Engineering, 20, 861–879 (2022). IF=3.433. ISSN: 2052-336X
- 77. **S Suresh \***, Shashi Bala, Sharma A. K., Jyoti Verma, Sasan Zahmatkesh, Arisutha S, Sarika Verma, Mika Sillanpaa, Nagavinothini Ravichandran, Balamurugan Panneerselvam, Performance evaluation of environmentally sustainable precast cement concrete paver blocks using fly ash and polypropylene fibre. Sustainability (MDPI), 2022, 14(23), 1569, IF=3.890, SCIE, Q2. ISSN; 2071-1050
- 78. Sasan Zahmatkesh, Mostafa Hajiaghaei-Keshteli, Awais Bokhari, **Suresh Sundaramurthy**, Balamurugan Panneerselvam, Yousof Rezakhani, Wastewater Treatment with Nanomaterials for the Future: A State-of-the-Art Review. Environmental Research. 216, Part 3, 1 January 2023, 114652. **IF=8.431.** ISSN: 1096-0953
- 79. Ambikesh Soni, Manohar Prasad Bhandari, Gagan Kant Tripathi, Priyavand Bundela, Pradeep Kumar Khiriya, Purnima Swarup Khare, Manoj Kumar Kashyap, Abhijit Dey, Balachandar Vellingiri, **Suresh Sundaramurthy**\*, Arisutha Suresh, José M. Pérez de la Lastra, Nano-biotechnology in tumor and

- cancerous disease: A perspective review. Journal of Cellular and Molecular Medicine (Wiley), 2023; 27: 737-762. IF=5.33. ISSN: 1582-4934
- 80. Uttpal Anand; Tarun Pal; Alessandra Zanoletti; **Suresh Sundaramurthy**; Sunita Varjani; Anushka Upamali Rajapaksha; Damià Barcelo. The spread of the Omicron variant: identification of knowledge gaps, virus diffusion modelling, and future research needs. Environmental Research. 225: 115612, 2023. **IF=8.431.** ISSN: 1096-0953
- 81. Snigdha Mandal; Suresh Sundaramurthy\*; S. Arisutha; Eldon R. Rene; Piet N. L. Lens; Sasan Zahmatkesh; Kassian T.T Amesho; Awais Bokhari. Generation of Bio-Energy After Optimization and Controlling Fluctuations Using Various Sludge Activated Microbial Fuel Cell. Environmental Science and Pollution Research, 2023. IF=5.190. ISSN: 1614-7499
- 82. Krishnakumar, P; Suresh Sundaramurthy\*.; Prashant Baredar; S. Arisutha; Moonis Ali Khan; Gaurav Sharma; Sasan Zahmatkesh; Kassian T.T. Amesho; Mika Sillanpää, Performance Evaluation and Kinetic modelling of pyrolysis process for thermochemical conversion of human hair to fuel, Environmental Science and Pollution Research, 2023, 30, 125104–125116. IF=5.190. ISSN: 1614-7499.
- 83. Abhijit Dey, Pracheta Pal, Uttpal Anand, Suchismita Chatterjee Saha, Suresh Sundaramurthy, Emmanuel Sunday Okeke, Manoj Kumar, Radha, Elza Bontempi, Emidio Albertini, Francesco Di Maria. Novel CRISPR/CAS technology in the realm of algal bloom biomonitoring: Recent trends and future perspectives. Environmental Research. 231, Part-2, 115989, 2023. IF=8.431. ISSN: 1096-0953
- 84. Katiyar, RB, Suresh Sundaramurthy\*, A.K. Sharma, S. Arisutha, Moonis Ali Khan, Mika Sillanpää. Optimization of Engineering and Process Parameters for Vermicomposting. Sustainability, 2023, 15, 8090. IF=1.884. SCIE-Q2. ISSN; 2071-1050
- 85. Israa Othman, Fawzi Banat; Shadi W. Hassan; Cyril Aubry; **Suresh Sundaramurthy**; Mika Sillanpää, Mohammad Abu Haija. Facile Preparation of Magnetic CuFe<sub>2</sub>O<sub>4</sub> on Sepiolite/GO Nanocomposites for Efficient Removal of Pb(II) and Cd(II) from Aqueous Solution. ACS Omega. 2023. 8, 38828–38838. ISSN: 2470-1343. IF=4.1
- 86. Satyam Mishra, **Suresh Sundaramurthy\***, M.S. Chauhan\*, Assessment of Groundwater Trends in Bhopal, Madhya Pradesh: A Statistical Approach. Sustainability, 2023. **15(15)**, **11971**. IF=1.884. SCIE-O2. ISSN; 2071-1050
- 87. Pragya Kumari, Arpana Bansal, **Suresh Sundaramurthy\***, Kartik Choudhary, Babita Niranjan, Prachi Sijeria. A comparative evaluation of microleakage of two different types of restorative materials in primary and permanent teeth: An in vitro study. IOSR Journal of Dental and Medical Sciences. 22 (3) 2023, 30-35. ISSN: 2279-0853
- 88. Katiyar, RB, **Suresh Sundaramurthy\***, A.K. Sharma, S. Arisutha, Anubhav Pratap-Singh, Satyam Mishra, Rashid Ayub, Byong-Hun Jeon, Moonis Ali Khan. Vermicompost: An Eco-Friendly and Cost-Effective Alternative for Sustainable Agriculture. Sustainability, 2023, 15, 14701. IF=1.884. SCIE-Q2. ISSN; 2071-1050
- 89. Priyanka Khadatkar, Babita Niranjan, **Suresh Sundaramurthy\***, A comparative evaluation of fluoride release and rechargeability in conventional GIC (Type II) GIC(TYPE II), pediatric GIC (TYPE IX) and Cention-N-An In vitro study. European Academy of Paediatric Dentistry. In Press. 2023. ISSN: 18186300. IF=2.2
- 90. Nidhi Bhardwaja, M M Malik, **Suresh Sundaramurthy\***, Development of nano-enhanced phase change material from different biomasses for energy application. Journal of Energy Storage. 73, Part A, 1 December 2023, 108837. IF=9.4
- 91. Yadav V, Kumar L, Dixit M, Jangu S, **Suresh Sundaramurthy\*.** Assessment of Water Quality and Heavy Metals Pollution of Shahpura Lake in Bhopal, India. Fish Aqua J. 2023, 14:345.
- 92. Said Essenni, Rachid Billah, Byong-Hun Jeon, **Suresh Sundaramurthy**, Mahfoud Agunaou, Moonis Ali Khan, Template Assisted Hydrothermal Synthesis of Bismuth Vanadate for Rhodamine B Photodegradation. Journal of Molecular Liquids. 2024, 398, 124270. IF=6.
- 93. Chukwuebuka Gabriel Eze, Chidiebele Emmanuel Nwankwo, Satarupa Dey, **Suresh Sundaramurthy.** Emmanuel Sunday Okeke. Food chain microplastics contamination and impact on human health: a review. Environmental Chemistry Letters. In Press, 2024. IF=15.7. ISSN: 1610-3653
- 94. Shantam Warkad, Jay Mant Jha, Iram Malik, Gaurav Saini, Gaurav Dwivedi, **S. Suresh**. Experimentation and CFD Modelling of a single slope solar still, Journal of Enhanced Heat Transfer 31(8):39–61 (2024). IF=**1.5.** ISSN: 1065-5131.

- 95. Satyam Mishra, Mrityunjay Singh Chauhan, S. Chauhan, **Suresh Sundaramurthy\*** Assessing groundwater quality dynamics in Madhya Pradesh: Chemical contaminants and their temporal patterns. Environmental Research. 252, July 2024, 118887, 1-16. IF=8.431. ISSN: 1096-0953
- 96. Anjali Prasad, Ramesh Kumar, Suresh Sundaramurthy, Arisutha Suresh, Moonis Ali Khan, A Review on Assessing Carbon dioxide Conversion Technologies to Valuables. Carbon Capture Science & Technology. 13 (2024) 100287. IF=10.4. ISSN: 2772-6568.
- 97. Mayank Pandey, Kalim Deshmukh, Preetinder Kaur, Ammar Zidan, Süleyman Aşır, Surinder Singh, Naveen Kumar, Prasanta Kumar Sahoo, **Suresh Sundaramurthy**, S. K. Mehta, Deniz Türkmen, Niraj Kumar. Recent Developments, Challenges, and Future Prospects of Mesoporous Nanomaterials and Nanohybrids in Supercapacitor Applications- A Review. Journal of Alloys and Compounds.
- 98. Aiman Haider, **Suresh Sundaramurthy\***, Comparative Evaluation of Remineralizing Effect of Dentifrices on Eroded Primary Teeth Enamel by Two Pediatric Liquid Medicament- A Scanning Electron Microscopic Study. Journal of Indian Society of Pedodontics and Preventive Dentistry
- 99. Aiman Haider, **Suresh Sundaramurthy\***, Pragya Pradhan, S. Arisutha. A cocoa bean husk-based cavity disinfectant: The Dentists outlook. Journal of Environmental Studies and Sciences

#### Other Peer Reviewed Journal

- 1. Suresh S, Kamsonlian S., Majumder C.B., Chand S. Biosorption of Arsenic by Mosambi Citrus limetta) Peel: Equilibrium, Kinetics, Thermodynamics and Desorption Study. Asian J. Chem. 2013,25, 5, 2409-2417. ISSN: 0970-7077. Scopus
- 2. K. R. Gota, Shakti Sanago, Pankaj Sanjay Yewale, S. Suresh\*, Review: Preparation of titanium based catalyst for photocatalytic process. Sylwan, 2014, 158(5), 161-173. ISSN: 0039-7660. Scopus
- 3. Kamsonlian S, S. Suresh, C.B. Majumder and S. Chand, Characterization of banana and orange peels: Biosorption mechanism. International Journal of Science, Technology & Management (IJSTM), Vol. 2 Issue 4, 2011
- 4. Suresh S, Priyanka Gautam, Piyush Pratap Singh, Animesh Mishra Abhishek Singh Shakti Nath Das. Simulation of Reactive Distillation Column. International Journal of ChemTech Research, 5, 2, 1024-1029, 2013.
- 5. Suresh S, Meena Solanki, Shaktinath Das, Kanchan Shukla. Treatment of Real Textile Wastewater Using Coagulation Technology International Journal of ChemTech Research, 5, 2, 610-615, 2013.
- 6. Suresh S, Animesh Mishra, Abhishek Pandey, Prateek Maheshwari, Abhishek Chouhan, Shaktinath Das. Green Cement for Sustainable Concrete Using Marble Dust. International Journal of ChemTech Research 5, 2,616-622, 2013.
- 7. Suresh S, Rajesh Babu Katiyar, A. K. Sharma. Characterization of Municipal Solid Waste Generated by The City of Bhopal, India International Journal of ChemTech Research, 5, 2,623-628, 2013.
- 8. Suresh S, Gota, KR, Preparation and its application of TiO<sub>2</sub>-ZrO<sub>2</sub> and TiO<sub>2</sub>-Fe photocatalyts. Asian J. Chem, 26, 21 (2014), 7087-7101. ISSN: 0970-7077. Scopus
- 9. Suresh S, Gota, KR, Sanago S., Photocatalytic degradation of phenolic compounds using Halogen/H <sub>2</sub>O<sub>2</sub> /TiO<sub>2</sub> Process in Aqueous Solution. Int. J. Current Eng. Technol., (2014) 4, 156-159
- 10. Rana S, Suresh S, Comparison of different coagulants for removal of phenol from aqueous solution, Asian J. Chem, 2015, 27(9):3503-3506. ISSN: 0970-7077. Scopus
- 11. Singh S and Suresh S. A Review on Various Microbial Fuel Cells (MFCs) for Power Generation. Journal of Bioenergy and Biofuels 2(1), 16-35, 2016.
- 12. Sahota S, K.M. Pandey, Suresh S, Arisutha S, Dhruv Singh, Goldy Shah. Biological pretreatment of water hyacinth (*Eichhornia Crassipies*) for biofuel production-A Review, Journal of Bioenergy and Biofuels, 2(2), Jul-Dec, 2016.
- 13. Bharati R, Suresh S, Synthesis of green ZnO/SiO<sub>2</sub> nano-catalyst and its application to reduce acenaphthylene from refinery wastewater. Bioscience Biotechnology Research communications, 2016, 9 (4), 769-775.
- 14. Bharati R, Suresh S, COD reduction from refinery wastewater using SiO<sub>2</sub> photocatalyst synthesized by wheat husk, Bioscience Biotechnology Research Communications, 2017, 10 (1).
- 15. Kumar A, Biswajit Mandal, Prashant Baredar, Suresh S., Effect of Process Parameters on Biogas Production from Floating Drum Digester. Int. Journal of Frontier in Technology, 2014, 1,4-10.

- 16. Suresh S, Diwedi A, Shakti Nath das, Nupur Gupta, Simulation of Reactive Distillation Column for Methyl Tertiary Butyl Ether Synthesis. Int. Journal of Frontiers in Technology 12/2014; 1(2):17-21.
- 17. Saraswati R, Suresh S. A Review on Fixed film reactor for wastewater treatment. Int. Journal of Engineering and Technology, 4(3), 2014), 155-159.
- 18. Saraswati R, Suresh S. Review on modify fixed film reactor for biological treatment, Int Journal of Frontiers in Technology. 3, 2015.
- 19. Suresh S, Chandrasekhar, G. Production of Bioethanol from Cashew Waste. Pet. Conser. Res. Assoc. Oct Dec, 2009: 16-17.
- 20. Suresh S, RB Katiyar, A. K. Sharma. Solid waste management in Bhopal (India) present and future challenges. Ultra-Chemistry Vol. 9(2), 197-214 (2013).
- 21. Bharati R, Suresh S, Green synthesis of ZnO nanocatalyst with palash leaves extract for treatment of petrochemical wastewater. Advanced Materials Proceedings 2018, 3(1), 31-35.
- 22. Singh S, Suresh S, Microbial fuel cell construction and comparative study using different electrodes materials, Research Journal of Chemistry and Environment, 21(7), 1-7, 2017.
- 23. Suresh S, Shankar R, Chand S, Treatment of Distillery wastewater using catalytic wet air oxidation. Journal of Future Engineering & Technology, 6(2), 2011, 36-44.
- 24. Suresh S., R K Tripathi, MNG Rana, Review on treatment of industrial wastewater using sequential batch reactor. International Journal of Science, Technology and Management, 2 (1), 2011, 64-84

#### **DETAILS OF CONFERENCE PAPERS PRESENTED**

- 1. Jyoti Verma, Suresh Sundaramurthy, Electricigens and microbial fuel cells for energy production, 2<sup>nd</sup> International Conference on Green Hydrogen organized by Ministry of New and Renewable Energy (GoI), 11-13<sup>th</sup> September 2024, Bharat Mandapam, New Delhi
- 2. Rakesh Kumar Chand, AK Sharma, Suresh Sundaramurthy, Assessment of the Atmospheric Environment Pollutant in Indian Industrial Sector by Using Inventories. International Water conference for sustainable development Goals. 22nd -23rd March 2024
- 3. S. Shipra, H. S. Kaur & Suresh Sundaramurthy, Promoting Sustainable Agriculture: A Review of Different Substrates for Oyster Mushroom Cultivation and Their Implications. International Water conference for sustainable development Goals. 22nd -23rd March 2024
- 4. Satyam Mishra, MS. Chauhan, Suresh Sundaramurthy, Efficacy of good-waste originated carbonaceous materials for the nitrate and phosphate adsorption-A Review. 3<sup>rd</sup> International conference on New frontiers in chemical, energy and environmental engineering. NIT Warangal. 24-25<sup>th</sup> November 2023.
- 5. Neeraj, Mamta Bhagat, Vishal Vilvas, Surinder Singh Bhinder, S. Suresh, Advanced column study using mathematical and mass transfer of cationic dye using low cost adsorbent. International conference on Chemical Engineering: Enabling Transition towards sustainable future, IIT Roorkee, September 8-10, 2022.
- 6. Haroon H, Satyam Mishra, S. Suresh, MS. Chauhan, Conversion of Waste mattress is a sustainable solution for Air and Water Pollution Abatement? International Conference on Sustainable Technologies in Water Treatment and Desalination (STWTD-2022), Department of Chemical Engineering, National Institute of Technology Calicut, Kerala, India on 28-29th January 2022
- 7. Archa Vasanthan, S. Suresh, Abhishek Mathur, M.S. Chauhan, Is the use of waste tissue papers an answer to the problems of global warming and pollution? International Conference on Sustainable Technologies in Water Treatment and Desalination (STWTD-2022), Department of Chemical Engineering, National Institute of Technology Calicut, Kerala, India on 28-29th January 2022
- 8. Utkarsh Baranwal, S. Suresh, A.K. Sharma, State-of-art review on conversion of brewery solid Waste into value-added products. International Conference on Sustainable Technologies in Water Treatment and Desalination (STWTD-2022), Department of Chemical Engineering, National Institute of Technology Calicut, Kerala, India on 28-29th January 2022
- 9. Nihar, S. Suresh, M.S. Chauhan, Carbon from walnut shell is an effective adsorbent for treatment of Eriochrome Black-T dye?. International Conference on Sustainable Technologies in Water Treatment and Desalination (STWTD-2022), Department of Chemical Engineering, National Institute of Technology Calicut, Kerala, India on 28-29th January 2022
- 10. Anjali Prasad, S. Suresh, Sunder Lal Pal, Review on Metal Oxide catalysts for water splitting applications. SCHEMCON2021, MANIT-IISER Bhopal under IIChE. October 22-23, **2021.**

- 11. Monika, Mamta Bhagat, Vishal Vilvas, Surinder Singh and S. Suresh, Column optimization of adsorption and evaluation of bed parameters-based on removal of arsenite ion using rice husk, International Conference on Recent development on Materials, Reliability, Safety and Environmental Issues, NIT Jalandhar, June 25-27, **2021.**
- 12. Satyam Mishra, S. Suresh, M.S. Chauhan, V. Subbaramaiah, G. Vijaylakshmi, Current State of Knowledge in Carbonaceous Materials adsorption of nitrates: A Review, International Conference on Recent Innovation in Cleaner Technologies. MNIT Jaipur, March 08-09, **2021.**
- 13. S Kumar, S Suresh, Synthesis of two dimensional material Tin oxides (SnO) and its properties, International Conference on Applied Catalysis & Chemical Engineering, April 8-10, **2019**, Dubai, UAE.
- 14. Madan S., N. Bariha, S. Kumar, S. Suresh, MgO particle decorated starch-based biopolymer and its application on coating, International conference on Multi-Disciplinary Approach towards Sustainable Development, 21-22 February **2019**, IIFM, Bhopal.
- 15. S. Madan, N. Bariha, S. Kumar, S. Suresh, Biopolymer composite preparation from starch with iron oxide binder, International conference on Multi-Disciplinary Approach towards Sustainable Development, 21-22 February **2019**, IIFM, Bhopal.
- 16. S Singh, S. Suresh, Electricity generation via Microbial Fuel Cell and synthesizing Polyaniline/Titanium Dioxide nano material for electrodes. 1st International Conference on Sustainable Energy and Environmental Challenges (SEEC 2017), February 26-28th, 2017, Centre of Innovative and Applied Bioprocessing, Mohali, India.
- 17. S Singh, S. Suresh, Production of nano silica particles from rice husk ash for the electrode coatings to improve the efficiency of MFC. 3<sup>rd</sup> International Conference on Bioenergy, Environment and Sustainable Technologies. 23-25<sup>th</sup> January **2017**. Arunai Engineering College, Tamil Nadu, India.
- 18. S Mondal, S. Suresh, S. Arisutha, Performance of Microbial fuel cell and its dynamic parameters control through MATLAB simulation. International Conference on Advances in dynamics, Vibration and Control (ICADVC2016), NIT Durgapur. February 25-27<sup>th</sup> **2016**.
- 19. P Baredar, **S Suresh**, A Kumar, P Krishnakumar, A Review on enhancement of biogas yield by pretreatment and addition of additives. International Conference on Advances on Clean Energy Research. Chateau de Bangkok Hotel, Bangkok, *Thailand*, April 16-18, **2016**.
- 20. S. Suresh, Rajesh N, S. Arisutha, Rajesh Katiyar, AK Sharma, Utilizing Earthworm *Eisenia fetida* in Vermicomposting of Biogas slurry with mixed crop litter and cow dung, 27th Symposium of Malaysian Chemical Engineers, *Taylor's University, Malaysia*, 29-30 Oct, **2014**.
- 21. Utilization of mixed agricultural residues and cow dung into value-added products: A Case study, International Conference on Sustainable Energy & Environmental Protection, Univerza v Mariboru, Maribor-Slovenia, 20-23 August 2013.
- 22. S Gupta, V Uday, AS Raghuwanshi, S Chowkshey, SN Das, **S Suresh\***, Simulation of Blow Molding Using ANSYS Polyflow, 4<sup>th</sup> International Conference on Environmental Science and Development, <u>Dubai, UAE</u>, Jan 19-20, **2013**.
- 23. S Suresh, SP Singh, VC Srivastava, IM Mishra, Adsorption of Aniline, Phenol, 4-Chlorophenol and 4-Nitrophenol Onto Granular Activated Carbon: Isotherm, Thermodynamics and Relationship with Solvatochromic Parameters (749f), 12 AIChE Annual Meeting, Pittsburgh, PA, USA, October 28-November 2, 2012.
- 24. An Overview of Sustainable Power Development of Auroville Village. International Conference on Science, Technology and Social Science 2012. Universiti Teknologi MARA Pahang, <u>Malaysia</u>. Nov 20-22, **2012**.
- 25. S Suresh, S. Arisutha, Preparation of nanocelluloses from sisal plants (*Agave Sisalana*). Winter School on Chemistry and Physics of Materials, jointly organized by International Centre for Materials Science at Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore and Cambridge University, UK Dec 5-10, 2011.
- 26. An overview of micro-algae: carbon sequestration and bio diesel in Indian scenario ICAE 2011 International Conference on Applied Energy, <u>Perugia</u>, <u>Italy</u>. May 16-18, **2011**.
- 27. Catalytic desulphurization for the removal of sulfur compounds using chemical oxidative process. 5th International Conference on Environmental Science and Technology, American Academy of Sciences, Hilton Hotel, <u>Houston, Texas, USA</u>. July 12-16, **2010**.
- 28. S Suresh, VC Srivastava, IM Mishra, Studies on simultaneous adsorption of aniline and catechol onto granular activated carbon. International conference on Chemical Engineering and Biotechnology 'ChemBiotech' 09-10, NUS, Singapore. Jan 28-29, **2010**.

- 29. Shuchi Mittal, Anviti Chaurasiya, Khushboo Kumari, S. Arisutha and **S Suresh\***, Bioconversion of temple/floral wastes using anaerobic digester, 4<sup>th</sup> National convention on hydrogen energy and advanced materials, 28-29<sup>th</sup> November **2015**. Organized by Energy Centre, MANIT Bhopal.
- 30. Khushboo Kumari, S. Arisutha and **S Suresh\***, A Current status of Integrated Anaerobic digester. 11<sup>th</sup> Annual session of students chemical engineering (SCHEMCON-2015),12-13<sup>th</sup> September **2015**, MIT Academy of Engineering, Alandi, Pune, Maharashtra, India
- 31. S Singh, S Suresh Status of Technologies and feedstocks in India for biofuel production. Biofuels and Bioenergy: International conference and Exhibition, 23-25 February, **2016**, Jointly organized by Department of Chemical Engineering, MANIT Bhopal, India and WEENTECH, Coventry, UK.
- 32. A Rani, S Suresh, A Kumar, Review on microbial fuel cell energy enhancement using nanomaterials. Biofuels and Bioenergy: International conference and Exhibition, 23-25 February, **2016**, Jointly organized by Department of Chemical Engineering, MANIT Bhopal, India and WEENTECH, Coventry, UK
- 33. S Singh, S Suresh, Study on sustainable food waste treatment using microbial fuel cell technology. Environmental Friendly Agriculture and Horticulture in Planning of a Smart City", Jointly organized by MANIT, Janparishad and SusTanCon (USA), Bhopal, Dec.12-14, **2015**
- 34. R Bharati, S Suresh, A Review on nanocatalyts from waste for production of biofuel-via-bioenergy. Biofuels and Bioenergy: International conference and Exhibition, 23-25 February, **2016**, Jointly organized by Department of Chemical Engineering, MANIT Bhopal, India and WEENTECH, Coventry, UK.
- 35. R Bharati, S Suresh, Green Synthesis of ZnO nanocatalyst with palash leaves Extract for Acenaphthylene degradation from petrochemical industrial wastewater. International Conference on Materials Science & Technology (*ICMTech*-2016), organised by International Association of Advanced Materials (IAAM), University of Delhi and VBRI Press, 01 04 March, **2016**.
- 36. A Rani, S Suresh, A Kumar, Performance analysis of different techniques for separation of sea water. 68th Annual session of Indian Institute of Chemical Engineers (CHEMCON2015), Organized by Department of Chemical Engineering, IIT Guwahati, 27-30th December 2015.
- 37. R Bharati, S Suresh, Synthesis of ZnO/Palash flower extracts nanocatalyst for phenol degradation. ChEmference 2014, a two day national conference, organized by Department of Chemical Engineering, IIT Hyderabad, 5-6<sup>th</sup> December, **2015**.
- 38. R Bharati, S Suresh, Synthesis of ZnO based nanocatalyst with palash flower powder for degradation of phenol. International conference on Advances in Chemical Engineering (ICACE2015), organized by Department of Chemical Engineering, NITK, 20-22th December 2015.
- 39. Abhinav, Sachin, S Suresh, Optimization of Engineering and Process Parameters for Electro-chemical treatment of textile wastewater. International conference on Advances in Chemical Engineering (ICACE2015), organized by Department of Chemical Engineering, NITK, 20-22th December 2015.
- 40. S Suresh, S Prena, A Review of environmental impact of brine sludge from chloro-alkali Industry. Environmental Friendly Agriculture and Horticulture in Planning of a Smart City", Jointly organized by MANIT, Janparishad and SusTanCon (USA), Bhopal, Dec.12-14, **2015**.
- 41. S Singh, S Suresh, Microbial fuel cells (MFCs): A suitable technology for wastewater treatment, bioenergy and bioproducts" 1st International conference on "Recent Advances in Bioenergy research (ICRABR-2015) organized by SSS-NIRE, Kapurthala, Punjab, India, March 14-17, **2015**.
- 42. S Sahota, S Suresh, K Maneria, Biological pretreatment of Water hyacinth (*Eichhornia crassipes*) for biofuel production. 1st International conference on "Recent Advances in Bio-energy research (ICRABR-2015) organized by SSS-NIRE, Kapurthala, Punjab, India, March 14-17, **2015**.
- 43. S Sahota, S Suresh, K Maneria, Recent advancement in biological pretreatment of lignocellulosic wastes and production of bioenergy. International Conference on Interdisciplinary Research in Engineering, Management, Pharmacy and Science, organized by SIRT, Bhopal during 19-22<sup>nd</sup> February **2015**.
- 44. S Rana, S Suresh, Fixed film reactor for wastewater treatment. 19th International conference on Hydraulics, Water Resources, Coastal and Environmental Engineering, Conference Souvenir, pp.150+xvii, Dec 18-20, **2014**.
- 45. Swati Rawat, S Suresh, AK Sharma, Fly ash: A suitable material for worm based technology. Proceeding of Emerging trends in Agriculture, Horticulture and Environment Engineering" Janparishad and MANIT Bhopal, **2014**, pp. 1-302.

- 46. Sharad R, S Suresh, AK Sharma, A Review on fly ash utilization for NOx/SOx remediation catalyst. Proceeding of Emerging trends in Agriculture, Horticulture and Environment Engineering" Janparishad and MANIT Bhopal, Nov.8-10, **2014**, pp. 1-302.
- 47. S Suresh, KR Gota, S Sanago, Preparation of titanium dioxide nano-particles for photocatalytic process-an overview, International Conference on Advanced Polymeric Materials (ICAPM 2013), Mahatma Gandhi University, Kottayam, Kerala, India,11-13th October 2013.
- 48. S Suresh, A Keshav, Recovery of picolinic acid from aqueous stream by reactive extraction, International conference on Advances in Chemical Engineering, Department of Chemical Engineering, National Institute of Technology Raipur, Chhattisgarh, India April 8-9, **2013**.
- 49. S Suresh, KR Gota, Study of Linear Low Density Polythene And Its Blend Using Mixed Culture Compost. International Conference, APA 2013 on "Polymers on the Frontiers of Science and Technology" under the auspices of European Polymer Federation (EPF) at Punjab University, Chandigarh on February 21-23, 2013.
- 50. J Pandey, S Suresh, Application of surfactants to enhanced oil recovery from Petroleum Industry-A Review, *International Conference On Advances in Chemical Engineering* (ACE–2013), Department of Chemical Engineering, IIT Roorkee, Feb 22 24, **2013.**
- 51. A Sharma, S Suresh, Wear and Frictional Properties of Sisal Fibre Reinforced Composite. *International Conference on Advances in Materials and Processing: Challenges and Opportunities*, Department of Metallurgical & Material Science, IIT Roorkee, Nov, 2-4, **2012.**
- 52. Preparation of green catalyst from industrial waste. *International Conference on Energy-Water-Waste Nexus for Environmental Management* (ICEWWNEM-2012) Department of Energy & Environmental Sciences, Ch. Devilal University, Sirsa, India January 28-30, **2012**.
- 53. S Suresh, Ravikant, Rana, Sequential batch reactor (SBR) treatment for industrial wastewater A review. *International Conference on Recent Advances in Chemical Engineering and Technology* RACET 2011. Cochin, India. March 10-12, **2011**.
- 54. S Suresh, VC Srivastava, IM Mishra, Desorption and disposal study for Aniline-loaded Granular Activated Carbon. *International Conference on Separation Processes* 2009, organized by Department of Chemical Engineering, IT BHU, Varanasi, India. Oct. 20-22, **2009**.
- 55. S Suresh, VC Srivastava, IM Mishra, Adsorption isotherm and thermodynamics for removal of Catechol and Resorcinol onto Granular Activated Carbon. *International Conference on Separation Processes* 2009, organized by Department of Chemical Engineering, IT BHU, Varanasi, India. Oct. 20-22, **2009**.
- 56. S Suresh, VC Srivastava, IM Mishra, Study of various techniques of heat transfer augmentation. Recent Advances in Chemical Engineering (*RACE 2012*), Department of Chemical Technology, Maharashtra University, Jalgaon, 4<sup>th</sup> Feb, 2012.
- 57. S Suresh, K Teja, Synthesis and characterization of Na-Y zeolite from coal fly ash. *CHEMCON-2011* organized by IIChE & M S Ramaiah Institute of Technology, Bangalore, India. Dec.27-30, **2011.**
- 58. S Suresh, C Sasikumar, Effect of attrition milling on slag cement. *All India seminar on Blended Cements in the Sustainable Development of Cement Industry* organized by Chemical Engineering Division Board, The Institution of Engineers (India), Madhya Pradesh State Centre, Nov. 26-27, **2011.**
- 59. S Rana, S Suresh, Production of electricity using low-cost biomass *Techfest*, Indian Institute of Technology, Bombay, India. Jan. 2011.
- 60. S Suresh, P Rajesh, Removal of phenol by electro-coagulation: granular activated carbon as a enhancement factor. 63st Annual Session of CHEMCON-2010 organized by IIChE & Annamalai University, India. Dec.27-30, **2010.**
- 61. S Jain, S Suresh, Various Techniques of Brine Sludge Disposal/Bearing Wastewater. *Biochemcon2010*, Priyadarshini Institute of Engineering and Technology, Nagpur, India. Dec, 22-23, **2010**.
- 62. S Jain, Neeti Divya, S Suresh, Preparation of green catalysis for application of various treatment processes. *Green Chem 2010*, Department of Chemistry, Vikramajit singh sanatan dharam college, Kanpur. Oct 22-23, **2010**.
- 63. S Suresh, VC Srivastava, IM Mishra, Equilibrium modeling of binary adsorption of aniline and catechol onto granular activated carbon. *ChEmference 2010*, Indian Institute of Technology Kanpur. July 13-14, **2010**.
- 64. S Suresh, VC Srivastava, IM Mishra, Application of sequential batch reactor (SBR) for the wastewater treatment: A review. *National Symposium on Reaction Engineering (NSRE-2010)*, National Institute of Technology Raipur, Chhattisgarh, India. Jan 22-23, **2010**.

- 65. S Suresh, VC Srivastava, IM Mishra, Greenhouse gas reduction and carbon trading opportunity in polymer industries. *National Symposium on Reaction Engineering (NSRE-2010)*, National Institute of Technology Raipur, Chhattisgarh, India, Jan 22-23, **2010**.
- 66. S Suresh, VC Srivastava, IM Mishra, Application of polymeric adsorbents for removal of petrochemical compounds from wastewater: a short review *National Symposium on Reaction Engineering (NSRE-2010)*, National Institute of Technology Raipur, Chhattisgarh, India Jan 22-23, **2010**.
- 67. S Suresh, A Keshav, Kinetics of reactive extraction of propionic acid using mechanically agitated contactor. *National Symposium on Reaction Engineering (NSRE-2010)*, National Institute of Technology Raipur, Chhattisgarh, India, Jan 22-23, **2010**.
- 68. Hydro electric energy: Indian scenario. Bangalore. July, 2009.
- 69. S Suresh, VC Srivastava, IM Mishra, Adsorption isotherm and thermodynamics for removal of Aniline onto Granular Activated Carbon. 62<sup>st</sup> Annual Session of CHEMCON-2009 organized by IIChE & Andhra University, India. Dec.27-30, **2009**.
- 70. S Suresh, VC Srivastava, IM Mishra, Kinetic study on removal of Phenol and 4-Chlorophenol by Granular Activated Carbon 62<sup>st</sup> Annual Session of CHEMCON-2009 organized by IIChE & Andhra University, India. Dec.27-30, **2009**.
- 71. S Suresh, VC Srivastava, IM Mishra, Modelling of binary adsorption of Aniline and Phenol onto granular activated carbon 4th Uttarakhand state Council for Science and Technology (UCOST), Pantnagar, Uttarakhand, India. Nov. 10-12, **2009.**
- 72. S Suresh, VC Srivastava, IM Mishra, Kinetic study on removal of catechol (C) and resorcinol (R) by Granular Activated Carbon (GAC), 4<sup>th</sup> Uttarakhand state Council for Science and Technology (UCOST), Pantnagar, Uttarakhand, India. Nov. 10-12, **2009.**
- 73. S Suresh, VC Srivastava, IM Mishra, A review of variables affecting the oxygen transfer rate (OTR)/k<sub>L</sub>a in bioreactors. *AChemE 2009*, organized by Department of Chemical Engineering, Thapar University of Engineering & Technology Patiala, India. Feb 27-28, **2009**.
- 74. S Suresh, VC Srivastava, IM Mishra, Modeling of bioreactor for the production of L-glutamic acid using *Corynebacterium glutamicum* fermentation. 61<sup>st</sup> Annual Session of IIChE & CHEMCON-2008, Chandigarh, India. Dec. 27-30, **2008**.
- 75. S Suresh, VC Srivastava, IM Mishra, Comparison of techniques for the determination of the OTR/k<sub>L</sub>a in bioreactors. 61<sup>st</sup> Annual Session of IIChE & CHEMCON-2008, Chandigarh, India. Dec. 27-30, **2008**.
- 76. S Suresh, VC Srivastava, IM Mishra, Novel (Shaken) Bioreactors: Application to Biotechnology and Chemical Engineering. "Recent Advances in Chemical Engineering Operation and Process in Chemical and Allied industries" on organized by Guru Ghasidas University, Bilaspur, Chhattisgarh, India. Feb.5-6, 2008.

#### CONTINUING EDUCATION PROGRAMS/CONFERENCE ORGANIZED

- 1. Coordinator, GIAN course on "Water-Food-Energy-Environment-Health Nexus for Sustainable Development Goals", October 21-26, 2024, sponsored by MoE, GoI.
- 2. Organizing secretary, Students Symposium on "Recent Advancement in Chemical Technology and Research" (REACTOR 2024), April 6-7, 2024, in association with ChESA & IIChE students chapter, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 3. International Water Conference for Sustainable Development Goals (IWCSDG-2024), March 22-23, 2024. Jointly organized by Department of Civil and Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 4. International Conference on Polymer Materials and Advanced Technology (PMAT-2024), 21th— 23rd February 2025. Jointly organized by Department of Chemical Engineering, Maulana Azad National Institute of Technology & CIPET Bhopal, India.
- 5. STTP on Air Pollution: Monitoring, Modelling and Decision Making. 5th—8th June 2024. Jointly organized by Department of Civil and Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 6. STTP of Hands-on-Training in Polymers and Technology for Teachers and Researchers, 16th–20th November 2024. Jointly organized by Department of Chemical Engineering, Maulana Azad National Institute of Technology & CIPET Bhopal, India.
- 7. Coordinator, S Suresh, Ashish K Pradhan, D Anjali, Vinita Mahindra, Sarika Verma. One day workshop on "In-depth insights of Intellectual Property Rights" under Azadi Ka Amrit Mahotsav

- campaign-celebration of "Rashtriya Boudhik Sampada Mahotsav" organized by MANIT Bhopal and CSIR-AMPRI Bhopal, 29th July 2023.
- 8. Coordinator, GIAN course on "Biocomposite and Innovative materials", January 25-29, 2022, sponsored by MHRD, GoI.
- 9. SCHEMCON2021 on "Globally Advancement in Technology for Environment 2021 (GATE 2021)", October 22-23, 2021, Organized by Department of Chemical Engineering, MANIT & IISER Bhopal, sponsored by IIChE Kolkata.
- 10. National Conference on "Recent Research on Biomass to Biofuels" December 28-30, 2020, Organize by Energy Centre & Department of Chemical Engineering, MANIT Bhopal.
- 11. Coordinator, STTP on Advanced Methods of Materials Characterisation and Surface analysis (AMCSA2021) organized by Chemical Engineering Department, MANIT Bhopal during Feb.27-03 March, 2021.
- 12. Coordinator, International webinar on "CO<sub>2</sub> Reduction Processes for Future Energy Development" (CO<sub>2</sub>-RPFED 2020), 23-24<sup>th</sup> October 2020, sponsored by ONGC-Energy Centre Trust, New Delhi in association with ChESA & IIChE students chapter, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 13. Coordinator, STTP on Challenges and Opportunities in Designing Nanoarchitectonics of Nanoporous Carbon Materials for Industrial Applications (NANCM2020) organized by Materials & Metallurgical Engineering Department, MANIT Bhopal during 16<sup>th</sup> -20<sup>th</sup> September, 2020.
- 14. Organizing secretary, Students Symposium on "Recent Advancement in Chemical Technology and Research" (REACTOR 2020), February 27-29, 2020, sponsored by TEQIP-III in the aegis of Institute Diamond Jubilee Celebration in association with ChESA & IIChE students chapter n, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 15. Coordinator, Short-term training program on "Recent Advancement in Chemical Engineering and Material Sciences (RACEMS 2019)", 25th-29th December, 2019, self-sponsored, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 16. Conference chair & Coordinator: Biofuels and Bioenergy: International conference and Exhibition, 23-25 February, 2016, Jointly organized by Department of Chemical Engineering, MANIT Bhopal, India and WEENTECH, Coventry, UK.
- 17. Organizing Secretary, 3<sup>rd</sup> International Conference on "Environmental Friendly Agriculture and Horticulture in Planning of a Smart City", MANIT, Janparishad and SusTanCon (USA), Bhopal, Dec.12-14, 2015.
- 18. Joint organizing secretary, 4th National Convention on Hydrogen Energy and Advanced Materials, November 28-29, 2015, MANIT Bhopal in association with University of Kerala.
- 19. Coordinator, International Yoga day workshop, June 21, 2015.
- 20. Joint organizing secretary, International Conference on "Hydraulics, Water Resources, Coastal and Environmental Engineering", MANIT Bhopal, Dec.18-20, 2014.
- 21. Organizing secretary, International Conference on "Emerging trends on Agriculture, Horticulture and Environmental Engineering", MANIT and Janparishad, Bhopal, Nov.8-10, 2014.
- 22. Coordinator, Short-term training program on "Green Chemistry and Engineering: Past, Present and Future", 30th July-4th June, 2014, sponsored by TEQIP-II, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 23. Coordinator, Short-term training program on "Bio-energy conversion technologies", 24-28 December, 2013, sponsored by TEQIP-II, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 24. Program convenor, 1st International Conference on "Global Scenario in Environment and Energy" (ICGSE<sup>2</sup> 2013) sponsored by TEQIP-II, MANIT Bhopal, March14-16, 2013.
- 25. Coordinator, Short-term course on "Green Catalysis For Industrial Applications", 07-11 May, 2012, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 26. Coordinator, Two weeks Workshop on "Heat Transfer", Nov' 29-Dec' 10, 2011, Under the National Mission on Education through ICT (MHRD, Govt. of India) & IIT Bombay.
- 27. Coordinator, Short-term course on "Recent Trends in Industrial Pollution and Energy Management", 09-13 May, 2011, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.

#### ANY OTHER RELEVANT ON ACADEMIC STANDING

#### SKILLS AND DEVELOPMENT

- 1. Strong knowledge and research experience in heterogeneous catalysis and electrocatalysis, proficient in preparation, characterization and evaluation of heterogeneous catalysts;
- 2. Strong background in *in-situ* fabrication and characterization of carbon based nano-particles/nanomaterials;
- 3. Laboratory developed: Momentum and Mass Transfer graduate Lab, Mechanical & Advanced Material Technology Operation graduate Lab, Green Catalysis and Process Technology Research Lab, Analytical and Simulation Lab, Biochemical and Bioenergy Engineering Research Lab, Industrial Pollution Abatement Research Lab.
- 4. Familiar with HPLC-MS, TLC, GC-MS, FT-IR, AAS, ICP, UV-vis, XRD, XPS, TPR/TPD, BET, Particle size analyzer, TGA-DSC, SEM-EDAX, TEM, AFM, Raman spectra and CHNS analyzer techniques.
- 5. Excellent abilities in manipulating computers; C++, MATLAB, ASPEN PLUS, MINITAB
- 6. **Internship Certificate Course** on Process Safety and Environment (Air, Water and Solid) Fundamentals and Management, April 10<sup>th</sup>-March 30<sup>th</sup> 2021, Indian Chemical Society, Kolkata.
- 7. **Technical Skill Certificate Course** on International Waste to Energy, October 18th-November 1st 2022, Zhejiang University, China.
- 8. **Certificate course** on Hazardous Waste Management Training, CCNY, CUNY, New York, USA, Office of Environmental Health and Occupational Safety (EHOS), 4th April, 2017.
- 9. **Certificate course** on Laboratory Certificate of Fitness Training, CCNY, CUNY, New York, USA, Office of Environmental Health and Occupational Safety (EHOS), 5th April, 2017.
- 10. **Certificate course** on OSHA Laboratory Safety Standards Training, CCNY, CUNY, New York, USA, Office of Environmental Health and Occupational Safety (EHOS), 21st February 2017.
- 11. **Training of Trainers Program** on Urban Climate Change Adaptation and Resilience, Asian Institute of Technology Thailand organized by USAID Adapt Asia-Pacific and AIT, March 7-11, 2016
- 12. **Certificate course** on Solving challenges of chemistry through analysis, Indian Institute of Technology Kanpur, May 2007 to June 2007.
- 13. **Industrial Training** at Indo-Gulf Fertilizers Ltd., (Aditya Birla group) Jagdishpur (U.P.), India, March-2007 to April 2007.
- 14. **Industrial Training** at SKOL Breweries Pvt Ltd, Puducherry, India, June 2003.
- 15. **Certificate course** on Advanced Diploma in Computer Application, CSC Education, Puducherry, 2001
- 16. Certificate course on Typewriting (Grade Level), Board of Tamil Nadu, India, 1999.
- 17. Excellent interpersonal and communication skills.
- 18. Good abilities in search, tidying up and writing literatures for research including both English and Tamil documents.

#### OTHER PROFESSIONAL EXPERIENCES

- International Expert/Reviewer: 5-Year assessment of research chair for the National Research Foundation: Prof VI Okudoh, (Boipelo Setshedi, University of Cape Town, South Africa), March 2024
- AICTE Expert: scrutiny of documents and to assess infrastructure facilities of the institutions, March 2024-till date Review Editor for
- Associate Editor: Bioenergy and Biofuels-Frontiers in Energy Research, April 2024-till date
- Editorial Board Member: Nature Scientific Reports Journal, September 2024 to till date
- Convenor & Faculty In-charge: Central Research Facility, MANIT Bhopal, 2019-till date.

- Coordinator: IIChE Students Chapter at MANIT Bhopal, Indian Institute of Chemical Engineers (IIChE), Kolkata, 2019-till date.
- Expert/Chairperson in the Chemical Engineering Division: Evaluation of research projects/works at 39th M.P. Young Scientist Congress & Science Festival, February 21-23, 2024 organized by MPCST Bhopal & Hosted by MITS Gwalior.
- Third Party Auditor/Technical Expert: Legacy waste dumpsite remediation, urban administration and development (UAD) Bhopal, December 2023-till date.
- **Technical Expert:** Inspection of scientific machines, Madhya Pradesh Cooperative Dairy Federation Limited (MPCDF), Bhopal, November 2023-till date.
- Expert Member: National Clean Air Programme (NCAP), Ministry of Environment, Forest & Climate Change, Government of India, August 2021-till date.
- Guest Editor of Special issues: "Challenges in managing groundwater resources and human health risk assessment of emerging groundwater contaminations". Springer: Environmental Science and Pollution Research & "Biomass-related Carbon Capture". Elsevier (ScienceDirect): Carbon Capture Science & Technology.
- International Expert/Reviewer: 5-Year assessment of research chair for the National Research Foundation: Prof EWJ Van Steen, (University of Cape Town, South Africa), 2022
- External Member in Board of Studies (BOS) in Petrochemical Department, UIT-RGPV, Bhopal, August 2023
- Minor degree Expert, Petrochemical Department, UIT-RGPV, Bhopal, September 2023
- MANIT Appreciation letter: Recognition of participation in the discussions and contribution in designing the implementation strategy for the recommendations of Prof. Dhande Committee for aiming MANIT Bhopal to achieve Center of Academic Excellence.
- Technical Committee: 8th International Conference on Advances on Clean Energy Research (ICACER 2023), Barcelona, Spain, Technical Co-Sponsor: Universitat Politècnica de Catalunya BarcelonaTech (UPC), Spain, 28-30 April 2023. http://www.icacer.com
- Invited Speaker: 2<sup>nd</sup> International Conference on Renewable and Sustainable energy conference, Crowne Plaza Rome St. Peter's, an IHG Hotel, Rome, Italy March 13-15, 2023. https://www.albedomeetings.com/2023/renewablemeet
- Session Chair: International Conference on Advances in Chemical and Materials Sciences (ACMS-2022), Organized by Indian Institute of Chemical Engineers Kolkata, February 24-26, 2022
- Organizer & Moderator, International invited talk on "Soft Composite materials for biomedical applications". Prof. Vinu Unnikrishnan, West Texas A&M University, USA at 3rd October, 2020
- Organizer & Moderator, Dr. S. Sakthivel, Assistant General Manager, Technology Group, TATA Consulting Engineers Ltd. Mumbai, India on "Process Engineering Methodology" at 31st October, 2020.
- Organizer & Moderator, Academia-Industry Interaction on "Entrepreneurship and start-up, Opportunities in Carbon and Allied Industry" organised by ChESA & IIChE-MANIT Students Chapter, Department of Chemical Engineering, MANIT Bhopal, 9th December 2022.
- Organizer & Moderator, "Felicitation of GATE2023 rankers" organised by ChESA & IIChE-MANIT Students Chapter, Department of Chemical Engineering, MANIT Bhopal, 20th March 2023.
- National Scientific Committee: Third International Conference on Advances in Materials Science 2022 Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar, State-Maharashtra, India, 8-9 December, 2022
- Board of Studies Expert, Sai Sathya University, Sehore, February 2022-till.
- **B.Tech students Examiner:** LNCT Bhopal, May 2022
- PhD thesis Examiner, Anna University, Villupuram Campus, Tamil Nadu, 15th June, 2022.
- PhD thesis Examiner, VFSTR University, Vadlamudi, Andra Pradesh, 2<sup>nd</sup> May, 2022.
- PhD thesis Examiner, Anna University, Trichy Campus, Tamil Nadu, 05th April, 2022.
- PhD thesis Examiner, Anna University, Trichy Campus, Tamil Nadu, 30th August, 2021.

- **PhD thesis Examiner**, VFSTR University, Vadlamudi, Andra Pradesh, 11<sup>th</sup> May, 2021.
- International Expert Member: Annual Evaluation of Academic and Research Report at School of Chemical and Biological Engineering, Seoul National University, South Korea January, 2021.
- Conference session chair & technical advisory committee: International Conference on Recent Innovation in Cleaner Technologies, 8-9th, March 2021, MNIT Jaipur.
- Expert Member: Screening-cum-Technical committee, M.P.PCB Bhopal, February, 2020-till date.
- Advisory Committee: STTP on Process Modelling & Simulation of Micro and Macro (Steady State & Dynamic) Models, 17-22<sup>nd</sup> February 2020 organised by Rajiv Gandhi Proudyogiki Vishwavidyalaya under TEQIP-III, Bhopal.
- **Technical Committee:** 4th International Conference on Advances on Clean Energy Research, April 5-7, 2019, hosted by the University of Coimbra, Portugal.
- Technical Committee & session chair: National Conference on Advances in Chemical Engineering and Science, March 7-8, 2019, hosted by the Department of Chemical Engineering, Indian Institute of Science Education and Research Bhopal.
- **Technical Committee:** 2<sup>nd</sup> International Conference on New Energy and Environment Engineering, May 3-5, 2019, hosted by the Nanyang Technological University, Singapore.
- Expert Member: Selection committee of SRF under sponsored project at CIAE Bhopal, 27<sup>th</sup> May, 2019.
- Catalysts Committee: International Conference on Applied Catalysis & Chemical Engineering, April 8-10, 2019, Dubai, UAE.
- **Technical Committee:** 3<sup>rd</sup> International Conference on Advances on Clean Energy Research, April 6-8, 2018, hosted by the Barcelona, Spain.
- National Technical Committee: Global Conference on Renewable Energy, 19-21st October 2015, organized by Department of Mechanical Engineering, NIT Patna, India and WEENTECH, Coventry, UK.
- International Technical Committee: International Seminar on Renewable Energy and Sustainable Development, 15-17<sup>th</sup> June 2015, organized by College of Science and Technology, Royal University of Bhutan, Bhutan and WEENTECH, Coventry, UK.
- Editor/Associate Editor: Int. J. Frontier Technol., Int. J. Chem. Res., Int. J. Knowledge Eng., Int. J. Frontier Technol., Academic Journals Online. J. Ecol. Environ. Sci., Int. J. Chem. Technol. Res.
- Peer Reviewer: ACS Applied Bio Materials, Chem. Eng. J, Ind. Eng. Chem. Res., J. Hazard. Mater, CLEAN Soil, Air, Water, Can. J. Chem. Eng., Bioremed. J, Braz. J. Chem. Eng., Int. J. Environ. Res., J. Ind. Eng. Chem., Sep. Sci. Tech., Chem. Eng. Commun., J. Integrative Environ. Sci., Exp. Therm. Fluid Sci., J. Inst. Eng. (India): Series E, Adsorp., Int. J. Chem. Res., Environ. Eng. Manage. J., International Energy Journal, Indian Society of Agricultural Engineers, Journal of Materials Science: Materials in Electronics, Regional Energy Resources Information Center, Asian Institute of Technology and other reputed Journals.
- Expert member: Faculty promotion/CAS scheme at Ujjain Engineering College, April 2018.
- PhD thesis Examiner, Anna University, Chennai, Tamil Nadu, September, 2018.
- External Examiner: MTech theses at NIT Raipur, Chhattisgarh, India, June, 2016.
- Board of Studies Expert, Sai Sathya University, Sehore, India. 2015-2017, 2019-2021.
- Student Project Examiner, Indian Institute of Industrial Engineering, Mumbai, India, 2016.
- Technical Committee Member: International Conference on "Environment and Agriculture in the UN Sustainable Development Goals" organized by Janparishad, MANIT, JMBVSS and SusTranCon (USA), and will be held in Bhopal (India) on 17-19<sup>th</sup> December, 2016
- Advisory Committee Member: National Seminar On "Green Techno–economical approaches in development of Smart City: Role of Science & Technology" organized by Department of Chemical Engineering, Indore Institute of Science & Technology, Indore, India, 17–18th November, 2016.

- Advisory Committee Member: National Workshop On "Advances on Waste Valorization: New Horizons for Sustainable Society" organized by Department of Chemical Engineering, Indore Institute of Science & Technology, Indore, India, October 21-22<sup>nd</sup>, 2016.
- Event Judge: ANVESHAN-Solid Waste Management model presentation, Technosearch 2K16 and PURGE in association with Bhopal Municipal Corporation, M.P, India, October 21-22<sup>nd</sup> 2016.
- Advisory Board Member: National Conference on "Bioresources as a key to value added products" organized by Department of Biotechnology, Institute of Engineering & Technology, Mangalayatan University, Aligarh, UP, India, April 29-30th 2016.
- **Technical Committee Member:** International Conference on Advances on Clean Energy Research, Bangkok, Thailand, April 16-18th 2016.
- Editor, International Journal of Frontier in Technology (MANIT Journal), May 2014-Jan 2017.
- Institute level solid waste management committee member, December 2014 onwards. Solid waste management through urban development, national green tribunal.
- Warden, New Hostel (Energy Centre), MANIT Bhopal, July 2012-July 2013.
- Warden, Hostel No.8, MANIT Bhopal, July 2013-July 2014.
- In-charge Head in launching academic programme—M.Tech. (Chemical Process Design), B.Tech syllabus committee member, MANIT, Bhopal, India. (28th senate meeting approved, 2012)
- **BOS Coordinator & Convenor:** Approved senate (36th senate meeting Item S-27.2017-1-5.3) vide official order ((No. Admi/18-19/1224 dated 25/03/2019) changed name of M.Tech course title (M.Tech in Chemical Engineering).
- Annual Report faculty coordinator, Department of Chemical Engineering, MANIT, Bhopal, India, June 2019-June 2021.
- **DRPC Coordinator**, Faculty Convener, Chemical Engineering Association and IIChE students chapter coordinator, Departmental Infrastructure coordinator, Departmental library coordinator, B.Tech project coordinator, Board of Studies (BOS) member, Examination coordinator, Convocation coordinator, Department of Chemical Engineering, MANIT, Bhopal, India.
- CAD laboratory: Computers with all latest facilities designed from R & D project.
- Industrial Pollution Abatement and Mass Transfer laboratories faculty In-charge and its manual framed, Department of Chemical Engineering, MANIT, Bhopal, India.
- Heat transfer laboratory: Experimental conducting in-charge, Department of Chemical Engineering, MANIT, Bhopal, India.
- **Observer** for various National levels Examination JEE, NET (UGC), 21st National Children Science Congress, MPCST Bhopal, India.
- External examiner at Ujjain Engineering College, Ujjain, M.P, MITS, Gwalior, M.P, IPS Academy, Indore, M.P, SAMRAT Ashok Technological Institute, Vidisha, M. P, India, LNCT, Bhopal, Sai Sathya University, Sehore, Indian Institute of Industrial Engineering, Mumbai, India
- **Subject expert** at LNCT, Bhopal, M.P., for faculty recruitment, 2015.
- Technical Committee: International Conference on Green Computing and Technology, Organized by the SIES Graduate School of Technology, September 05 -06, 2013, Navi Mumbai.
- Organizing Committee: Third IFIP International Conference on Bioinformatics, Organized by Department of Mathematics, MANIT Bhopal, September 23 -26, 2013.
- Organizing Committee: 1st International Conference on Mechanical Engineering: Emerging trends for sustainability, Organized by Department of Mechanical Engineering, MANIT Bhopal, January 29-31, 2014.
- Executive Member-Association of Chemical Engineering Students, 2003-2004, Pondicherry Engineering College (PEC), Puducherry, India.

• **Head–Engineering Advising committee**- J-O-U-R-N-E-Y-Multipurpose Social Service & Society Development Centre, 2006-2008, Puducherry, India.

#### PUBLICATION INTENDED FOR PROFESSIONAL COMMUNITIES

- 1. Suresh S, Tiwari, H.L., Mittal, S.K., Desmukh T.S., Sharma, A.K., Jaiswal, R.K., 19th International conference on Hydraulics, Water Resources, Coastal and Environmental Engineering, Conference Souvenir, pp.150+xvii, Dec 18-20, 2014.
- 2. Suresh S, Industrial Pollution Abatement and Mass Transfer laboratories manual framed, Department of Chemical Engineering, MANIT, Bhopal, India.
- 3. Suresh S, Fuel Processing and Technology laboratory manual framed, Department of Chemical Engineering, MANIT, Bhopal, India.
- 4. Suresh S, Modelling and Simulation laboratory manual framed, Department of Chemical Engineering, MANIT, Bhopal, India.

#### PUBLICATION INTENDED FOR THE PUBLIC LINKED TO THE APPLICANT'S RESEARCH

- 1. Suresh S, Abbasi S A, Gajalakshmi S, Nothing fancy, two aquatic plants do the trick, *The Hindu and Dinamalar* (India's National Newspaper), Wednesday, Jun 14, 2006.
- 2. Suresh S, Abbasi S A, Technology for wastewater treatment, Technology Scan-TECH MONITOR, *A National Magazine*, July-Aug, 2006: 9-10.
- 3. Suresh S, Laboratory scale biogas technology, *The Patika* (India's National Newspaper), Saturday, Sep 15, 2012
- 4. Suresh S, Demonstration of Laboratory scale biogas technology, Telecasted on *Doordarshan National TV*, Saturday, Sep 15, 2012.
- 5. Suresh S, Krishnakumar, Baredar, P, About curious on amino acids from hair waste, *The Patika* (India's National Newspaper), Saturday, Feb 14, 2021

#### PUBLIC ARTISTIC AND DESIGN ACTIVITIES

- 1. Rana G, Suresh S, Adsorption column model for water treatment by using activated campus waste, *Student Technosearch*, MANIT Bhopal, India, March 2011.
- 2. Ravi Tripathi, Suresh S. Production of electricity using low-cost biomass, *Techfest*, Indian Institute of Technology, Bombay, India. Jan. 2011.
- 3. Sachin, Rai, Electrochemical treatment model, presented at International conference on on Advances in Chemical Engineering (ICACE2015), organized by Department of Chemical Engineering, NITK, 20-22th December 2015.
- 4. Suresh S, Arisutha S. Modeling and parameter optimization of biogas production from sisal leaf residue, palash leaf litter and bamboo chips, 103rd Indian Science Congress 2016, Indian Science Congress Association and University of Mysore, Mysore from 3-7 January 2016.

#### AUDIOVISUAL MATERIAL, ICT SOFTWARE

Suresh S, Heat Transfer course material presentation taught under the National Mission on Education through ICT (MHRD, Govt. of India) & IIT Bombay, Nov' 29-Dec' 10, 2011.

#### **INVITED TALKS**

- 1. Waste-to-Wealth: Lab models, Products, and Technologies, National Institute of Technical Teachers' Training & Research (NITTTR), Bhopal, 26th September 2024.
- 2. Chemical Engineering Concepts, Operations and Processes. Govt. Polytechnic College, Rajgarh, 25th September 2024
- 3. Chemical Engineering Concepts and Approaches, Petrochemical Engineering UIT-RGPV, Bhopal, 18th April, 2024
- 4. Empowering the Future: Harnessing Novel Catalysts and Clean Technologies for Green Hydrogen Production. International conference on catalysis for clean energy technologies and sustainable development, Punjab University, 5th April 2024
- 5. Advancing Sustainable Materials: Innovations in Energy Production and Storage. National Conference on Biotechnological Advancements for Sustainable Environment. organized by School of Biotechnology and Chemical Engineering, Vel Tech High Tech Dr. Rangarajan Dr.

- Sakunthala Engineering College, Avadi, Chennai, sponsored by Science and Engineering Research Board (SERB), DST New Delhi. 4th April, 2024
- 6. AI/ML-Assisted Technology: Future Vision in Chemical Engineering. eSTC-Future Prospects in Chemical Engineering: AI/ML, Microfluidics, Bioprocess Engineering, Green Technology (FPCE-2024), Chemical Engineering Department, NIT Hamirpur, 3<sup>rd</sup> April 2024.
- 7. Wastewater/Sludge treatment and Resource recovery: Current trends, Challenges and Potential solutions. ATAL-AICTE FDP on Treat Water and Save Environment: Recent Trends and Advancement in Treatment of Effluent Water, IPS Academy, Indore, 7th March, 2024
- 8. Engineering solution for a sustainable world (Vision India 2047-Viksit Bharat), World Engineering Day 2024 celebration at The Institution of Engineering (India), MP State Centre, Bhopal. Date of talk: 4th March 2024
- 9. Indigenous ChemTech innovation (Transformation India 2047): National Science Day-2024, Department of Biosciences & Incubation Centre, Barkatullah University, 28th February 2024
- 10. Energy Transition, Decarbonisation and Environmental Sustainability. ATAL-AICTE FDP on Clean Energy Technologies for Sustainable Development, School of Energy & Environment Management, RGPV Bhopal, 12th February, 2024
- 11. Photocatalysts and Degradation: Central Effluent Treatment Plant. Sustainable solutions to the Industrial water Management, The Institution of Engineering (India), MP State Centre, Bhopal Date of talk: 6th February 2024
- 12. Understanding HPLC/GC-MS analysis methods: Key Principles and Applications. eSTC-Principles of Analytical Instruments for Chemical and Environmental Engineers, Chemical Engineering Department, NIT Hamirpur, 19th January 2024.
- 13. Green Energy Technologies for achieving carbon neutrality, Department of Green Energy Technology, Pondicherry University, 12th January 2024.
- 14. Green Sustainable Materials from waste biomass for different Applications, Department of Mechanical Engineering, VFSTR University, Vadlamudi, Andra Pradesh, 2<sup>nd</sup> January 2024.
- 15. Bio-composite and innovative materials: Recent advancement and Challenges, Department of Mechanical Engineering, VFSTR University, Vadlamudi, Andra Pradesh, 24th April 2023.
- 16. Microbial Fuel Cell for Hydrogen Production, Department of Chemical Engineering, VFSTR University, Vadlamudi, Andra Pradesh, 25th April 2023.
- 17. Green Technologies and Processes for achieving carbon neutrality. National Workshop on "Carbon neutrality for sustainable development: Challenges and Advances" 13th March 2023 organized by IPS Academy Institute of Engineering & Science, Indore sponsored by Science and Engineering Research Board (SERB), DST New Delhi.
- 18. Waste-to-energy conversion technology and process design-via-Industrial Practices. ATAL faculty development Program on "Waste to Wealth: Emerging Trends in Green Energy for Sustainable Development, School of Biotechnology and Chemical Engineering, Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Avadi, Chennai. 10<sup>th</sup> December, 2022.
- 19. Decarbonization and Energy transition: Driving force for Green Hydrogen, 26<sup>th</sup> Regional Conference of Orissa Chemical Society & 7<sup>th</sup> National Conference on "Recent Advancement in Materials Sciences", Department of Chemistry, Veer Surendra Sai University of Technology, Sambalpur, Odisha, 18<sup>th</sup> November, 2022.
- 20. Integrated Water Management Model for Coastal Resilient City for Hydro-Meteorological Hazards, Expert Lecture at AICTE-FDP "Disaster Risk Management (6-11 December, 2021), Anna University, Trichy campus (8/12/2021)
- 21. Successful Journey & Sequence A Research Project Proposal, Petrochemical Engineering UIT-RGPV, Bhopal, 13th November, 2021
- 22. Plasma catalysis: a feasible solution for carbon dioxide valorization? at FDP "Carbon dioxide as a working fluid for future energy requirements (25-29 October, 2021), NIT Andhra Pradesh (28/10/2020)
- 23. Metal oxide based materials for energy application, Short Term Training Programme (Synthesis, Characterization and performance of Advanced materials) from April 26<sup>th</sup>-May 01, 2021, MANIT Bhopal. 13<sup>th</sup> May 2021.

- 24. Biomass energy conversion technology via value added products and chemicals, AICTE sponsored Short Term Training Programme (Energy (Non-Conventional Sources of Energy) from April 26th-May 01, 2021, Beant College of Engineering & Technology, Gurdaspur, Panjab. 27th April 2021.
- 25. Photocatalysts and Degradation, TEQIP sponsored STTP on Inter Disciplinary Aspects of Nanotechnology, School of Nanotechnology-RGPV Bhopal, 23-25 March 2021.
- 26. Technical skills perspectives for Teachers, Scientists and Scholars, AICTE-ISTE sponsored STTP on theme "The Impact of Faculty Development on Teaching Skills and research scholars for Technical Perspectives, Sri Satya Sai University of Technology and Medical Science, Sehore, 10th March 2021.
- 27. Chemical Reaction Engineering Concept in Central Effluent Treatment Plant, AICTE sponsored Short Term Training Programme (Energy and Environmental Pollution) from 01<sup>st</sup> March-6<sup>th</sup> March 2021, Beant College of Engineering & Technology, Gurdaspur, Panjab. 03<sup>rd</sup> March 2021.
- 28. Practical HPLC Methodology and Applications. Expert Lecture at Advanced Methods of Material Characterization and Surface Analysis (AMCSA-2021), MANIT Bhopal 28th Feb 2021.
- 29. Teaching Experimental Design Using a GC-MS Analysis. Expert Lecture at Advanced Methods of Material Characterization and Surface Analysis (AMCSA-2021), MANIT Bhopal 28th Feb 2021.
- 30. Low Cost Catalysis, Kinetics & Reactor Modelling: Discussion towards reduction of CO<sub>2</sub>, H<sub>2</sub>S and CH<sub>2</sub>O. Expert Lecture at International Webinar on "CO<sub>2</sub> Reduction processes for future energy development" (CO<sub>2</sub>-RPFED 2020), MANIT Bhopal (24/10/2020)
- 31. Mesoporous Materials: Concept to Prototype Applications. "Challenges and opportunities in designing Nanoarchitectonics of Nanoporous carbon materials for industrial application (NANCM– 2020)" MME., Dept. (19/09/2020)
- 32. Process Calculation and advances in refinery operations, UIT-RGPV Bhopal on 19th October 2020
- 33. Synthesis of Mesoporous Material and Applications, Expert Lecture at Online FDP on "Nanotechnology and Nanomaterials for Interdisciplinary Applications (NNIA– 2020)" Mech., Dept. (30/07/2020)
- 34. Chemical and Bio-Reaction Engineering: A Perspective, 13th June 2020, hosted by Department of Biotechnology and Chemical Engineering, Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai Tamilnadu.
- 35. Fundamentals and Application of Radiation Heat transfer, 9th December 2019, hosted by the Automotive Engineering Centre, Faculty of Mechanical Engineering, Universiti Malaysia Pahang, Malaysia.
- 36. Chemical Engineering & Technology Industrial Application, 30th November 2019, hosted by School of Engineering of Sri Satya Sai University of Technology & Medical Sciences, Sehore.
- 37. N-Tanks in series model applied for wastewater treatment, National Conference on Advances in Chemical Engineering and Science, March 7-8, 2019, hosted by the Department of Chemical Engineering, Indian Institute of Science Education and Research Bhopal.
- 38. Sludge-to-Energy Technologies, International workshop on Advances in Energy and Environmental Sciences for Sustainable Development, Rabindranath Tagore University, Bhopal, September 27-28, 2018.
- 39. Design of reactors using MATLAB, ASPEN PLUS and CFD TOOLS: A Fundamental View, Modeling using Computational Fluid Dynamics and Matlab (MCFDM-2016)", Department of Chemical Engineering, NIT Raipur, India, 27th June 1st July, 2016.
- 40. Water Treatment by Adsorption and coagulation process, Environmental Engineering and Management, Asian Institute of Technology, Thailand, 19th April 2016.
- 41. Modeling and parameter optimization of biogas production from sial leaf residue, palash leaf litter and bamboo chips, 103<sup>rd</sup> Indian Science Congress 2016, Indian Science Congress Association and University of Mysore, India, 3-7<sup>th</sup> January 2016.
- 42. Methane sensing nanomaterials-From Concept to Prototype. STTP on "Nano-manufacturing and nanotechnology organized by Department of Mechanical Engineering, MANIT Bhopal during 21-25th December 2015.

- 43. Grassroots Renewable Innovation in Green Technologies. National Workshop on Breakthrough Energy Technologies and Challenges for Sustainable Development' 29-30, October 2015, Indore Institute of Science & Technology, Indore, India.
- 44. Process Innovation and Patenting of Photoreactor Technology, Short term course "Role of New Product Development and Intellectual Property Rights in Global Competitiveness", 14-18, October 2015, Department of Mechanical Engineering, MANIT Bhopal.
- 45. Green Technology- A Chemical Engineering Perspectives, 48th Engineers Day, on the theme of "Engineering Challenges for Knowledge Era", IEI (India), MP state centre, 15th Sep' 2015.
- 46. Green Technology for Sustainable Environment", Green Chemistry and Engineering for Sustainable Environment, Institute of Engineering and Science, IPS Academy, Indore M.P., 21-22 August 2014.
- 47. Searching for Suitable Green Technologies to Sustainable Environment, 2<sup>nd</sup> International Conference on Emerging Trends in Agriculture, Horticulture and Environmental Engineering, Noor-Us-Sabah, Bhopal, 15-17 November 2014.
- 48. Utilization of Agricultural Residues (Waste-to-Energy). International conference on Sustainable Agriculture, Horticulture & Environmental Development, a Global Concern, Janparishad, Bhopal, 21-23, Feb. 2014.
- 49. Biochemical Conversion of Agricultural Residues. International conference on Sustainable Agriculture, Horticulture & Environmental Development, a Global Concern, Janparishad, Bhopal, 21-23, Feb. 2014.
- 50. Biomass to biofuel. TEQIP sponsored Short-term training program on "Bio-energy conversion technologies", Department of Chemical Engineering, MANIT, 24-28 December, 2013.
- 51. Separation of ammonia from fertilizer effluent using hollow fibre membrane technology. TEQIP sponsored faculty development program on "Reverse Osmosis Principle and Applications", Department of Chemical Engineering, PEC Puducherry, June 17-21, 2013.
- 52. Modeling the performance of the anaerobic digester systems for biogas energy production. "Two days workshop on Emerging technologies for conversion of biomass to biofuels", Department of Energy, MANIT Bhopal, 22-23, Sep' 2012.
- 53. Treatment of industrial wastewater using sequential batch reactor: A preliminary study, 3rd National Conference on "Urban & Industrial Waste Management 2012, June 29, 2012, Ahmedabad, India
- 54. Catalytic Conversion of Plastic Waste to Fuels, in the short term course on" Green Catalysis For Industrial Applications", 07-11 May, 2012, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 55. Zeolites synthesis and its application as adsorbent, in the short term course on" Green Catalysis For Industrial Applications", 07-11 May, 2012, Department of Chemical Engineering, Maulana Azad National Institute of Technology Bhopal, India.
- 56. Production of bio-diesel by using micro-algae: challenges and Future Prospects. Short term course on Recent trends in Industrial Pollution and Energy Management, MANIT Bhopal, 09-13<sup>th</sup> May, 2011.
- 57. Micro-Algae as a source of Bio diesel: Challenges and Future Prospects. Institution of Engineers (IE), Bhopal, India. Jan. 8-9, 2011.

#### COURSES ATTENDED/TRAINING

- 1. Bureau of Indian Standards (BIS) Annual Convention for MoU Partners for Chemical Engineering Discipline, Dharamshala, H.P. 23-24 Aug 2024.
- 2. CPCB sponsored raining programme on Soil Pollutants Impact Assessment and Remediation of Contaminated Sites" organized at ICAR-Indian Institute of Soil Science, Bhopal, 23-25 May, 2023.
- 3. 91st ACS Colloid & Surface Science Symposium, The City College of New York, Jul 9-12, 2017.
- 4. Seminar on "Nanostructured and Nanocomposite Polymer Films and Membranes" delivered by Prof. Stephen Martin, Virginia Tech, organized by Department of Chemical Engineering, CCNY, CUNY, New York, USA, 8th May 2017.
- Seminar on "Advanced rheology measurements for hydrates and CMP slurries" delivered by Prof. Matthew Liberatore, University of Toledo, organized by Department of Chemical Engineering, CCNY, CUNY, New York, USA, 1st May 2017.

- 6. Seminar on "Fluid Catalytic Cracking— Challenges and Opportunities for Catalyst Design" delivered by Dr. Lucas Dorazio, BASF Corporation, organized by Department of Chemical Engineering, CCNY, CUNY, New York, USA, 3<sup>rd</sup> April 2017.
- 7. Seminar on "Building Better Biofilms: Chemical Interactions and Structure-Function Relationships in Bacterial Communities" delivered by Prof. Allon Hochbaum, University of California, Irvine, organized by Department of Chemical Engineering, CCNY, CUNY, New York, USA, 27th March 2017.
- 8. Seminar on "Controlling Catalysis with Visible Light" delivered by Prof. Tomislav Rovis, Columbia University, organized by Department of Chemistry and Biochemistry, CCNY, CUNY, New York, USA, 20th March 2017.
- 9. Seminar on "Development of Experiment and Theory to Detect, Predict, and Visualize Ligand Phase Separation on Metal Nanoparticles" delivered by Prof. David Green, University of Virginia, organized by Department of Chemical Engineering, CCNY, CUNY, New York, USA, 27th February 2017.
- 10. Seminar on "Collaboration for Innovation" AIT Solutions, Thailand, 12-13th May 2016.
- 11. Seminar on "Water Environment Engineering in China: Creative innovation towards the future" delivered by Prof. Xiaochang Wang, School of Environment & Municpal Engineering, Xian University of Architecture & Technology, China, organized by Environmental Engineering and Management, Asian Institute of Technology (AIT), Thailand, 17th March 2016.
- 12. Training program on "Urban Climate Change Adaptation and Resilience" organized by AECOM, East-West Centre, and the Asian Institute of Technology Thailand, 7-11th March 2016.
- 13. Seminar on "Advanced Technology and Innovation for sanitation: solar toilets and safe effluent reuse by UV by Prof. Karl G. Linden, University of Colorado at Asian Institute of Technology (AIT), Thailand, 10th March 2016.
- 14. Seminar on "Biomass supply chain sustainability in India" delivered by Prof. Sadhan Kumar Ghosh, University of Jadhavpur, Kolkata, India, organized by Asian Institute of Technology (AIT), Thailand, 8th March 2016.
- 15. Seminar on "Using DNA to conserve and protect Tropical Forest" delivered by Prof. Andrew Lowe, Professor and Director, Centre for conservation Science & Technology, University of Adelaide, Australia, organized by Energy Engineering Field, Asian Institute of Technology (AIT), Thailand, 1st March 2016.
- 16. Seminar on "Hazard risks" delivered by Dr. Indrajit Pal, Disaster Preparedness, Mitigation and Management division, organized by Energy Engineering Field, Asian Institute of Technology (AIT), Thailand, 13th February 2016.
- 17. Seminar on "Why Fukushima-1 accident happened?" delivered by Dr. Noritaka Yusa, Associate Professor, Department of Quantum Science and Energy Engineering, Graduate School of Engineering, Tohoku University, organized by Energy Engineering Field, Asian Institute of Technology (AIT), Thailand, 23<sup>rd</sup> February 2016.
- 18. Seminar on "Electricity Access in Developing World" delivered by Dr. Govinda R. Timilsina, Senior Research Economist, World Bank, organized by Energy Engineering Field, Asian Institute of Technology (AIT), Thailand, 9th February 2016.
- 19. 103<sup>rd</sup> Indian Science Congress, University of Mysore, 3-7<sup>th</sup> January 2016.
- 20. 4th IGCW Two day Symposium on Industrial Green Chemistry World (IGCW 2015), organised by Green ChemisTree Foundation, Mumbai during 3-4th December, 2015.
- 21. Seminar on "Research on CO<sub>2</sub> to Methanol", organized by ONGC, New Delhi, during 29th September 2015.
- 22. International conference on Sustainable Agriculture, Horticulture & Environmental Development, a Global Concern, 21-23, Feb. 2014, Janparishad, Bhopal.
- 23. TEQIP sponsored short term training program on "Recent advances in Renewable Energy Systems" 21-25th October, 2013, Department of Energy, MANIT Bhopal
- 24. TEQIP sponsored faculty development program on "Reverse Osmosis Principle and Applications" June17-21, 2013, Department of Chemical Engineering, PEC Puducherry
- 25. AICTE sponsored faculty development program on "Computational techniques and its applications in Engineering research" May 27- June 7, 2013, Department of Mechanical Engineering, PEC Puducherry, India.
- 26. TEQIP sponsored faculty development program on "Green Manufacturing and Material Processing" June 10-14, 2013, Department of Mechanical Engineering, PEC Puducherry

- 27. Two days National Workshop on "Recent Trends in Renewable Energy", 09-10, Nov, 2012, Department of Mechanical Engineering, MANIT Bhopal.
- 28. Two days National seminar on "Energy, Environmental and Sustainability", 1-2 March, 2012, Department of Energy, MANIT Bhopal.
- 29. Two days Workshop on "Writing Effective Conference Papers", 18-19 Feb. 2012, Under MHRD, Govt. of India & IIT Bombay, MANIT Bhopal.
- 30. ISTE Workshop for Coordinators On Heat Transfer, Under the National Mission on Education through ICT (MHRD, Govt. of India), IIT Bombay, Sep 12-16, 2011
- 31. Green technology towards low carbon society, MANIT, Bhopal, March 30, 2011
- 32. Cleaner technology, short-term course, CPCB-IIT Roorkee, Feb., 23-25, 2011.
- 33. National conference on genomics: Tool for Bioprospecting, Department of Bioinformatics, MANIT, Bhopal, Nov 20-21, 2010.
- 34. International conference and exhibition on Oil and Gas, Petrotech2010, ONGC, New Delhi, Oct 31-Nov 03, 2010.
- 35. Science and Technology for Sustainable Development of India, Department of Electrical Engineering, MANIT, Bhopal, Aug 13-14, 2010.
- 36. Use of sophisticated instruments like GC-MS/GC, HPLC, CHNS, AOX analyzer, CPCB and IIT Roorkee, Feb 15-19, 2010.
- 37. Safety, Health and Environment Management in Hydrocarbon Industry, Petroleum Federation of India, Petrotech Society and IIT Roorkee, Jan 22-24, 2008.
- 38. Pollution Control Techniques for Distillery Waste, CPCB and IIT Roorkee, March 3-5, 2008.
- 39. Hazardous Waste, Batteries Waste and E-Waste Management, CPCB and IIT Roorkee, Nov 13-15, 2008.
- 40. Computational Fluid Dynamic, QIP Short term course. AICTE and IIT Roorkee, June 16-27, 2008.
- 41. Environment, Health and Safety Management in Process Industries, CPCB and IIT Roorkee, Oct 20-22, 2008.
- 42. Recent Trends in Environmental Management Strategies in Petroleum, Petrochemical and Fertilizer Industries, CPCB and IIT Roorkee, Feb 11-13, 2008.
- 43. Municipal Solid Waste-Planning, Collection, Handling and Disposal, IIT Roorkee, Dec 4-8, 2007.
- 44. National Science Day celebrations "Nurture Nature for our future", organized by Pondicherry University, Puducherry, India, 28th February, 2006.
- 45. National level Technical symposium "INChES 2006" organized by IIChE, Department of Chemical Engineering, Annamalai university, Tamil Nadu, April, 2006.
- 46. National Seminal on "Protein Engineering" (NSPE), organized by Department of Chemical Engineering, Annamalai university, Tamil Nadu, 7-8th March, 2005.
- 47. UGC Refresher course on Industrial Biotechnology, University Grant Commission and Annamalai University, Nov 3-27, 2004.
- 48. Workshop on "Energy Management" organized by Indian Institute of Chemical Engineers (IIChE), Pondicherry Regional Chapter (PRC) and Department of Chemical Engineering, Pondicherry Engineering College, Puducherry, India, 8th February 2003.
- 49. National Seminar on "Clean & Sustainable Technology", organized by IIChE PRC and Department of Chemical Engineering, Pondicherry Engineering College, Hotel Annamalai International, Puducherry, India, 10th-11th October, 2003.
- 50. National Level Students Technical Symposium "Tie lines 2002", organized by Chemical Engineering, Pondicherry Engineering College, Puducherry, India, 2002.

#### INDUSTRIAL/FIELD VISITS

- 1. Navin Fluorine International Ltd, Dewas-Madhya Pradesh, 2024
- 2. Hindustan Electrode Graphite Ltd, Mandideep-Madhya Pradesh, 2023
- 3. Central Effluent Treatment Plants, Indore-Madhya Pradesh, 2020
- 4. Gas Authority of India Limited (GAIL), Vijayapur-Madhya Pradesh, 2019
- 5. New York Wastewater Treatment Plant, USA, 2018
- 6. The King's Royally Initiated Laem Phak Bia Environmental Research and Development Project, 25th March 2016.
- 7. AIT Wastewater treatment plant. Thailand, 23rd March 2016.
- 8. Cho Heng Rice Vemicelli Co Ltd. Thailand, 18th March 2016.

- 9. Akkhie Prakarn Co., Ltd. Thailand, 15th March 2016.
- 10. Banwa-Hi Tech Industrial Estate wastewater Treatment plant, Thailand, 15th February 2016.
- 11. Nonthaburi Municipality, Nonthaburi Province, Thailand, 11th February 2016.
- 12. Bhopal Municipal Corporation, Bhopal, M.P., India, 2015.
- 13. Pilot scale gasifier plant, near Law college, Bhopal, M.P., India, 2014.
- 14. Pilot scale Biogas plant (10m<sup>3</sup>/45m<sup>3</sup>), Sharda Vihar school campus, Bhopal, M.P., India, 2014.
- 15. Central Institute of Agricultural Engineering, New Delhi, 2014.
- 16. Ordnance Factory, Itarsi, M.P., India, 2014.
- 17. Central Institute of Polymer Engineering & Technology, Bhopal, M.P., India, 2014.
- 18. SOM Distillery Industry, Bhopal, M.P, India, 2013, 2021
- 19. Lupin & Lupin Pharmaceutical Industry, Bhopal, M.P., India, 2013.
- 20. Pollution Control Board, Bhopal, M.P., India, 2013.
- 21. Grasim Industry, Nagda, M.P., India, 2013.
- 22. Solid waste dumping yard, Banpura, Bhopal, M.P., India, 2013.
- 23. Pilot scale gasifier plant, Manna Village, Bhopal, M.P., India, 2012.
- 24. Agrawal Paper Mill and Agro Industry, Vidhisa, M.P., India, 2011.
- 25. Modi Sugar Industry, UP, India, 2009.
- 26. Municipal Wastewater Treatment Plant, Haridwar, Uttarakhand, India, 2009.
- 27. Central Pollution Control Board, New Delhi, India, 2009.
- 28. Engineers India Limited, New Delhi, India, 2009.
- 29. Indo-Gulf Fertilizers Ltd., (Aditya Birla group) Jagdishpur (U.P.), India, 2007.
- 30. Hindustan Lever Limited, Vadamangalam, Puducherry, India, 2004.
- 31. Shashan and Chemfab chemicals Industries, Kalapet, Puducherry, India, 2004.
- 32. Anglo-French Textile Industry, Puducherry, India, 2004.
- 33. Sica Breweries, Puducherry, India, 2003.
- 34. Leather/Biofiber Industry, Karaikal, Puducherry, India, 2003.
- 35. Henkel India Ltd, Karaikal, Puducherry, India, 2003.
- 36. Grasim Cements Industry, Ariyalur, Tamil Nadu, India, 2003.
- 37. Pondicherry Co-operate Sugar Mill Ltd, Lingareddipalayam, Puducherry, 2003.
- 38. Jyothy laboratories Ltd, Puducherry, 2003.
- 39. Caplin Point Laboratories Ltd, Puducherry, 2002.
- 40. Chennai Petroleum Corporation Limited, Chennai, India, 2002.

#### RESEARCH INTERESTS

New sorbents & Catalysts, Reactor Design, Environmental Biotechnology, Wastewater Treatment, Waste-to-Energy, Nanoengineered Materials, Biofuels and Intermediates from CO<sub>2</sub> and Biomasses, Green Hydrogen, Decarbonization and Energy Transition, Technical Textiles, Gas separation, Air Pollution Abatement, Sensing of toxic gases, Process Safety & Disaster Management

#### TEACHING INTERESTS

- Chemical Reaction Engineering
- Momentum, Heat and Mass Transfers
- Process Control and its dynamics
- Transport Phenomena
- Process Modelling and Simulation
- Environmental Pollution Control and Process Safety
- Water Quality and Management
- Bio-energy Engineering
- Biochemical/Bioprocess Engineering
- Advance Separation Processes
- Polymer Technology
- Fuel Processing and Technology
- Trends in Healthcare and Technology
- CFD Multiphase reactors/Industrial catalysis

- Green Chemistry and Clean Production Technology
- Advance Analytical Techniques
- Advance Materials characterization Techniques

#### PROFESSIONAL ASSOCIATIONS

- Society of Energy Engineers & Managers (Life Fellow: F-219317421001)
- The Institution of Engineers (India) (Life Fellow: F-1305057)
- Indian Institute of Chemical Engineers (LM-33054)
- Solar Energy Society of India (LM 1723)
- Indian Society for Technical Education (LM 79801)
- Chemical Research Society of India (LM 1648)
- Catalysis Society of India (LM 283)
- Indian Water Resources Society (LM 107219)
- International Congress of Chemistry and Environment (LF/S-48)
- The Biotech Research Society (LM 1292)
- Materials Research Society of India (LMB2409)
- The Indian Science Congress Association (L26682)
- Indian Water Works Association ((LM 8224)
- Institution of Public Health Engineers (LM 1629)
- Indian Society of Hydraulics (LM 1119)
- Biogas Forum India (LM 397)
- Indian Institution of Industrial Engineering (SM 10874)
- American Chemical Society (SM 5678412300)
- American Institute of Chemical Engineers (SM 9900154227)
- Indian Carbon Society (LM 601)
- Indian Society of Remote Sensing (LM 6265)