

Curriculum Vitae

Prof. Makarand M. Ghangrekar, Ph.D., MASCE, FNAE
Institute Chair Professor,
Professor, Department of Civil Engineering,
Former Chairperson, School of Environmental Science and Engineering,
Former Head, PK Sinha Centre for Bioenergy and Renewables,
Professor In-charge, Aditya Choubey Centre for Re-water Research,
Indian Institute of Technology, Kharagpur – 721 302. India
E-mail: gghangrekar@iitkgp.ac.in; or m_gghangrekar@rediffmail.com
Phone No. +91-3222- 283440 (O) 283441 @; Cell No. 9434023357; Whatsapp: 9064897158



Major Professional/Administrative Experience

- Head of the academic units at IIT Kharagpur (a) School of Environmental Science and Engineering, and (b) PK Sinha Centre for Bioenergy and Renewables for more than four years, and Professor In-charge Aditya Choubey Centre for Re-water Research.
- Worked as Chairman, Spring Fest for seven years, a largest Social and cultural student festival in eastern India organized by IIT Kharagpur
- Designed and Constructing 1.35 MLD Sewage treatment plant for hostels and another 300 m³/day sewage treatment plant at IIT Kharagpur to produce potable quality treated water.
- Worked as Professor-In Charge of Water Works and Sanitation for three years at IIT Kharagpur.
- At IIT Kharagpur as a Principal Investigator could bring external funding of more than Rs. 18.33 Crores for undertaking Research & Development projects and as a Co-Investigator I am/was involved in projects over Rs. 6.65 Crores. Undertaken consultancy projects as Principal consultant of more than Rs. 2.02 Crores.
- Constructed and operating 400 m³.day UASB reactor-based sewage treatment plant at IIT campus.
- Providing consulting for sewerage and sanitation infrastructure to various state Governments, namely Odisha, Chhattisgarh, Jharkhand, West Bengal, Assam, etc. and Government of India in National Mission for Clean Ganga.
- Provided design of more than 25 industrial wastewater treatment plants to Environmental Engineering consulting firms in India and two plants in Malaysia.
- Providing operational guidelines to effluent treatment plants to the industries.
- Worked as Assistant Warden at IIT Kharagpur and Rector at Government College of Engineering, Aurangabad.
- Experience of working in undergraduate student admissions, conducting centralized semester examinations, Centre head for common admission test (JEE/GATE) and carrier guidance.
- Associate Editor of Elsevier and Scopus Journals and Editorial board member for journals.

Education

1989 - **B.E.** (Civil Engineering, Distinction), Government College of Engineering, Karad, M.S., India.

1992 - **M.Tech.** (Environmental Engineering), VNIT (Former Visvesvaraya Regional College of Engineering), Nagpur, M.S., India.

January 1998 - **Ph.D.** (Environmental Science and Engineering), Indian Institute of Technology Bombay, Powai, Mumbai, India.

Professional Experience: 28 Years of Teaching, Research, and Consulting

Since August 2020, Institute Chair Professor, Indian Institute of Technology Kharagpur, India

March 2019 – March 2020: Chair Professor, Aditya Choubey Centre for Rewater Research, IIT Kharagpur.

Since, March 2017 – December 2021: Head/Chairperson, School of Environmental Science and Engineering, IIT Kharagpur

Since, March 2017: Professor In-Charge/ Head, PK Sinha Centre for Bioenergy and Renewables, IIT Kharagpur

Since December 2011: Professor, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721 302 (WB), India

February 2010 to June 2010: Visiting Scientist, Ben Gurion University, Israel, under Marie Curie Fellowship by European Union.

September 2008 to December 2008: Marie Curie Fellow (Experience category), School of Chemical Engineering and Advanced Materials, University of Newcastle upon Tyne, UK.

April 2007 to November 2011: Associate Professor, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721 302 (WB), India

January 2004 – April 2007: Assistant Professor, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721 302 (WB), India

August 2003 – December 2003: Lecturer, Department of Civil Engineering, Government College of Engineering, Pune – 411 005, Maharashtra, India.

May 1996 – July 2003: Lecturer, Department of Civil Engineering, Government College of Engineering, Aurangabad – 431 005, Maharashtra, India.

February 1992 – December 1992: Senior Project Fellow, National Environmental Engineering Research Institute, Nagpur, India.

June 1989 – July 1990: Civil Engineer, Private contractor, Nagpur, India.

Research Experience: (31 Years)

1. Application of microbial fuel cell for wastewater treatment and electricity production. First Indian to start research in this bioelectrochemistry domain.
2. Development of knowledge base for design, operation, and maintenance of Up-flow Anaerobic Sludge Blanket Reactor.
3. Development of low cost treatment method for sewage using high rate anaerobic processes, such as, UASB reactor, anaerobic filter, anaerobic baffled reactor.
4. Studies on granulation, start-up, and performance of Up-flow Anaerobic Sludge Blanket Reactor.
5. Evaluation of Engineering, Social and Economic Aspect of Intermittent V/s Continuous Water Supply for Urban Areas. Duration: February to December 1992, at National Environmental Engineering Research Institute, Nagpur.

Current Research/ Professional Interests

- ❖ Microbial fuel cell application for wastewater treatment.
- ❖ Desalination of wastewater
- ❖ Studies on Anaerobic-aerobic package sewage treatment plant for small community.
- ❖ Design and operation of UASB reactor for organic wastewater treatment.
- ❖ Bio-energy recovery during waste treatment.
- ❖ Reuse of treated wastewater
- ❖ Water treatment for public water supply and Sewage & Industrial Wastewater Treatment.

Research Projects

Principal Investigator for following projects:

1. **Coupled advanced oxidation and membrane bioreactor technology for removal of organics to facilitate recycling of wastewater in a polyethylene terephthalate plant.** Sponsored by DST, Technology Mission Division, Ministry of Science and Technology, Government of India. (DST/TMD(EWO)/OWUIS-2018/RS-10(G) dt. 27-09-2019. Rs. 4156,400/-. Duration 24 months w.e.f. 14-10-2019.
2. **Recent developments in Electrode Synthesis for Improving the performance and Upscaling the Bio-electrochemical Systems for Wastewater Treatment and Bio-electricity recovery (ESW_SKI).** Sponsored by Ministry of Human Resources Development, Government of India under SPARC program. Rs. 2607,180=00, Duration 15-03-2019 to 14-03-2021. Collaborator, VITO and University of Antwerp, Belgium.
3. **Aditya Choubey Centre for Re-Water Research (CRW).** Mr. Aneesh Reddy and Mr. Anant Choubey, Capillary Technologies, Singapore. Duration: 24.0 Months w.e.f. 01-07-2018. Funding: Rs. 20000,000.00.
4. Overall Indian coordinator and PI of the project **“Identifying best available technologies for decentralized wastewater treatment and resources recovery for India (SARASWATI-2.0)”**. EU Water project under Horizon 2020, funded by DST India. Duration March 2020 to February 2024. Co-PI: Prof. Brajesh Dubey; Funding Rs. 2.49 crores for IIT Kharagpur. Total funding Rs. 9.3759 crores.
5. **WIN project**
6. **Development of Smart Portable Bio-Electrochemical Toilet for Harvesting Electricity during Human Waste Treatment (SAP17_IITKGP_05) (DHT).** Swachhta Action Plan (SAP), IIT Madras, IC and SR, IIT Madras, Chennai – 600036. Duration: 36 Months w.e.f. 22-01-2018. Funding: Rs. 6886,000.00.
7. **Small scale and sustainable household grey water recycling (S3HWR) (PROJECT NO.: 5670) (SAQ).** MHRD, Department Of Higher Education, New Delhi, Ministry of Urban Development, GoI, Niman Bhawan, New Delhi- 110 108, F. No.: 41-2/2015-T.S.-I (Pt.), Dt. 09-01-2016; 36.0 Months w.e.f. 05-05-2017, Funding Rs. 3192,000.00.
8. **Develop an energy - efficient combined process of microbial fuel cell (MFC) & membrane bioreactor (MBR) for high efficiency & reliable treatment of organic wastewater (OER).** Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI), AES Boys Hostel Campus, Near Gujrat University Library and SBI, Navrangpura, Ahmedabad - 380 009, Gujrat; BIRAC SRISTI PMU - 2016/014, Dt. 04-04-2016; Duration: 24.0 Months w.e.f. 16-09-2016; Amount Rs. 1500000.00.
9. **Development of MFC Based Electro-chemical System for Sewage Treatment and Onsite Electricity Generation (SWE).** NTPC Limited, Plot No. 3, Block-E, Udhyog

- Vihar, Ecotech-II, Greater Noida. Duration: 24.0 Months w.e.f. 18-07-2017. Funding: Rs. 4236,000.00.
10. **Bioelectric toilet: a novel approach for treatment of human waste & generating onsite electricity for lighting toilets** (TNO). Department of Science and Technology (DST), Government of India. DST/TSG/NTS/2015/99 , Dt. 23-11-2016; Duration: 36.0 Months w.e.f. 23-11-2016; Funding Rs. 3594,360.00.
 11. **Intergrated MFC-MBR system using low cost multifunctional ceramic membrane for efficient wastewater treatment and electricity recovery (IUW)** funded by DBT, GoI jointly with EU under Inno-Indigo project. Funding Rs. 96.11 Lakhs, March 2016-March 2019 (bt/iN/inno-indigo/28/mmg/2015-16).
 12. **Development of Microbial carbon Capture Cell** under DBT PAN IIT center for Bioenergy, Funded by Department of Biotechnology, Government of India. Funding Rs. 66.26 Lakhs. January 2015 to December 2019.
 13. Principal Coordinator and investigator for DST-UKIERI project titled **“Development of high performance carbon nanomaterials for enhancing the cathodic oxygen reduction and performance of anode in microbial fuel cells”** Funding Rs. 18.14 Lakhs /- Rs. Duration: January 2015 to June 2016. DST/INT/UK/P-101/2014.
 14. **Simultaneous removal of organic matter and dissolved inorganic salts from wastewater in microbial desalination cell.** Funded by Tata Steel Ltd., Jamshedpur, Rs. 2000,000/-; File No. IIT/SRIC/CE/OMI/2013-2014/149, Duration: February 2014 to January 2016.
 15. **Supporting consolidation, replication and up-scaling of sustainable wastewater treatment and reuse technologies for India (SARASWATI).** Under FP7-ENV-2012-one stage, Funded by DST Rs. 81.32 Lakhs (No. DST/IMRCD/SARASWATI/2012/(G)/II), Duration: January 2013 to September 2017.
 16. **“Development of Microbial Fuel Cell for Direct Electricity Recovery During Wastewater Treatment”** Sponsored by DST under Technology system development programme. Funding Rs. 61.10 Lakhs (DST/TSG/NTS/2012/61), August 2012 to July 2015.
 17. **“Treatment of steam rice effluent”** project sponsored by Aquatreat Engineering, Pvt. Ltd. Kolkata, (No. 2009-10/CE/TSRE/11) Rs. 160,000/-. April to August 2009. Completed.
 18. **“Production of bioenergy during wastewater treatment”** Research project sanctioned by Ministry of Environment and Forest, New Delhi, India. Funding about Rs. 13,22,213/-. (F. No. 19-35/2005-RE). August 2007-July 2010
 19. **“Software development for providing off-line operational guidelines for anaerobic treatment systems”** Project proposed by Science Traveler International, Australia.
 20. **“Treatment and Reuse of Sewage from Small Community”** Research Project funded by ISIRD, IIT, Kharagpur. Duration: April 2004 to April 2007. Funding Rs. 3,00,000/-. Completed.
 21. **“Studies on Anaerobic-Aerobic Package Sewage Treatment Plants”**, funded by University Grants Commission, New Delhi, India. Duration: June 2003 to June 2006. (F.No. 14-10/2003 (SR)) Rs. 5,60,000/-. Completed.
 22. **“Development of knowledge base for design, operation and maintenance of Upflow Anaerobic Sludge Blanket Reactor”**, funded by University Grants Commission, New Delhi, India. Duration: April 1999 to April 2002. (F.No.14-10/98 (SR-I)), Rs. 3,64,080/- , Completed.
 23. **“Development of low cost treatment method for sewage”**, funded by All India Council for Technical Education, New Delhi, India. Duration: April 1999 to April 2002. (F. No.8017/ RDII/ R&D/ Deg (664) /98-99 dt. March 27, 1999 Rs. 6,00,000/-, Completed.

As Co-Investigator

1. **Development of a Photoelectrocatalytic (PEC) reactor and testing different photo-active catalysts for degradation of recalcitrant organic pollutants from wastewater.** Global Challenges Research Fund, Cardiff University, UK. PI: Dr. Sachin P. Nanavati, Prof. Rajakumar Anathakrishnan, Grant £ 24,960/-. **March 2020 till July 2020.**
2. **Pilot scale production of ethanol from lignocellulosic feedstock: a technological challenge (EFC).** MHRD, Department Of Higher Education, New Delhi, Ministry of Petroleum and Natural Gas, GoI, Shastri Bhawan, New Delhi, Devleela Lifesciences Pvt. Ltd., 36/395, Guru Nanesh Kripa, Civil Lines, Raipur - 492 001, Chhattis Garh; F. No. 35-13/2016-T.S. I, Dt. 12-08-2016; Duration: 36.0 Months w.e.f. 14-12-2016; Amount Rs. 153,72,400.00.
3. **Upgradation of laboratory and library facilities for renewable energy programme (ULR).** Funded by Ministry of New and Renuable Energy, Govt. of India. Funding Rs. 50.00 Lakhs. Duration 3-05-2012 to 02-05-2017. PI: Prof. R. Banerjee, Co-PI: Prof. S. Chakraborty.
4. **Award of Fellowship under national renewable fellowships (REF).** Funded by Ministry of New and Renuable Energy, Govt. of India. Funding Rs. 61.76 Lakhs. Duration 3-05-2012 to 02-05-2017. PI: Prof. R. Banerjee, Co-PI: Prof. S. Chakraborty.
5. **“Production of Ligonocellulosic Fuels: from Lab to Pilot Scale (PLF)”.** Funded by DBT, New Delhi. Funding Rs. 345.84 Lakhs. PI: Prof. R. Banerjee, Co-PI: Prof. S. Chakraborty, Prof. S. Ray, P.K. Sinha Centre for Bioenergy, IIT Kharagpur. 26-03-2012 to 25-03-2015.
6. **“P K Sinha Centre Project (PKS)”** Project sponsored by Dr. Prabhakant Sinha for enhancing research activities on Bioenergy. USD 150,000. PI: Prof. S. Chakraborty, Co-PI: Prof. R. Banerjee and Prof. M.M. Ghangrekar.
7. **“Ganga River Basin Environmental Management Plant (GMP)”** Environmental quality work group. Rs. 3000,000/-. Sponsored by Ministry of Environment and Forest, New Delhi. PI : Prof. D.J. Sen, Co-PI: M.M. Ghangrekar, Dr. A.K. Gupta, Dr. S. Goel.
8. **“Committee on Rain water harvesting”** Member of the committee set-up by Department of Environment, Govt. of West Bengal from 29 September 2011.

Consultancy Projects

1. Monitoring Gross Polluting Industries for CPCB (MGPC). Central Pollution Control Board, Ministry of Environment, Forest and Climate Change, Govt of India, Parivesh Bhawan, East Arjun Nagar, Delhi. Duration May 2019 to July 2019. Amount Rs. 2150,000.00.
2. Vetting of Design and Drawing for Drainage Pumping Station at Golf Garden in Ward No. 94 under Br-X under Kolkata Municipal Corporation (TDXM). MACKINTOSH BURN LIMITED, MBL House, DD-18/8, Sector-I, Salt Lake city, Kolkata. Amount Rs. 236000.00. From 01-12-2018 to 31-01-2019.
3. Validation of Design of EPC Project – Raipur (EPCR). SMS Limited (Corporate Office), IT Park, 20 S.T.P.I., Gayatri Nagar, Parsodi, Nagpur. Duration: November 2018 till March 2019. Amount Rs. 2950,000.00.
4. Monitoring Gross Polluting Industries for CPCB (CPCB). Central Pollution Control Board, Ministry of Environment, Forest and Climate Change, Govt of India, Parivesh Bhawan, East Arjun Nagar, Delhi. Duration April 2018 to November 2018. Amount Rs. 2131,034.00.

5. Vetting of Process and Hydraulics of STP at Adityapur (VASA). Shapoorji Pallonji And Co - KIPL (JV), Project Office, Jamshedpur, Jharkhand. Duration: March 2018 to March 2019. Amount Rs. 2360,000.00. Co-PI: Prof. N. Dhang, Prof. L.S. Ramachandra.
6. Adequacy of Effluent Treatment Plant (AETP). IVL Dhunseri Petrochem Industries Private Limited, Dhunseri House, Kolkata. Duration: February – April 2018. Amount Rs. 141,600.00.
7. Study on WWTP (DP-HP) (SWDH). MCPI PRIVATE LIMITED, Vill and P.O. Bhuniaraichak, HALDIA. Duration: 28-12-2017 to 30-04-2018, Amount Rs. 118,000.00.
8. Checking of Hydraulic Design of 4 MLD STP (CHDM). M M Enviro Projects Private Limited, Nagpur. Duration November-December 2018. Amount Rs. 100,000.00
9. Solid Waste Management in Guwahati (SWMG). Office of the Commissioner, Guwahati Municipal Corporation, Panbazar, Guwahati – 01. Duration: 01-04-2017 to 31-03-2019. Amount Rs. 4298,000.00.
10. **Consultant Shapoorji Pallonji Group** for developing Water and Wastewater Treatment Processes. December 2017 to November 2019. Rs. 1.0 Lakh per month.
11. Third party inspection services for Sahibganj municipal waste water project (ISWP). Urban Development and Housing Department, Govt. of Jharkhand, State Programme Management Group, Room No.: 403, 4th Floor, Project Bhawan, Dhurwa, Rancji – 834004. Duration: 01-01-2017 to 31-12-2018. Rs. 680,000.00.
12. Third party inspection of Ranchi sewerage project (TPIR). Urban Development and Housing Department, Govt. of Jharkhand, State Programme Management Group, Room No.: 403, 4th Floor, Project Bhawan, Dhurwa, Rancji – 834004. Duration: 01-04-2017 to 31-03-2019, Amount Rs. 230,000.00.
13. Inspection of GPIS for compliance verification of effluent discharged standards (IEDS). Central Pollution Control Board, Ministry of Environment, Forest and Climate Change, Govt. of India, Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032. Duration: 31-03-2017 to 30-04-2017. Amount Rs. 710,000.00.
14. DPR Review for Ganga river development work under National Mission for Clean Ganga, Government of India. Proposal Reviewed:
 - a. Rajmahal and Sahebganj river front development,
 - b. Solid waste management for Rajmahal and Sahebganj, Jharkhand
15. Design and Commissioning of UASB reactor for treatment of chocolate industry (CTCI). Sponsored by Industrial Water Engineering, Malaysia, Rs. 314,608; duration 24-06-2014 to 31-05-2015.
16. Review of pollution control measures at Poori (RPCM). Sponsored by Orissa Water Supply and Sewerage Board, Bhubaneswar. Rs. 123,596; duration 01-08-2014 to 31-12-2014.
17. UASB-Biofilm hybrid reactor (UBHR). Sponsored by Tata Steel Ltd. Jamshedpur, Rs. 1125583; 01-08-2014 to 31-12-2015.
18. Technical vetting of inhouse design of biotower for media requirement (TIBR). Oil and Natural Gas Corporation Ltd., Mumbai. Rs. 50,000/-. 01-12-2012 to 31-01-2013.
19. Setting up Sewage Disposal system at NIT Silchar (SDSN). NIT Silchar. Rs. 2.20 Lakhs. Duration: 18-07-2012 to 17-07-2013.
20. Expert advice on structural disorder in the 27 MLD capacity Water Treatment Plant at Kendrapada, Odisha (EMPH). Chief Engineer, Public Health (Urban), Bhubaneswar. Rs. 1.68 Lakhs, Duration 15-03-2012 to 14-06-2012.
21. “Development of Effluent treatment plant for Rice mills” (DETP). Qualicom solutions Pvt. Ltd. Bhubaneswar. Rs. 200,000/-; June to December 2011.
22. Checking design and drawing of UASB type sewage treatment plant (CDST). Apporv Air Control, Jaipur. (IIT/SRIC/CE/2010-2011/39. Rs. 3.25 Lakhs.
23. Study of water supply distribution/ storage and source availability for Darjeeling Municipality (No. 2007-2008/CE/SWSD/33). Amount Rs. 482,000/-. PI: Dr. V.R. Desai;

Co-PI: Dr. M.M. Ghangrekar; Dr. A. Sengupta. Sponsored by District Magistrate, Darjeeling.

24. Design of UASB reactor for bio-diesel wastewater treatment. Client: Industrial Water Engineers, **Malaysia**. Consultancy Fee Rs. 4,00,000/- (Project No. 2006-07/CE/UASB/75).
25. Adequacy of measures taken by Rourkela Steel Plant regarding the sewage treatment system of Rourkela Steel Plant Township (RSPT). Client: Rourkela Steel Plant, SAIL, Rourkela. Consultancy Fees Rs. 808,992/-. (Project No. IIT/SRIC/CE/2007-08/124).
26. Testing of Wholly Water appliances for arsenic and other pollutant removal from water. For Quality Systems & Inspection Services, Kolkata. Rs. 1,60,000/-.
27. Design of sewerage system with sewage pumping stations for Air Force Colony, Kalaikonda. Rs. 2,50,000/-.
28. Provided design of UASB reactor and operational guidelines for treatment of Brewery, Dairy, Pharmaceuticals wastewaters and Sewage treatment.
29. Extending consultancy services for design of water and wastewater treatment plants, operation and maintenance of effluent treatment plants, and water, wastewater and air quality monitoring.
30. Providing technical know-how for operation and maintenance of effluent treatment plants.

Seminar/ Training Programs Organization

- Organized International Workshop SARASWATI-2.0 EU-India annual consortium meeting, 6-7 December, Kolkata India.
- International organizing committee member for IWA SPECIALISED CONFERENCE ON WATER AND WASTEWATER MANAGEMENT WITH SPECIAL INTEREST TO DEVELOPING COUNTRIES at Murdoch University, Western Australia, December 2023.
- Webinar on “Moving towards sustainable sanitation and efficient water use practices” organized jointly by WIN foundation and IIT Kharagpur on 3rd September 2020.
- First specialized Indo-Belgium joint workshop on “**Upscaling of Bio-electrochemical Systems for Wastewater Treatment and Bioelectricity Recovery**” at Indian Institute of Technology Kharagpur, India, February 26-27, 2020, Total participants 109.
- Coordinator for AICTE short term course title “Waste to Wealth – the paradigm, the practice and the potential, one week, Rs. 450,000/-. 25-29 November 2019., IIT Kharagpur
- Coordinator for TEQIP-AICTE short term course title “Recent Trends in Industrial Pollution Control and Regulation” 19 – 23 November 2018, IIT Kharagpur
- Convener for INDO-EU workshop on “The Recent Developments In Microbial Fuel Cell And Membrane Bioreactor Technology”, February 2 – 3, 2018, IIT Kharagpur.
- Coordinator of the course on Environmental Electrochemistry under Global Initiative of Academic Network (GIAN) from 20 – 29 June 2016 at IIT Kharagpur.
- Coordinator for International Symposium on “New Horizons in Bioenergy Research” 14-16 January 2012 at IIT Kharagpur.
- Organizing committee member for International Symposium on Bioenergy, 5-7 January 2010, Bioenergy Symposium Series at IIT **Kharagpur**
- Coordinator for National Symposium on Bioenergy, IIT Kharagpur, 23rd November 2009.
- Coordinator for Short term course sponsored by A.I.C.T.E. on Waste Minimization and Bio-energy Recovery, November 22-26, 2009, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721 302.

- Coordinator for Short term course sponsored by A.I.C.T.E. on Advanced Technologies for Water and Wastewater Treatment, November 20-25, 2006, Department of Civil Engineering, Indian Institute of Technology, Kharagpur – 721 302.
- Worked as Coordinator for short term training programme on topic Environmental Pollution Control, July 14-25, 2003, sponsored by A.I.C.T.E. & I.S.T.E, New Delhi, Department of Civil Engineering, Government College of Engineering, Aurangabad, India.
- Worked as Organizing Secretary, National Environmental Awareness Campaign, the activity sponsored by MoEF, New Delhi, India for **six** times for the years 1998 to 2003 at Government College of Engineering, Aurangabad.
- Worked as Organizing Secretary for **two** national seminars sponsored by A.I.C.T.E., New Delhi, India a) Financing, Design, Construction and Operation of Highway, February 07-08, 2002 and b) Teacher vacancies in degree and diploma level technical institutions, January 11-12, 1999, Department of Civil Engineering, Government College of Engineering, Aurangabad, India

Editorial Board Member/ Associate Editor

1. Associate Editor, Sustainable Energy Technologies and Assessments (SETA), Elsevier from January 2021.
2. Associate Editor, Journal of Hazardous, Toxic, and Radioactive Waste, A journal of ASCE, American Society of Civil Engineers since January 2019.
3. Editorial Advisory Board Member, Current Research in Wastewater Management, Trend Research Publishing from January 2021.
4. Guest Editor, Process Biochemistry, Elsevier on the thematic issue Biofuel cell, 2020
5. Guest Editor, Sustainable Energy Technologies and Assessments , Elsevier on ‘Sustainable wastewater treatment: Challenges and Opportunities’ 2020
6. Guest Editor, Journal of Chemistry, Volume 2018. New Trends in Monitoring and Removing the Pollutants from Water. Hindawi. <https://doi.org/10.1155/2018/8394086>
7. Editorial Board Member, Renewable and Sustainable Energy: An International Journal (RSEJ) (<http://airccse.com/rsej/index.html>)
8. Editorial Board Member of Journal of Current Pollution Reports, Springer Publication.
9. Editor, The Scientific World Journal, Hindawi Publishing Corporation, New York, USA
10. Editorial Advisory Board Member of Chemical Bulletin, Romania, series of Chemical and Environmental Engineering, ISSN 1224-6018 (http://www.chim.upt.ro/buletin_chimie/)
11. Editorial Board Member International Journal of Wastewater Treatment and Green Chemistry (IJWTGC), Serials Publications, New Delhi, India.
12. Editorial Board Member Journal of Energy, Hindawi Publishing Corporation.

Conference Technical Advisor

- Organizing committee member 16th Specialist conference on Small Water and Wastewater treatment systems and 8th Specialist conference on resource oriented sanitation, 1-5 December 2019; Murdoch University, Perth, Australia.
- 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) international conference held BITS, Goa during 13 -16 November 2018.
- S2SMALL2017 International Water Association Conference, Nates, France, October 23-26, 2017.
- Scientific Committee member for ACESE’14. The first Asian Conference on Environmental Sciences and Engineering (ACESE’14) December 2014, Kuala Lumpur, Malaysia.

- Member of the Program Committee of AD13, an international conference organized by IWA, Santiago de Compostela, Spain, 14-17 July 2013.
- National Level Conference on 'Bio-Engineering Sciences" on March 1- 2, 2013. College of Engineering, Pune (COEP), India.
- National Conference on Environment Pollution and Management (EPM-2011), 28th & 29th January 2011, Government College of Engineering, Aurangabad.
- National Conference on Sustainable Water Resources Development and Management, SWRDAM-2010, 28-29 June, 2010, Government College of Engineering, Aurangabad.
- National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008 at Government College of Engineering, Aurangabad.
- National Conference On Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), [Www.Bits-Goa.Ac.In/Adrem2009](http://www.bits-goa.ac.in/adrem2009); January 13 – 15, 2009, Birla Institute of Technology and Science (BITS) – Pilani, Goa Campus
- National Conference on “Sustainable Development of Urban Infrastructure” June 2010, V.N.I.T., Nagpur.
- 12th World Congress on Anaerobic Digestion (AD12), Guadalajara, México, November 2010 Conference by International Water Association (IWA)
- “Applications of Neural Network, Fuzzy and Genetic Algorithm in Water Resources and Environmental Engineering” organized by Civil Engineering Department of Amrutvahini College of Engineering, Sangamner-422 608 on 28 – 29, Jan 2010.

Sessions Chaired During Conferences

- Chaired a session in the IWA Water Development Congress, in Srilanka, 2-5 December 2019.
- Chaired a session during 8th International Conference on Clean and Green Energy (ICCGE 2019), February 13-15, 2019 in Milan, Italy.
- Chaired a session during 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) international conference held BITS, Goa during 13 -16 November 2018.
- Chaired a session during International Conference on Biotechnological Research and Innovation for Sustainable Development (BioSD-2018), IICT, Hyderabad during 22-25 November, 2018.
- Chaired a session during Recycle conference held in Malaysia, 3-4 May 2017.
- 3rd National conference on recent advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
- National Conference on Recent Advances in Bio-energy Research, Organized by Sardar Swaran Singh National Institute of Research, **Kapurthala**, Punjab, India, December 7-8, 2012.
- Microbes in Wastewater and Waste Treatment, IWA conference, Goa, 24-26, January 2011.
- National Conference On Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), [Www.Bits-Goa.Ac.In/Adrem2009](http://www.bits-goa.ac.in/adrem2009); January 13 – 15, 2009, Birla Institute of Technology and Science (BITS) – Pilani, Goa Campus
- National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008 at Government College of Engineering Aurangabad.
- 1st International Water Association – Asia-Pacific Regional Group (IWA-ASPIRE) Conference and Exhibition, Singapore, July 10-15, 2005

Awards/Recognitions

- **CHEMCON-2022 Distinguished Speaker Award** constituted by CSIR-CSMCRI, conferred in CHEMCON-2022 on 28th December 2022 at Kanpur.
- Elected as a **Member European Academy of Sciences and Arts**, since 2022.
- **STAIR-2021** (Science and Technology Academic, Innovations and Research) **Distinguished Professor Award**
- "**Outstanding Scientist Award**" 2021 by International Research Award on Science, Health and Engineering.
- Recipient of Vividhlaxmi Audyogik Samshodhan Vikas Kendra (**VASVIK**) **award** for 2020 in Environmental Science & Technology.
- **Fellow INAE**, Indian National Academy of Engineering, India, Since 1st November 2020.
- **Institute Chair Professor**, August 18, 2020, Indian Institute of Technology Kharagpur, India
- Appointed as **Research Advisor**, Nan Yang Academy of Sciences, Singapore from October 13, 2018.
- **Gandhian Young Technology Innovation (GYTI) Awards** 2018, received at President's House, New Delhi on 19th March 2018 for the project titled "Novel low-cost Polyvinyl alcohol-Nafion-Borosilicate membrane separator for microbial fuel cell treating distillery waste water".
- **Gandhian Young Technology Innovation (GYTI) Appreciation** 2018, received at President's House, New Delhi on 19th March 2018 for the project titled "Bioelectric toilet: A novel approach for treatment of human waste and generating onsite electricity for lighting toilets".
- Received award from Ministry of Drinking Water and Sanitation (Govt. of India) under **Swachhathon 1.0** (Swachh Bharat Hackathon) under the category Early decomposition of faecal matter for the project "Smart Microbial Fuel Cell-Bioelectric Toilet Technology (MFC-BTT) for human waste treatment, wastewater reuse and simultaneous electricity recovery for illuminating toilets in remote areas". 8th September 2017, New Delhi.
- **Excellent paper award** and Euro 2500 Cash prize for the paper titled "Domiciliary management of mango waste for power production using biological fuel cell-a green technology" authored by Iti Sharma and Makarand Madho Ghangrekar in the conference 23rd World Energy Congress, by the Scientific Committee and the experts of World Energy Council. 9-13 October, 2016, Istanbul, Turkey.
- **Gandhian Young Technology Innovation (GYTI) Awards** 2016, received at President's House, New Delhi on 13th March 2016.
- **Gandhian Young Technology Innovation (GYTI) Awards** 2015, received at President's House, New Delhi on 8th March 2015.
- **Rajesh P.P and Ghangrekar M.M.** Springer award-2015 for the best paper presented in International Conference on Recent Advances in Bio-energy Research (ICRABR-2015), Kapurthala, India.
- **Alexander von Humboldt Fellowship** under connect program for short visit to Germany in July 2013.
- **National Design Award 2012** for Environmental Engineering by NDRF, Institution of Engineers, India
- **Marie Curie Fellowship** under FP-7 knowledge transfer program by EU, duration February 2010 to July 2010, Ben-Gurion University of Negev, Israel.
- Receipt of the **Top reviewer award** for the year 2008, by the Elsevier Journal 'Bioresource Technology'.
- **Marie Curie Fellowship** under FP-6 program by EU, Duration September to December 2008. Worked at University of Newcastle Upon Tyne, UK.

- **Prof. R.C. Singh Medal** by Institution of Engineers (India), for the year 2007 for the paper published in the Journal of Environmental Engineering Division.
- **Mrs and Mr. Bhupesh Nandy Medal** from Institution of Engineers, India for the year 2002 for the paper Published in Jan-March 2002.
- **Prof. R.C. Singh Medal** by Institution of Engineers (India), for the year 1999 for the paper published in the issue February 1999.
- **Shri. P.V. Patki Memorial award** by Indian Water Works Association for the year 1998 for the paper published in the issue January 1998.

Achievements

1. Member, International Relations Committee, American Academy of Environmental Engineers and Scientists for year 2021-2023.
2. Professor In-charge for Aditya Choubey Centre for Re-water Research, IIT Kharagpur.
3. Member of the expert committee for TEQIP, AICTE, Government of India.
4. Task force member, Environmental Biotechnology, Department of Biotechnology, Ministry of Science and Technology, Government of India.
5. Media coverage of our research work at IIT Kharagpur
<https://thelogicalindian.com/exclusive/bio-electric-toilet/>
 Financial Express - <http://www.financialexpress.com/.../iit-kharagpur-de.../1118991/>
 Business Standard - <http://www.business-standard.com/.../iit-kharagpur-develops-s...>
 India Today - <https://www.indiatoday.in/.../iit-kharagpur-develops-self-sus...>
 NDTV - <https://www.ndtv.com/.../iit-kharagpur-develops-self-sustaina...>
 Outlook - <https://www.outlookindia.com/.../iitkharagpur-develop.../1281587>
 Times of India - <https://timesofindia.indiatimes.com/.../articles.../63572387.cms>
6. Coverage of the research work by Nature publishing in Nature India on Earthen Pot fuel cell. DOI:10.1038/nindia.2010.116 published in August 2010.
7. One of the papers published in 2007 is among the Top 25 hottest article published in the Journal Bioresource Technology in year 2007 (Rank 13).
8. Working as Asia region Representative for ‘Anaerobic digestion’ specialist group of International Water Association.
9. Nominated as Senate Member (Academic Board, Senate), Government College of Engineering Amravati, An Autonomous Institute of Government of Maharashtra, in the year 2010.
10. Working as member for ‘Water and Energy’ working group of International Water Association.
11. Worked as a member of *Nature*’s Reader Panel, Nature publishing for the year 2009.
12. Invited as Chief Guest for Felicitating the winners of the Talent Search Examination conducted by Dainik Lokmat News paper at Aurangabad, 3rd January 2010.
13. Coverage of the research work done by me on microbial fuel cell in Water21, December 2007, page 64, A magazine published by International Water Association, under the heading ‘Low energy treatment from fuel cells without membranes’
14. Working as a ‘Reviewer’ for 34 International Journals.
15. Represented Board of Studies, Civil Engineering Faculty, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S.), India, as an expert in the year 2000 to 2003.
16. Approved Ph.D. Research Guide by Dr. B.A.M. University, Aurangabad and University of Pune, Maharashtra, India.

Membership of Professional Bodies

Life Member – Indian Association for Environmental Management (LM-1495)

Life Member (MIE) – Institution of Engineers (India) – (M 123 256/2)

Life Member – Indian Society for Technical Education (LM – 38089)

Member, International Water Associate (IWA) (No. 00931025), since 2005

Member, American Society for Civil Engineers (ASCE) (No. 1044632048), Since 2020

Member, International Society for Microbial Electrochemical Technologies (ISMET) (No. 95)

Member of the International Relations Committee (2021-2023), American Academy of Environmental Engineers and Scientists (AAEES)

Elected Member, European Academy of Sciences and Arts, since March 2022.

Member, International Sustainable Development Research Society (ISDRS)

Help Forum Member, www.waterandwastewater.com

Invited Lectures / Papers

1. CSIR-CSMCRI CHEMCON Distinguished Speaker Award Lecture on ‘A pilot scale demonstration of O_3/H_2O_2 /UV coupled solar concentrator with membrane bioreactor and activated carbon for treatment of petrochemical wastewater, delivered on 28th December at CHEMCON 2022, Kanpur, India
2. Delivered invited lecture in National Seminar on Urban Waste Management & Air Pollution Control: Issues & Challenges on Waste Water Management: Issues and Challenges on 21st January, 2023 at The Stadel Hotel, Salt Lake, Kolkata.
3. Guest Speaker for “Research for Resurgence Conclave” under 108th Indian Science Congress on 5th January 2023 at Nagpur. Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur. Delivered talk on how to execute successful research.
4. Guest Speaker for International Conference on ‘Sustainable and Resilient Environment Development -2023 (ICSRED – 23) jointly organized by GH Rasoni College of Engineering and NEERI Nagpur on 17 and 18 February 2023 at NEERI Nagpur. Delivered lecture on Biological and Bioelectrochemical wastewater treatment systems.
5. Delivered invited talk on Biological and bioelectrochemical solutions for wastewater treatment in International conclave on ‘Adaptation of Green Construction Practices With Focus on Water Resources’ organized by VNIT, Nagpur and Indian Water Works Association, February 11-12, 2022.
6. Delivered invited talk on Biological and bioelectrochemical solutions for wastewater treatment in International Online Conference- BIOTECHSPECTRUM 2022, organized by Cochin University, February 4-5, 2022.
7. Delivered invited talk on Biological and bioelectrochemical solutions for wastewater treatment and valuables recovery, Gasification Conference India 2021, organized by Mission Energy Foundation (A not-for-profit Organisation), Thane, India. November 25-26, 2021.
8. Delivered invited lecture on “Exploiting Biological and Bio-electrochemical wastewater treatment technologies to facilitate reuse of treated water and resource recovery.” in the Prof. Pitchai memorable lecture series at IIT Madras on June 05, 2021.
9. Delivered invited lecture on Applications of Bioelectrosystem for waste remediation and products recovery in Recent Advances in Environmental Biotechnology, A TEQIP-III Sponsored Online Short-Term Course organized at IIT Kharagpur on 5 – 9 October 2020.
10. Delivered invited lecture on ‘Exploiting bioelectrochemical process for wastewater treatment and value added product recovery’ on September 16, 2020, in a Faculty Development Program on Emerging Trends in Civil Engineering, ETCE 2020 organized by Civil Engineering Department, VSSUT Burla, Odisha.

11. Delivered invited lecture on ‘Exploiting bioelectrochemical process for wastewater treatment and value added product recovery’ on September 09, 2020, in a Faculty Development Program on “Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies” organized by NIT Warangal, India.
12. Delivered invited lecture on ‘Exploiting bioelectrochemical process for wastewater treatment and value added product recovery’ on September 07, 2020, in a Faculty Development Program on Recent Advances in Earthquake Engineering and Environmental Engineering RAEEE-2020. NIT Silchar. India.
13. Delivered invited talk on Bioelectrochemical process for waste treatment and value added product recovery in the Interdisciplinary Faculty Development Program (FDP) on “Challenges and Opportunities in Recent Emerging Technologies” scheduled, 6th to 10th July 2020. Organized by SGGGS College of Engineering and Technology, Nanded.
14. Delivered invited talk on ‘Application of Bioelectrochemical System for Sustainable Wastewater Treatment’ in the Faculty Development program organized by P P Savani University, Gujarat on 7th July 2020.
15. Delivered invited talk on Prospects of Bioelectrochemical System in the Faculty Development Course on ‘Waste to Bioenergy’ jointly organized by Sharda University, Noida and Maharashtra Institute of Technology, Aurangabad on 30-06-2020, attendance 505 participants.
16. Exploiting bio-electrochemical systems to facilitate producing reusable quality treated water and resource recovery. Keynote address in International Conference on Advances in Civil & Structural Engineering (ICACSE - 2020), May 28-30, 2020, Government college of Engineering Karad, India.
17. Makarand M. Ghangrekar (2020). “Exploiting bioelectrochemical systems to facilitate producing reusable quality treated water and resource recovery”, delivered plenary talk in Indo Bengium Workshop held at IIT Kharagpur, 26-27 February 2020.
18. Delivered invited talk on “Smart Microbial Fuel Cell based Bioelectric Toilet Technology for onsite human waste treatment and electricity recovery” SFD Week, CSE Knowledge Conclave, 2-5 April, 2019, Alwar, Rajasthan.
19. Delivered invited talk on ‘Towards sustainable and reliable sanitation infrastructure to facilitate reuse of treated water for reducing stress on freshwater’ February 22-23, 2019, SIDM-2019, VNIT, Nagpur
20. Delivered invited talk on ‘Bioelectrochemical processes for conversion of waste to wealth’ in International workshop on Hybrid technologies for conversion of Lignocellulosic Biomass to Biofuels, December 11-13, 2019, Jadavpur University, Kolkata
21. Invited Talk “Bioelectrochemical Systems application in Wastewater treatment” ADTech-SAB2018: the 2nd international conference on anaerobic digestion technology: sustainable alternative bioenergy for a stable life. 4-7 June 2018, **Chaing Mai**, Thailand.
22. Delivered invited lecture on Application of Bioelectrochemical processes for wastewater treatment and value added product recovery BITS, Goa Campus, January 2018.
23. Delivered invited talk on research on Bioelectrochemical processes at IIT Kharagpur, University of Bremen, Germany on 17 September 2018
24. Delivered invited talk on Microbial fuel cell research at IIT Kharagpur, University of Tartu, Estonia, June 2017.
25. Plenary Key note speech on “Exploiting bioelectrochemical systems for waste reclamation and bioresource recovery” in International Conference on Anaerobic Digestion: AD Technology and Microbial Ecology for Sustainable Development (ADTech-2015); 3–6 February 2015, Chiang Mai, Thailand.
26. Presentation on recent research on Microbial Fuel Cell at IIT Kharagpur, 13 June 2014. Flemish Institute of Technological Research (VITO), Mol, Belgium.

27. Optimizing anodic chamber volume and power density of microbial fuel cell using polarization curves for scaling up. 3rd National conference on recent advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
28. Ghangrekar MM (2013). Miniature to scaling up of microbial fuel cell: a critical review on recent advancement, 5th Indo-Korea Joint Workshop on Bioenergy, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum, September 9-10, 2013.
29. Ghangrekar MM (2013). Waste to energy approach for decentralized wastewater treatment system by microbial desalination cell. Indo-Mexican Workshop on Sustainable Water and Wastewater Management, July 25-26, 2013, NEERI, Nagpur
30. Ghangrekar M.M. (2013). Bioenergy recovery using wastewater as fuel from low cost microbial fuel cell. University of Bremen, Germany 4th July 2013.
31. Ghangrekar M.M. (2013). A low cost microbial fuel cell treating wastewater and simultaneously generating electricity for onsite applications. 5th Indo-German Frontiers of Engineering Symposium 2013 (INDOGFOE 2013). 14th to 17th March 2013, Hyderabad.
32. Ghangrekar M.M. (2013). Energy recovery during wastewater treatment. National workshop on application of different techniques for waste water management under current scenario. CEM Kolaghat, West Bengal, March 23-24, 2013.
33. Ghangrekar M.M. (2013). Resources recovery from wastewater and reuse. 2nd Workshop on Indian Water Management in 21st Century and Symposium on Sustainable Infrastructure Development, 7th-9th February 2013, IIT Bhubaneswar.
34. Ghangrekar M.M. and Manaswini Behera (2012). Application of Bio-electrochemical systems. Indo-French Seminar, Dec 3rd-6th, 2012 IIT Delhi.
35. Ghangrekar M.M. (2012). A brief review on recent advances in air-cathode microbial fuel cells. *Recent Advances in Bio-energy Research*, Organized by Sardar Swaran Singh National Institute of Research, Kapurthala, Punjab, India, December 7-8, 2012.
36. Ghangrekar M.M. and Deepak Jadhav (2012). Electrode materials used in microbial fuel cells. Lecture delivered in the AICTE sponsored short term course on 'Renewable energy materials and their industrial application' 05-16, November 2012, IIT Kharagpur.
37. Ghangrekar M.M. (2012). Bioenergy recovery during wastewater treatment. University of California, Berkeley, USA. 12th July 2012.
38. Ghangrekar M.M. (2012). Performance of clayware microbial fuel cell. University of Braunschweig, Germany, 12 May 2012.
39. M. Behera, M.M. Ghangrekar (2011). Energy Recovery Wastewater Treatment Processes. Seminar on Importance of Water Chemistry in Thermal Power Plant and Wastewater Treatment, organized by WBPDC, Institution of Engineers India, Kolkata 10 July 2011.
40. Delivered invited lecture on "Bioenergy recovery during waste management" in Patel Institute of Technology, Bhopal on 8th July 2011.
41. Delivered invited lecture on 1. Design and Start-Up of Upflow Anaerobic Sludge Blanket (UASB) Reactor for Methane Recovery From Wastewater, and 2. Microbial Fuel Cell: A Technology For Wastewater Treatment And Renewable Energy, in a short term course on Environmental Engineering Systems Design & Optimization, VNIT, Nagpur, 4-5, December 2009
42. Invited Lecture on 'Low cost microbial fuel cell fabrication for application in wastewater treatment' July 6, 2009, University of Politehnica, Timisoara, Roania.
43. Invited key note address on 'Microbial Fuel Cell' at National Conference on Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), January 13 – 15, 2009, Birla Institute of Technology and Science (BITS) – Pilani, Goa Campus
44. Invited Lecture on 'Wastewater treatment using microbial fuel cell', University of Newcastle upon Tyne, UK, 17 November, 2008.
45. Invited lecture at NTPC, New Delhi on 'Bio-energy recovery (methane and electricity) during wastewater treatment' June 20, 2008.
46. Invited key note address on "Bioenergy recovery during treatment of organic wastes" at the National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008, Aurangabad.
47. Invited paper titled 'Performance evaluation of membrane and membrane-less microbial fuel cell'. International conference on New Horizons in Biotechnology (NHBT-2007), NIST, Trivandrum, India, 26-29 November, 2007

48. Invited Lecture on “Design of UASB reactor” at Indian Water Works Association Nagpur centre on 26th December 2006.
49. Delivered a Lecture at Hong Kong University on ‘Application of microbial fuel cell for wastewater treatment and electricity generation’ April 7, 2006.
50. Invited lectures on ‘Anaerobic treatment of chemical industry wastewater’ Ciba Specialist Chemicals Pvt. Ltd. Goa. February 17-18, 2006.
51. Delivered Lectures (2 Lectures) at Govt. College of Engineering, Amaravati, in the short term training programme on Energy and Environment, on 15th and 16th December 2005. Lecture titles 1) Design and start-up of UASB reactor, and 2) Microbial Fuel Cell: A New Approach of Wastewater Treatment with Power Generation
52. Delivered Lectures (4 hrs) at V.N.I.T., Nagpur in the short term training programme on Environmental Engineering System Optimization, December 13 – 23, 2004, on the theme ‘Optimizing design and performance of UASB reactor’.
53. Wastewater Reuse and secondary treatment of wastewater using UASB reactor. Invited Paper in the Proceedings of one-day workshop on Reuse, Recycling and conservation of Industrial Wastewater, 10th July 2004, S.G.G.S. College of Engineering, Nanded – 431 606. India.
54. Design and start-up of UASB reactor. Invited paper presented in Indo-French Seminar on “*Emerging Technologies for Water and Wastewater Management*” 9-12 February 2004, IIT Delhi.
55. Cost efficacy and performance of UASB reactor for sewage treatment. Invited Paper presented at Workshop on “Ponds systems and UASB reactor treatment for sewage”, Sponsored by Swedish International Development Authority, at IIT, Mumbai, 24-25 January, 2002.
56. Anaerobic Treatment of sewage and industrial waste for pollution control. Invited lecture at Institution of Engineers, India, Aurangabad local center April, 2003.

Countries Visited

Singapore, Malaysia (Kuala Lumpur and Johar), Hong Kong, Thailand (Bangkok, Chiang Mai (twice), Phuket), Canada (Moncton), England (Newcastle, London, Edinburgh), Romania (Timisoara, Sinaia, Brashov, Bucharest), Israel (Beer Sheva, Sde Boker), Germany (Frankfurt, Braunschweig, Bremen (twice), Augsburg), The Netherlands (Amsterdam, TU Delft), Greece (Athens, Crete), France (Paris, Nantes), USA (Berkeley, San Francisco), Belgium (Brussels, Mol), Italy (Rome, Milan, Venice), Estonia (Tallinn, Tartu), Okinawa and Tokyo (Japan), Colombo (Srilanka), Norway (Narvik).

Patents

Filed Indian patent on

1. Fabrication of Low Cost Microbial fuel cell using Earthen pot as a proton exchange material. Patent application No. 1198/KOL/2009 date 24/09/2009. Patent No. IN200901198I2. Published 2013-06-28. Ghangrekar Makarand Madhao | Behera Manaswini | Jana Partha Sarathi.
2. Earthen material based cathode separator assembly for bioelectrochemical system. Provisional Patent application No. 805/KOL/2013. Date 05/07/2013.
3. Development of cost effective membrane cathode assembly for a single chambered microbial fuel cell. Indian Patent Application No.: 1302/KOL/2013 dated 14/09/2013. Granted: Patent No. 355538. Inventors: Soumya Pandit, Shantimoyi Khilari, D. Das, M.M. Ghangrekar, D. Pradhan.
4. Anode, Cathode and Separator in Microbial Fuel Cell (MFC) for Treatment of Wastewater and Electricity Generation. Provisional Patent filed in March 2014.
5. Enhancing organic matter removal from malt based distillery wastewater by *Aspergillus awamori* pretreatment, for Chitosan recovery, and electricity recovery in microbial fuel cell. Indian Patent Application No.: 822/KOL/2014 dated August 4, 2014. Patent No.

IN201400822I2. Published 2016-08-26. RAY Sreemoyee Ghosh | Ghangrekar Makarand Madhao.

6. A system for simultaneous treatment of wastewater and waste gas using a microbial carbon capture cell reactor. Indian Patent Application No.: 0471/KOL/2015 dated April 28, 2015.
7. Yellow laccase mediated delignification of Lignocellulosic biomass. Provisional Indian Patent file No. 201631005954.
8. In situ microbial fuel cell based waste water treatment system. Provisional Patent Application No.: 201831031356 and dated August 21, 2018. Patent No. IN201831031356A published on 28-02-2020. Das Indrasis | Ghangrekar Makarand Madhao.

Course Developed

Wastewater Management, NPTEL web based course for Masters in Environmental Engineering (<http://www.nptel.ac.in/courses/105105048/>)

Waste to Energy: Biotechnological solutions, a post graduate level course at IIT Kharagpur

Research Papers/ Book Chapters/ Articles/Conference papers: Total: 598

H-Index: 51, Total citation = 8327 (As per Scopus data base)

H-Index: 54, Total citation = 10332, i10-index-187 (As per google-scholar data base)

JOURNALS: 262 (Indian = 16, International = 246)

1. Anil Dhanda, Rishabh Raj, S. M. Sathe, B.K. Dubey, M.M. Ghangrekar (2023). Graphene and Biochar-based Cathode Catalysts for Microbial Fuel Cell: Performance Evaluation, Economic Comparison, Environmental and Future Perspectives. *Environmental Research*.
2. Monali Priyadarshini; Azhan Ahmad; Indrasis Das, Makarand M. Ghangrekar, B.K. Dutta (2023). Efficacious degradation of ethylene glycol by ultraviolet activated persulphate: Reaction kinetics, transformation mechanisms, energy demand, and toxicity assessment. *Environmental Science and Pollution Research*. In press.
3. Azhan Ahmad; Monali Priyadarshini; Makarand Madhao Ghangrekar; Rao Y. Surampalli (2023). Optimization of electro-charge loading in electrocoagulation using response surface methodology for the abatement of salicylic acid from wastewater. *Journal of Environmental Engineering, ASCE*.
4. Rajarshi Bhar, Abhisek Mondal, Brajesh K. Dubey, M.M. Ghangrekar (2023). A Review on the Scope of Remediating Chlorinated Paraffin Contaminated Water Bodies and Soils/Sediment. *Science of the Total Environment*
5. Monali Priyadarshini, Azhan Ahmad, Makarand M. Ghangrekar (2023). Efficient upcycling of iron scrap and waste polyethylene terephthalate plastic into $\text{Fe}_3\text{O}_4@\text{C}$ incorporated MIL-53(Fe) as a novel electro-Fenton catalyst for the degradation of salicylic acid. *Environmental Pollution*.
6. Debkumar Chakraborty, M.M. Ghangrekar (2023). Lactate and acetate extraction from LBR leachate and process optimization using RSM. *Environmental Technology*.
7. Laxmi Pathi Thulluru, Makarand M. Ghangrekar, Shamik Chowdhury (2023). Progress and perspectives on microbial electrosynthesis for valorisation of CO_2 into value-added products. *Journal of Environmental Management*.
8. Ankesh Ahirwar, Swati Das, Sovik Das, Yung-Hun Yang, Vandana Vinayak, Makarand M. Ghangrekar (2023). Photosynthetic microbial fuel cell for bioenergy and valuable production: A review of circular bio-economy approach. *Algal Research*.
9. Rishabh Raj, Swati Das, Sovik Das, M.M. Ghangrekar (2023). Environmental Aspects of Endocrine Disrupting Compounds in the Aquatic Ecosystem and the Application of Electrochemical Technologies for their Abatement. *Groundwater for Sustainable Development*.
10. Choudhary Yasser Bashir, Rishabh Raj, Sovik Das, M.M. Ghangrekar (2023). Application of bimetallic cathode catalysts for enhancing the performance of microbial fuel cell: A review. *Journal of Water, Air, & Soil Pollution*.
11. Swati Das, Rishabh Raj, Sovik Das, M.M. Ghangrekar (2023). Evaluating application of photosynthetic microbial fuel cell to exhibit efficient carbon sequestration with concomitant value-added product recovery from wastewater: A review. *Environmental Science and Pollution Research*.
12. Azhan Ahmad, Monali Priyadarshini, Rishabh Raj, Sovik Das, M.M. Ghangrekar (2023). Appraising efficacy of existing and advanced technologies for the remediation of beta-blockers from wastewater: A review. *Environmental Science and Pollution Research*. In Press.
13. Swati Das, Rishabh Raj, Sovik Das, M.M. Ghangrekar (2023). A sustainable approach for the production of green energy with the holistic treatment of wastewater through microbial electrochemical technologies: A review. *Frontiers in Sustainability, section Sustainable Chemical Process Design*.
14. Santosh Kumar, Monali Priyadarshini, Azhan Ahmad, M. M. Ghangrekar (2023). Advanced biological and non-biological technologies for carbon sequestration, wastewater treatment, and concurrent valuable recovery: A review. *Journal of CO_2 Utilization*. 68, 102372.
15. Azhan Ahmad, Monali Priyadarshini, Indrasis Das, Makarand M. Ghangrekar, Rao Y. Surampalli. (2022). Surfactant aided electrocoagulation/flotation using punched electrodes for the remediation of salicylic acid from wastewater. *Journal of Environmental Chemical Engineering*. 11(1), 109049.

16. Swati Das, Sovik Das, M.M. Ghangrekar (2022). Enzymatic cell disruption followed by application of imposed potential for enhanced lipid extraction from wet algal biomass employing photosynthetic microbial fuel cell. *Bioresource Technology*. 363, 127924.
17. Azhan Ahmad, Monali Priyadarshini, Shraddha Yadav, Makarand M. Ghangrekar, Rao Y. Surampalli (2022). The potential of biochar-based catalysts in advanced treatment technologies for efficacious removal of persistent organic pollutants from wastewater: A review. *Chemical Engineering Research and Design*. 187, 470-496.
18. Monali Priyadarshini, Azhan Ahmad, Sovik Das, Makarand M. Ghangrekar (2022). Application of innovative electrochemical and microbial electrochemical technologies for the efficacious removal of emerging contaminants from wastewater: A review. *Journal of Environmental Chemical Engineering*. 10(5), 108230
19. Debkumar Chakraborty, Sankar Ganesh Palani, M. M. Ghangrekar, N. Anand, Pankaj Pathak (2022). Dual role of grass clippings as buffering agent and biomass during anaerobic co-digestion with food waste. *Clean Technologies and Environmental Policy*. 24(9), 2787-2799. <https://doi.org/10.1007/s10098-022-02355-5>
20. G. D. Bhowmick, M. M. Ghangrekar, Ivar Zekker, K. Tammeveski, M. Wilhelm, R. Banerjee (2022). Ultrafiltration membrane bio-fuel cell as an energy-efficient advanced wastewater treatment system. *International Journal of Energy Research*. 46(14), 20216-20227.
21. Monali Priyadarshini, Indrasis Das, Makarand M. Ghangrekar, Lee Blaney (2022). Advanced oxidation processes: performance, advantages, and scale-up of emerging technologies. *Journal of Environmental Management*. 316, 115295. IF: 6.789.
22. Knawang Chhunji Sherpa, Debajyoti Kundu, Subhodeep Banerjee, Makarand Madhao Ghangrekar, Rintu Banerjee (2022). An integrated biorefinery approach for bioethanol production from sugarcane tops. *Journal of Cleaner Production*, 352, 131451, doi: <https://doi.org/10.1016/j.jclepro.2022.131451>.
23. Swati Das, Sovik Das, M.M. Ghangrekar (2022). Efficacious Bioremediation of Heavy Metals and Radionuclides from Wastewater Employing Aquatic Macro and Microphytes. *Journal of Basic Microbiology*, 62 (3-4), 260-278.
24. Anamika Yadav, Deepak Jadhav, M.M. Ghangrekar (2022). Effectiveness of constructed wetland integrated with microbial fuel cell for domestic wastewater treatment and to facilitate power generation. *Environmental Science and Pollution Research*. 29(34), 51117-51129. IF: 4.23.
25. Azhan Ahmad, Monali Priyadarshani, Sovik Das, M. M. Ghangrekar (2022). Role of bioelectrochemical systems for the remediation of emerging contaminants from wastewater: A review. *Journal of Basic Microbiology*. 62(3-4), 201-222. IF: 1.909.
26. Monali Priyadarshini, Azhan Ahmad, Sovik Das, M. M. Ghangrekar (2022). Application of microbial electrochemical technologies for the treatment of petrochemical wastewater with concomitant valuable recovery: A review. *Environmental Science and Pollution Research*. 29(41), 61783-61802. IF: 4.223
27. Azhan Ahmad, Monali Priyadarshini, Sovik Das, Makarand Madhao Ghangrekar (2022). Electrocoagulation as an efficacious technology for the treatment of wastewater containing active pharmaceutical compounds: A review. *Separation Science and Technology* (IF: 1.718). 57(8), 1234-1256. <https://doi.org/10.1080/01496395.2021.1972011>
28. S.V. Ambekar, Makarand Ghangrekar (March 2022). Performance evaluation of microbial fuel cell using novel anode architecture and with low cost components. *Journal of Environmental Engineering and Science*. 17(4), 157-163. DOI: 10.1680/jenes.21.00071
29. Abhishek Singhal, A.K. Gupta, Dubey B., M.M. Ghangrekar (2022). Seasonal characterization of municipal solid waste for selecting feasible waste treatment technology for Guwahati city, India. *Journal of the Air and Waste Management Association*. 72(2), 147-160.
30. S. M. Sathe, Indrajit Chakraborty, Manikanta Doki, B. K. Dubey, M. M. Ghangrekar (2022). Waste-

- derived iron catalyzed bio-electro-Fenton process for the cathodic degradation of surfactants. *Environmental Research*. 212, 113141 (1-9).
31. Deb Kumar Chakraborty, Obulisamy Parthiba Karthikeyan, J.W.C. Wong, M.M. Ghangrekar (2022). Two-phase anaerobic digestion of food waste: Effect of semi-continuous feeding on acidogenesis and methane production. *Bioresource Technology*, 346,126396.
 32. Rajesh P.P., Christine, P., Ghangrekar M.M. (2022). Optimum dose of *Chaetoceros* for controlling methanogenesis to improve power production of microbial fuel cell. *Water Science and Technology*, 85(1), 257-264.
 33. Mohd Jahir Khan, Sovik Das, Vandana Vinayak, Deepak Pant, M.M. Ghangrekar (2022). Live diatoms as potential biocatalyst in a microbial fuel cell for harvesting continuous diafuel, carotenoids and bioelectricity. *Chemosphere*, 291,132841.
 34. Swati Das, Sovik Das, M.M. Ghangrekar (2022). Bacterial signalling mechanism: An innovative microbial intervention with multifaceted applications in microbial electrochemical technologies. *Bioresource Technology*. 344, 126218.
 35. S. M. Sathe, Indrajit Chakraborty, B. K. Dubey, M. M. Ghangrekar (2022). Microbial fuel cell coupled Fenton oxidation for the cathodic degradation of emerging contaminants from wastewater: applications and challenges. *Environmental Research*. 204,112135.
 36. Monali Priyadarshini, Azhan Ahmad, Sovik Das, Makarand M. Ghangrekar (2022). Metal organic frameworks as emergent oxygen reducing cathode catalysts for microbial fuel cells: A review. *International Journal of Environmental Science and Technology*. 19(11), 11539-11560. DOI: 10.1007/s13762-021-03499-5. IF: 2.860.
 37. Indrajit Chakraborty, Sovik Das, B. K. Dubey, M. M. Ghangrekar (2021). High density polyethylene waste derived carbon as a low-cost cathode catalyst in microbial fuel cell. *International Journal of Environmental Research*. 15(6), 1085-1096.
 38. Indrajit Chakraborty, Debanjali Ghosh, S. M. Sathe, B. K. Dubey, D. Pradhan and M. M. Ghangrekar (2021). Investigating the efficacy of CeO₂ multi-layered triangular nanosheets for augmenting cathodic hydrogen peroxide production in microbial fuel cell. *Electrochimica Acta*. 398, 139341.
 39. Aishwarya Rastogi, M.K. Tiwari, M.M. Ghangrekar (2021). A Review on Environmental Occurrence, Toxicity and Microbial Degradation of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). *Journal of Environmental Management*. 300, 113694. IF: 6.789.
 40. Rishabh Raj, Akash Tripathi, Sovik Das, M. M. Ghangrekar (2021). Removal of caffeine from wastewater using electrochemical advanced oxidation process: A mini review. *Case Studies in Chemical and Environmental Engineering*. Volume 4, 100129 (1-9).
 41. Sagarika Panigrahi, Hari Bhakta Sharma, Bikash Ranjan Tiwari, Nakka Vamsi Krishna, M.M. Ghangrekar, Brajesh Kumar Dubey (2021). Insight into understanding the performance of electrochemical pretreatment on improving anaerobic biodegradability of yard waste. *Renewable Energy*. 180, 1166-1178. IF: 8.001.
 42. Abhishek Singhal, Anil K. Gupta, B.K. Dubey, M.M. Ghangrekar (2022). Seasonal characterization of municipal solid waste for selecting feasible waste treatment technology for Guwahati city, India. *Journal of the Air & Waste Management Association*. 72(2), pp. 147-160. IF: 2.258.
 43. S. M. Sathe, Indrajit Chakraborty, V. R. Sankar Cheela, Shamik Chowdhury, B. K. Dubey, M. M. Ghangrekar (2021). A novel bio-electro-Fenton process for eliminating sodium dodecyl sulphate from wastewater using dual chamber microbial fuel cell. *Bioresource Technology*. 341, 125850. IF: 9.642.
 44. Dibyojyoty Nath, Sovik Das and M. M. Ghangrekar (2021). High throughput techniques for the rapid identification of electroactive microorganisms. *Chemosphere*, 285,131489.
 45. Ivar Zekker, Anni Mandel, Ergo Rikmann, Madis Jaagura, Siim Salmar, Makarand Madhao Ghangrekar, Taavo Tenno (2021). Ameliorating effect of nitrate on nitrite inhibition for denitrifying P-accumulating organisms. *Science of The Total Environment*. 797, 149133. IF: 7.963.

46. Mihaela Ciopec, Gabriela Biliuta, Adina Negrea, Narcis Duteanu, Coseri Sergiu, Petru Negrea, Makarand Ghangrekar (2021). Testing of chemically activated cellulose fibers as adsorbents for treatment of arsenic contaminated water. *Materials*, MDPI, 14(13),3731. IF: 3.623.
47. Ghorai, Arijit; Roy, Sambit; Das, Sovik; Komber, Hartmut; Ghangrekar, Makarand M.; Voit, Brigitte; Banerjee, Susanta (2021). Preparation of sulfonated polytriazoles with phosphaphenanthrene unit via click polymerization: fabrication of membranes and properties thereof. *ACS Applied Polymer Materials*. 3(8), 4127-4138.
48. S. M. Sathe, Indrajit Chakraborty, M. M. Ghangrekar (2021). Wastewater treatment and concomitant bioelectricity production using microbial fuel cell: Present aspects, up-scaling and future inventiveness. *INAE Transactions*, Springer, 6(3), 633-651.
49. Salma Jabeen, Muhamed Sufaid Khan, Rozina Khattak, Ivar Zekker , Juris Burlakovs, Sergio S. dC Rubin, Makarand Madhao Ghangrekar, Anna Kallistova, Nikolai Pimenov, Idrees Khan, Muhammad Zahoor*, Gul Shahzada Khan (2021). Palladium- supported Zirconia-Based Catalytic Degradation of Rhodamine-B Dye from Wastewater. *Water*, 13(11),1522. IF: 3.103.
50. Sultan Alam, Wahida Bibi, Muhammad Sufaid Khan, Ivar Zekker, Juris Burlakovs, Makarand Ghangrekar, Gourav Dhar, Anna Kallistova, Nikolai Pimenev, Muhammad Zahoor (2021). Preparation of activated carbon from the wood of *Paulownia tomentosa* as efficient adsorbent for the removal of acid red 4 and methylene blue present in wastewater. *Water*, 13(11),1453.
51. Indrasis Das, Sovik Das, Swati Das, M.M. Ghangrekar (2021). Proficient Sanitary Wastewater Treatment in Laboratory and Field-Scale Microbial Fuel Cell with Anti-Biofouling $\text{Cu}_{0.5}\text{Mn}_{0.5}\text{Fe}_2\text{O}_4$ as Cathode Catalyst. *Journal of The Electrochemical Society*, 168(5), 054519.
52. Ivar Zekker, Oleg Artemchuk, Ergo Rikmann, Kelvin Ohimai, Gourav Dhar Bhowmick, Makarand Madhao Ghangrekar, Juris Burlakovs, Taavo Tenno (2021). Start-Up of Anammox SBR from Non-Specific Inoculum and Process Acceleration Methods by Hydrazine. *Water (Switzerland)*, 13(3), 350.
53. Sultan Alam, Muhammad Sufaid Khan, Ali Umar, Rozina Khattak, Najeeb ur Rahman, Ivar Zekker, Juris Burlakovs, Sergio DC. Dhar Rubin, Makarand Madhao Ghangrekar, Gourav Dhar Bhowmick, Anna Kallistova, Nikolai Pimenov, Abbas Khan, Mohammad Zahoorus (2021). Preparation of Pd-Ni nanoparticles supported on activated carbon for efficient removal of basic blue 3 from water. *Water (Switzerland)*, 13(9),1211.
54. Azhan Ahmad, Monali Priyadarshini, Sovik Das, M. M Ghangrekar (2021). Proclaiming electrochemical oxidation as a potent technology for the treatment of wastewater containing xenobiotic compounds: A mini review. *ASCE's Journal of Hazardous, Toxic, and Radioactive Waste*. 25(3),04021012.
55. Dibyojyoty Nath, Indrajit Chakraborty, M.M. Ghangrekar (2021). Integrating microbial electrochemical technologies for methane-to-bioelectricity and water-splitting to impart self-sustainability to wastewater treatment plants. *Bioresource Technology Reports*, 13, 100644(1-13).
56. Sovik Das, M. M. Ghangrekar (2021). Performance comparison between batch and continuous mode of operation of microbial electrosynthesis for the production of organic chemicals. *Journal of Applied Electrochemistry*. 51, 715–725, IF: 2.398.
57. Sovik Das, Swati Das, M. M. Ghangrekar (2021). Application of TiO_2 and Rh as cathode catalyst to boost the microbial electrosynthesis of organic compounds through CO_2 sequestration. *Process Biochemistry*. 101, 237-246. IF: 2.952
58. Ivar Zekker, Oleg Artemchuk, Ergo Rikmann, Kelvin Ohimai, Gourav Dhar Bhowmick, Makarand Madhao Ghangrekar, Juris Burlakovs and Taavo Tenno (2021). Start-Up of Anammox SBR from Non-Specific Inoculum and Process Acceleration Methods by Hydrazine. *Water*, 2021, 13, 350. <https://doi.org/10.3390/w13030350>
59. V. Tholia, B. Neethu, G. D. Bhowmick, M. M. Ghangrekar (2021). Enhancing the performance of microbial fuel cell by using chloroform pre-treated mixed anaerobic sludge to control

- methanogenesis in anodic chamber. *Applied Biochemistry and Biotechnology*. 193:846–855. IF: 1.638
60. G. D. Bhowmick, Sovik Das, Koushik Adhikary, M. M. Ghangrekar, Arunabha Mitra (2021). Bismuth impregnated Ruthenium/Activated carbon as photo-cathode catalyst to proliferate the efficacy of microbial fuel cell. *ASCE's Journal of Hazardous, Toxic, and Radioactive Waste*. 25(1), 04020066. IF:1.120
 61. Indrajit Chakraborty, Gourav Dhar Bhowmick, Dibyojyoty Nath, C. N. Khuman, B. K. Dubey, M. M. Ghangrekar (2021). Removal of sodium dodecyl sulphate from wastewater and its effect on anodic biofilm and performance of microbial fuel cell. *International Biodeterioration & Biodegradation*. 156 (2021) 105108 (1-9). DOI: <https://doi.org/10.1016/j.ibiod.2020.105108>. IF: 4.074
 62. Dibyojyoty Nath, Indrajit Chakraborty, M.M. Ghangrekar (2021). Methanogenesis inhibitors used in bio-electrochemical systems: A review revealing reality to decide future direction and applications. *Bioresource Technology*. Volume 319, January 2021, 124141, (1-13). Impact factor: 7.539
 63. Sovik Das, Indrajit Chakraborty, Swati Das, M.M. Ghangrekar (2021). Application of novel modular reactor for microbial electrosynthesis employing imposed potential with concomitant separation of acetic acid. *Sustainable Energy Technologies and Assessments*. 43 (2021) 100902. IF: 3.860
 64. Verma, Rajneesh; Chakraborty, Indrajit; Chowdhury, Shamik; Ghangrekar, Makarand; Balasubramanian, Rajasekhar (2020). Nitrogen and Sulfur Co-doped Graphene Macroassemblies as High-Performance Electrocatalysts for Oxygen Reduction Reaction in Microbial Fuel Cells. *ACS Sustainable Chemistry & Engineering*. 8(44), 16591-16599. DOI: <https://dx.doi.org/10.1021/acssuschemeng.0c05909>
 65. Dibyojyoty Nath, M.M. Ghangrekar (2020). Plant secondary metabolites induced electron flux in microbial fuel cell: Investigation from laboratory-to-field scale. *Scientific Reports, Nature Publishing*. (2020) 10:17185 (1-17) | <https://doi.org/10.1038/s41598-020-74092-y>. IF: 4.120.
 66. Jayeeta Saha, Indrajit Chakraborty, M.M. Ghangrekar (2020). A novel tin-chloride-zirconium oxide-kaolin composite coated carbon felt anode for electro-oxidation of surfactant from municipal wastewater. *Journal of Environmental Chemical Engineering*. 8(6),104489.
 67. Sovik Das, Diels Ludo, Deepak Pant, Sunil Patil, M.M. Ghangrekar (2020). Microbial electrosynthesis: A way towards the production of electro-commodities through carbon sequestration with microbes as biocatalysts. *Journal of The Electrochemical Society*. 167 (15), 155510 (1-10).
 68. G. D. Bhowmick, Dhruba Dhar, M. M. Ghangrekar, R. Banerjee (2020). TiO₂-Si or SrTiO₃-Si impregnated PVA based low-cost proton exchange membranes for application in microbial fuel cell. *Ionics*. 26(12), 6195-6205.
 69. Sovik Das, Ashish Mishra, M.M. Ghangrekar. (2020). Concomitant production of bioelectricity and hydrogen peroxide leading to the holistic treatment of wastewater in microbial fuel cell. *Chemical Physics Letters*. 759, 137986 (1-5). <https://doi.org/10.1016/j.cplett.2020.137986>.
 70. Ivar Zekker, Gourav Dhar Bhowmick, Hans Priks, Dibyojyoty Nath, Ergo Rikmann, Madis Jaagura, Taavo Tenno, Kaido Tamm, Makarand Madhao Ghangrekar (2020). ANAMMOX-denitrification biomass in microbial fuel cell to enhance electricity generation and nitrogen removal efficiency. *Biodegradation, Springer Nature publication*, 31(4-6), 249-264.
 71. Indrajit Chakraborty, Neel Ghosh, Debanjali Ghosh, B. K. Dubey, D. Pradhan, M. M. Ghangrekar (2020). Application of synthesized porous graphitic carbon nitride and it's composite as excellent electrocatalysts in microbial fuel cell. *International Journal of Hydrogen Energy*. 45(55), 31056-31069.
 72. Indrajit Chakraborty, Gourav Dhar Bhowmick, Debanjali Ghosh, B. K. Dubey, D. Pradhan, M. M. Ghangrekar (2020). Novel low-cost activated algal biochar as a cathode catalyst for improving performance of microbial fuel cell. *Sustainable Energy Technologies and Assessments*. 42,100808. IF: 3.860

73. Deepak Jadhav, Indrasis Das, M.M. Ghangrekar, Deepak Pant (2020). Moving towards practical applications of microbial fuel cells for sanitation and resource recovery. *Journal of Water Process Engineering*. 38, 101566 (1-10). IF: 3.370.
74. B. Neethu, G. D. Bhowmick, M. M. Ghangrekar (2020). Improving performance of microbial fuel cell by enhanced bacterial-anode interaction using sludge immobilized beads with activated carbon. *Process Safety and Environmental Protection*. 143, 285-292. IF: 4.384.
75. G. D. Bhowmick, B. Neethu, M. M. Ghangrekar, R. Banerjee (2020). Improved performance of microbial fuel cell by in-situ methanogenesis suppression while treating fish market wastewater. *Applied Biochemistry and Biotechnology*. 192:1060–1075. IF: 2.220
76. S. M. Sathe, G. D. Bhowmick, B. K. Dubey, M. M. Ghangrekar (2020). Surfactant removal from wastewater using photo-cathode microbial fuel cell and laterite based hybrid treatment system. *Bioprocess and Biosystems Engineering*. 43(11), 2075-2084. IF: 2.227.
77. B. Neethu, G. D. Bhowmick, A. Fathima, M. M. Ghangrekar (2020). Anodic inoculum pre-treatment by extracts of *Azadirachta indica* leaves and *Allium sativum* peels for improved bioelectricity recovery from microbial fuel cell. *International Journal of Hydrogen Energy*. 45(43), pp. 23391-23400. IF: 4.229.
78. Ashutosh Gupta, Sovik Das, M. M Ghangrekar (2020). Optimal cathodic imposed potential and appropriate catalyst for the synthesis of hydrogen peroxide in microbial electrolysis cell. *Chemical Physics Letters*. 754, 137690 (1-5). IF: 1.901.
79. Ghorai, Arijit; Roy, Sambit; Das, Sovik; Komber, Hartmut; Ghangrekar, Makarand ; Voit, Brigitte; Banerjee, Susanta (2020). Chemically Stable Sulfonated Polytriazoles Containing Trifluoromethyl and Phosphine Oxide Moieties for Proton Exchange Membranes. *ACS Applied Polymer Materials*. 2(7), 2967–2979. <https://doi.org/10.1021/acsapm.0c00443>. Citations: 4
80. Anaparthi Ganesh Kumar, Sayantani Saha, Bikash Ranjan Tiwari, Makarand M. Ghangrekar, Anuja Das, Rabibrata Mukherjee, Susanta Banerjee (2020). Sulfonated Co-poly(ether imide)s with Alkyne Groups: Thermally Cross-linking Through Alkyne-Azide Click Reaction for Creation of Crosslinked Membranes and Studies on Proton Exchange Membrane Properties and Performance Evaluation in Microbial Fuel Cell. *Polymer Engineering & Science*. 60(9), pp. 2097-2110; IF: 1.760
81. Swati Das, Sovik Das, M.M. Ghangrekar (2020). The COVID-19 pandemic: Biological evolution, treatment options and consequences. *Innovative Infrastructure Solutions*, Springer International Publishing. 5(3),76 (1-12); <https://doi.org/10.1007/s41062-020-00325-8>
82. Indrajit Chakraborty, S. M. Sathe, B. K. Dubey, M. M. Ghangrekar (2020). Waste-derived biochar: Applications and future perspective in microbial fuel cells. *Bioresource Technology*. 312, September 2020, 123587 (1-12). IF: 7.539
83. Neethu B., Viswajeet Tholia, M.M. Ghangrekar (2020). Optimizing Performance of a Microbial Carbon-Capture Cell using Box-Behnken Design. *Process Biochemistry*. 95, 99-107; IF: 2.980
84. Sovik Das, Indrasis Das, M.M. Ghangrekar (2020). Role of applied potential on microbial electrosynthesis of organic compounds through carbon dioxide sequestration. *Journal of Environmental Chemical Engineering*. 8(4), 104028 (1-5). IF: 4.020.
85. G. D. Bhowmick, Dhruva Dhar, Dibyojyoty Nath, M. M. Ghangrekar, R. Banerjee, Soumen Das, J. Chatterjee (2020). Coronavirus disease 2019 (COVID-19) outbreak: Some serious consequences with urban and rural water cycle. *npj Clean Water by Springer Nature*. (2020) 3:32 (1-8); <https://doi.org/10.1038/s41545-020-0079-1>
86. Indrasis Das, Sovik Das, M.M. Ghangrekar (2020). Application of bimetallic low-cost CuZn as oxygen reduction cathode catalyst in lab-scale and field-scale microbial fuel cell. *Journal of Chemical Physics Letters*. 751, 137536 (1-6). Impact Factor: 1.901.
87. Indrasis Das, Sovik Das, Sahil Sharma, M.M. Ghangrekar (2020). Ameliorated performance of a microbial fuel cell operated with an alkali pre-treated clayware ceramic membrane. *International*

- Journal of Hydrogen Energy. 45 (33), 16787-16798. IF: 4.229.
88. Das, Indrasis; Noori, Mohammad; Shaikh, Melad; Ghangrekar, Makarand; Ananthakrishnan, Rajakumar (2020). Synthesis and Application of Zirconium Metal-Organic Framework in Microbial Fuel Cells as a Cost-Effective Oxygen Reduction Catalyst with Competitive Performance. ACS Applied Energy Materials. 3(4), 3512-3520. DOI: <https://dx.doi.org/10.1021/acsaem.0c00054>.
 89. Azhan Ahmad, Sovik Das, M.M. Ghangrekar (2020). Removal of Xenobiotics from Wastewater by Electrocoagulation: A mini review. Journal of Indian Chemical Society. 97(4), 493-500.
 90. Monali Priyadarshi, Indrasis Das, M.M. Ghangrekar (2020). Application of Metal Organic Framework in Wastewater Treatment: Review. Journal of Indian Chemical Society. 97(4), 507-512.
 91. Indrasis Das, Sovik Das, Rohan Dixit, M. M. Ghangrekar (2020). Goethite supplemented natural clay ceramic as an alternative proton exchange membrane and its application in microbial fuel cell. Ionics, 26(6), 3061–3072, IF: 2.203, Citation: Nil
 92. Indrasis Das, M.M. Ghangrekar, Rajiv Satyakam, Piyush Srivastava, Swarup Khan, H N Pandey (2020). A 720 L stacked-microbial fuel cell based onsite sanitary wastewater treatment system: a case study. Journal of Hazardous, Toxic, and Radioactive Waste, ASCE. 2020, 24(3): 04020025, 1-7, DOI: 10.1061/(ASCE)HZ.2153-5515.0000518. IF:1.120
 93. Rajesh P.P., Md. T. Noori, Ghangrekar M.M. (2020). Improving performance of microbial fuel cell by using polyaniline coated carbon felt anode. Journal of Hazardous, Toxic, and Radioactive Waste, ASCE. 2020, 24(3): 04020024, 1-7, DOI: 10.1061/(ASCE)HZ.2153-5515.0000512. IF:1.120
 94. Md. T. Noori, G. D. Bhowmick, B. R. Tiwari, Indrasis Das, M. M. Ghangrekar and C. K. Mukherjee (2020). Utilization of waste medicine wrappers as an efficient low-cost electrode material for microbial fuel cell. Environmental Technology. 41(10), pp. 1209-1218. IF=1.666, Citation: 2
 95. Deepak A. Jadhav, M.M. Ghangrekar (2020). Optimizing the proportion of pure and mixed culture in inoculum to enhance the performance of microbial fuel cells. International Journal of Environmental Technology and Management. Vol. 23, No. 1, 50-67. Citation: Nil
 96. Indrajit Chakraborty, Srinivas Sathe, C Niranjit Khuman, M.M. Ghangrekar (2020). Bioelectrochemically powered remediation of xenobiotic compounds and heavy metal toxicity using microbial fuel cell and microbial electrolysis cell. Journal Materials Science for Energy Technologies. Volume 3, 2020, 104-115. Citation: Nil
 97. Sovik Das, M. M. Ghangrekar (2020). Tungsten oxide as electrocatalyst for improved power generation and wastewater treatment in microbial fuel cell. Environmental Technology. 41(19), 2546-2553. <https://doi.org/10.1080/09593330.2019.1575477>. IF=1.666, Citation: Nil
 98. Sovik Das, Indrajit Chakraborty, Rajesh P.P., Ghangrekar M.M. (2020). Performance evaluation of microbial fuel cell operated with Pd or MnO₂ as cathode catalyst and *Chaetoceros* pre-treated anodic inoculum. ASCE Journal of hazardous, toxic and radioactive waste. 24(3): 04020009, 1-7; DOI: 10.1061/(ASCE)HZ.2153-5515.0000501. IF: 1.120
 99. Chabungbam Niranjit Khuman, Gourav Dhar Bhowmick, M.M. Ghangrekar, Arunabha Mitra (2020). Effect of using ceramic separator on the performance of hydroponic constructed wetland-microbial fuel cell. Journal of Hazardous, Toxic, and Radioactive Waste, ASCE. 24(3): 04020005, 1-6; DOI: 10.1061/(ASCE)HZ.2153-5515.0000499. IF:1.120
 100. Sovik Das, Ashish Mishra, M.M. Ghangrekar (2020). Production of hydrogen peroxide using various metal-based catalysts in electrochemical and bioelectrochemical. Journal of Hazardous, Toxic, and Radioactive Waste, ASCE. 24(3): 06020001, 1-6. DOI: 10.1061/(ASCE)HZ.2153-5515.0000498. IF:1.120
 101. Geetanjali Yadav, Iti Sharma, Makarand Ghangrekar, Ramkrishna Sen (2020). A live bio-cathode to enhance power output steered by bacteria-microalgae synergistic metabolism in microbial fuel cell. Journal of Power Sources. 449, 227560, <https://doi.org/10.1016/j.jpowsour.2019.227560>, IF: 8.247, Citation: Nil
 102. Indrajit Chakraborty, Sovik Das, Brajesh Dubey, M.M. Ghangrekar (2020). Novel low cost proton

- exchange membrane made from sulphonated biochar for application in microbial fuel cells. *Materials Chemistry and Physics*, 239, 1 January 2020, 122025. IF: 2.781; Citation: 6
103. Gourav Dhar Bhowmick, Sovik Das, M.M. Ghangrekar (2019). Improved wastewater treatment by combined system of microbial fuel cell with activated carbon/TiO₂ cathode catalyst and membrane bioreactor. *Journal of The Institution of Engineers (India): Series A*. 100(4), 675-682, Citation: 1
 104. G. D. Bhowmick, E. Kibena-Pöldsepp, L. Matisen, M. Merisalu, M. Kook, M. Käärrik, J. Leis, V. Sammelselg, A. Mitra, M. M. Ghangrekar, and K. Tammeveski (2019). Multi-walled carbon nanotube and carbide-derived carbon supported metal phthalocyanines as cathode catalysts for microbial fuel cell application. *Sustainable Energy & Fuels*. 4(19), pp. 1077-1085. Impact factor: 4.912. Citation: Nil
 105. Swati Das, Sovik Das, M.M. Ghangrekar (2019). Quorum sensing mediated signals: A promising multi-functional modulators for separately enhancing algal yield and power generation in microbial fuel cell. *Bioresource Technology*, 294, December 2019, 122138. Impact factor: 7.539, Citation: 2
 106. Noori Md. T., Tiwari B.R., Ghangrekar M.M., Min B. (2019). Azadirachta indica leaf extract assisted chemical-free synthesis of CoO-NiO mixed metal oxide for application in microbial fuel cell as cathode catalyst. *Sustainable Energy & Fuels*. 3(12), pp. 3430-3440, IF: 4.912. Citation: 1
 107. Sovik Das, Indrasis Das, Swati Das, M.M. Ghangrekar (2019). Application of bioelectrochemical systems for carbon dioxide sequestration and concomitant valuable recovery: A review. *Materials Science for Energy Technologies*. 2(3), December 2019, 687-696. Citation Nil
 108. G. D. Bhowmick, I. Chakraborty, M. M. Ghangrekar, A. Mitra (2019). TiO₂/Activated carbon photo cathode catalyst exposed to ultraviolet radiation to enhance the efficacy of integrated microbial fuel cell-membrane bioreactor. *Bioresource Technology Reports*. 7,100303. Citation: 1
 109. Md. T. Noori, Booki Min, M.M. Ghangrekar, C.K. Mukherjee (2019). Biofouling Effects on the Performance of Microbial Fuel Cells and Recent Advances in Biotechnological and Chemical Strategies for Mitigation. *Biotechnology Advances*. 37(8), 107420; <https://doi.org/10.1016/j.biotechadv.2019.107420>; IF: 12.831, Citations: 11
 110. G. D. Bhowmick, Sovik Das, K. Adhikary, M. M. Ghangrekar and A. Mitra (2019). Using Rhodium as a Cathode Catalyst for Enhancing Performance of Microbial Fuel Cell. *International Journal of Hydrogen Energy*. 44 (2019) 22218- 22222. IF: 4.084 , Citation: 2
 111. Anaparthi Ganesh Kumar, Sayantani Saha, Hartmut Komber, Bikash Ranjan Tiwari, Makarand M. Ghangrekar, Brigitte Voit, Susanta Banerjee (2019). Trifluoromethyl and Benzyl Ether Side Groups Containing Novel Sulfonated Co-Poly(ether imide)s: Application in Microbial Fuel Cell. *European Polymer Journal*. 118, pp. 451-464. IF: 3.621, Citation Nil
 112. Vignesh Ahilan, Camila Cabral de Barros, Gourav Dhar Bhowmick, Makarand M. Ghangrekar, M. Mangir Murshed, Michaela Wilhelm, Kurosch Rezwan (2019). Microbial fuel cell performance of graphitic carbon functionalized porous polysiloxane based ceramic membranes. *Bioelectrochemistry*. 129, 259-269. <https://doi.org/10.1016/j.bioelechem.2019.06.002>. IF: 4.474, Citation Nil
 113. Vignesh Ahilan, Gourav Dhar Bhowmick, Makarand M. Ghangrekar, Michaela Wilhelm, Kurosch Rezwan (2019). Tailoring Hydrophilic and Porous Nature of Polysiloxane Derived Ceramer and Ceramic Membranes for Enhanced Bioelectricity Generation in Microbial Fuel Cell. *IONICS*. 25(12), pp. 5907-5918. IF=2.347. <https://doi.org/10.1007/s11581-019-03083-5>. Citations: 2
 114. Neethu B., H. Pradhan, Pankaj Sarkar and M. M. Ghangrekar (2019). Application of ion exchange membranes in enhancing algal production alongside desalination of saline water in microbial fuel cell. *MRS Advances*. 4(19), pp. 1077-1085. <http://dx.doi.org/10.1557/adv.2019.170>. Citation: 2
 115. Indrasis Das, Sovik Das, Indrajit Chakraborty, M. M. Ghangrekar (2019). Bio-Refractory Pollutant Removal Using Microbial Electrochemical Technologies: A Short Review. *J. Indian Chemical Society* 96 (2019) 493–497. Citation: Nil
 116. B. Neethu, G. D. Bhowmick, M. M. Ghangrekar (2019). A novel proton exchange membrane

- developed from clay and activated carbon derived from coconut shell for application in microbial fuel cell. *Biochemical Engineering Journal*. 148, 170-177. IF=3.226, Citation: 2
117. G. D. Bhowmick, Sovik Das, H. K. Verma, B. Neethu, M. M. Ghangrekar (2019). Improved performance of microbial fuel cell by using conductive ink printed cathode containing Co_3O_4 or Fe_3O_4 . *Electrochimica Acta*. 310, 173-183. IF=5.116; Citation: 7.
 118. Thamires Canuto de Almeida e Silva, Gourav Dhar Bhowmick, Makarand Madhao Ghangrekar, Arunabha Mitra, Michaela Wilhelm and Kurosch Rezwan (2019). SiOC-based polymer derived-ceramic porous anodes for Microbial Fuel Cells. *Biochemical Engineering Journal*. 148, 29-36. IF=3.226; Citation: 2
 119. Knawang Chhunji Sherpa, Makarand Madhao Ghangrekar & Rintu Banerjee (2019). Optimization of saccharification of enzymatically pretreated sugarcane tops by response surface methodology for ethanol production. *Biofuels*, Taylor & Francis. 10(1), 73-80, Citation: 04, IF=0.784
 120. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2019). Biogas Production from Partially Digested Septic Tank Sludge and its Kinetics. *Waste and Biomass Valorization*. 10:387–398, Citation: 01, IF=1.874
 121. Sreemoyee Ghosh Ray and Ghangrekar M.M. (2019). Comprehensive review on treatment of high-strength distillery wastewater in advanced physico-chemical and biological degradation pathways. *International Journal of Environmental Science and Technology*. 16(1), 527-546. IF=2.037; Citation: 3
 122. Ranjita Bhande, Md. T. Noori, M.M. Ghangrekar (2019). Performance Assessment of Sediment Microbial Fuel Cell by Enriching the Sediment with Cellulose: Kinetics of Cellulose Degradation. *Environmental Technology & Innovation*. 13, 189-196. IF: 2.800, Citation: 3
 123. K. K. Türk, I. Kruusenberg, E. Kibena-Pöldsepp, G. D. Bhowmick, M. Kook, K. Tammeveski, L. Matisen, M. Merisalu, V. Sammelselg, M. M. Ghangrekar, A. Mitra, R. Banerjee (2018). Novel multi walled carbon nanotube based nitrogen impregnated Co and Fe cathode catalysts for improved microbial fuel cell performance. *International Journal of Hydrogen Energy*, 43(51), 23027-23035. Citation: 17, IF=4.229
 124. Indrasis Das; Md. T. Noori; G. D. Bhowmick; M.M. Ghangrekar (2018). Synthesis of Tungstate oxide/Bismuth Tungstate composite and application in microbial fuel cell as superior low-cost cathode catalyst than platinum. *Journal of Electrochemical Society*. 43 (41), 19196-19205, IF=3.662; Citation: 6
 125. Md. T. Noori, B.R, Tiwari, C.K. Mukherjee, M.M. Ghangrekar (2018). Enhancing the performance of microbial fuel cell using Ag–Pt bimetallic alloy as cathode catalyst and anti-biofouling agent. *International Journal of Hydrogen Energy*. 43(42), pp. 19650-19660. Citation: 07, IF=4.229
 126. A.S. Mathuriya, D.A. Jadhav, M.M. Ghangrekar (2018). Architectural Adaptations in Microbial Fuel Cells. *Applied Microbiology and Biotechnology*, 102(22), 9419-9432. Citation: 06, IF=3.34
 127. Anusha G., Noori Md. T., Ghangrekar M.M. (2018). Application of silver-tin dioxide composite cathode catalyst for enhancing performance of microbial desalination cell. *Materials Science for Energy Technologies*. 1 (2), 188-195. Citation: Nil
 128. Indrasis Das, Md. T. Noori, G. D. Bhowmick (2018). Application of Low-Cost Transition Metal Based $\text{Co}_0.5\text{Zn}_0.5\text{Fe}_2\text{O}_4$ as Oxygen Reduction Reaction Catalyst for Improving Performance of Microbial Fuel Cell. *MRS Advances*. 3(55), pp. 3149-3154, Citation: Nil
 129. Md. T. Noori, G. D. Bhowmick, B. R. Tiwari, O. M. Ghangrekar, M. M. Ghangrekar and C. K. Mukherjee (2018). Carbon supported Cu-Sn bimetallic alloy as an excellent low-cost cathode catalyst for enhancing oxygen reduction reaction in microbial fuel cell. *Journal of The Electrochemical Society*. 165 (9), F621-F628. Citation: 16; IF=3.662.
 130. Indrasis Das; Md. T. Noori; Gourav Dhar Bhowmick; M.M. Ghangrekar (2018). Synthesis of bimetallic iron ferrite $\text{Co}_0.5\text{Zn}_0.5\text{Fe}_2\text{O}_4$ as a superior catalyst for oxygen reduction reaction to replace noble metal catalysts in microbial fuel cell. *International Journal of Hydrogen Energy*. 43(41), 19196-19205. IF=4.229; Citation: 12

131. Rajesh P.P.; Noori Md. T., Ghangrekar M.M. (2018). Pre-treatment of anodic inoculum with nitroethane to improve the power production of a microbial fuel cell. *Water Science and Technology*. 77(10), 2491-2496. IF=1.247; Citation: 8
132. Anaparthi Ganesh Kumar, Asheesh Singh, Hartmut Komber, Brigitte Voit, Bikash Ranjan Tiwari, Md. Tabish Noori, Makarand M. Ghangrekar, and Susanta Banerjee (2018). Novel Sulfonated Copoly(ether imide)s Containing Trifluoromethyl, Fluorenyl and Hydroxyl Groups for Enhanced Proton Exchange Membrane Properties: Application in Microbial Fuel Cell. : *ACS Appl. Mater. Interfaces* 2018, 10, 14803–14817. Citation: 10. IF=8.097
133. Sayantani Saha, Anaparthi Ganesh Kumar, Md. Tabish Noori, Susanta Banerjee, Makarand Madhao Ghangrekar, Hartmut Komber, Brigitte Voit (2018). New Crosslinked Sulfonated Polytriazoles: Proton Exchange Properties and Microbial Fuel Cell Performance. *European Polymer Journal*, 103, pp. 322-334. Citation: 03, IF=3.531
134. Starkl, M., Anthony, J., Aymerich, E., Ghangrekar M.M., Kazami, A., Philip, L., Singh, A. (2018). Interpreting best available technologies more flexibly: A policy perspective for municipal wastewater management in India and other developing countries. *Environmental Impact Assessment Review*. 71, 132–141. Citation: 08, IF=3.054.
135. G. D. Bhowmick, Md. T. Noori, Indrasis Das, Neethu B., M. M. Ghangrekar and A. Mitra (2018). Bismuth doped TiO₂ as an excellent photocathode catalyst to enhance the performance of microbial fuel cell. *International Journal of Hydrogen Energy*. 43(15), 7501-7510. Citation: 25, IF=4.229
136. Jana, P.S., Ghangrekar, M.M., Leech, D. (2018). Comparison of performance of an earthen plate and nafion as membrane separators in dual chamber microbial fuel cells. *Environmental Engineering and Management Journal*, 17(2), 451-458. IF=1.334; Citation: Nil
137. Neethu. B, G. D. Bhowmick, M. M. Ghangrekar (2018). Enhancement of Bioelectricity Generation and Algal Productivity in Microbial Carbon-Capture Cell using Low Cost Coconut Shell as Membrane Separator. *Biochemical Engineering Journal*. 133 (2018) 205–213. Citation: 08, IF=3.226
138. Iti Sharma, M.M. Ghangrekar (2018). Screening anodic inoculums for microbial fuel cells by quantifying bioelectrogenic activity using tungsten trioxide quantum rods. *Bioresource Technology*. 252, 66-71. IF=7.539; Citation: 02
139. Sovik Das, M.M. Ghangrekar (2018). Value-added product recovery and carbon dioxide sequestration from biogas using microbial electrosynthesis. *Indian Journal of Experimental Biology (IJEB)*. 56(7), July 2018, 470-478. Citation: 02
140. Sovik Das, Pritha Chatterjee, M.M. Ghangrekar (2018). Increasing methane content in biogas and simultaneous value added product recovery using microbial electrosynthesis. *Water Science and Technology*. 77(5), 1293-1302. Citation: 07, IF=1.247.
141. Iti Sharma, M.M. Ghangrekar (2018). Evaluating suitability of tungsten, titanium and stainless steel wires as current collector in microbial fuel cell. *Water Science and Technology*, 77(4), 999-1006. IF=1.247; Citation: 03
142. Noori, Md. T, Bhowmick, G.D., Tiwari, B.R. Ghangrekar, M.M. and Mukherjee, C.K. (2018). Application of Low-Cost Cu–Sn Bimetal Alloy as Oxygen Reduction Reaction Catalyst for Improving Performance of the Microbial Fuel Cell. *MRS Advances*, 3(13), 663-668. Citation: 08
143. Tiwari, B.R., Ghangrekar, M.M. (2018). Electricity production during distillery wastewater treatment in a microbial fuel cell equipped with low cost PVA-Nafion-borosilicate membrane. *Journal of Clean Energy Technologies*. 6(2), 155-158. Citation: 02
144. Tiwari, B.R., Noori, Md.T., Ghangrekar, M.M. (2018). Enhancing performance of microbial fuel cell treating distillery wastewater using carbon supported Nickel-phthalocyanine/MnO_x as novel cathode catalyst. *MRS Advances*. 3(13), 657-662. Citation: 1
145. Rajesh, P.P., Noori, M.T., and Ghangrekar, M.M. (2018). Graphene oxide/Polytetrafluoroethylene composite anode and Chaetoceros pre-treated anodic inoculum for enhancing the performance of

- microbial fuel cell. *Journal of Clean Energy Technologies*, 6(3), 236-240. Citation: 06
146. Noori, Md. T, Paul, D., Ghangrekar, M.M. and Mukherjee, C.K. (2018). Enhancing the performance of sediment microbial fuel cell using graphene oxide – zeolite modified anode and V_2O_5 catalyzed cathode. *Journal of Clean Energy Technologies*, 6(2), 150-154. Citation Nil
 147. Sherpa, K.C., Ghangrekar, M.M., Banerjee, R. (2018). A green and sustainable approach on statistical optimization of laccase mediated delignification of sugarcane tops for enhanced saccharification. *Journal of Environmental Management*; 217, 700-709. Citation: 05, IF=4.005.
 148. Diplina Paul, Md. T. Noori, P.P. Rajesh, Makarand Ghangrekar, Arunabha Mitra (2018). Modification of carbon felt anode with Graphene oxide-Zeolite composite for enhancing the performance of microbial fuel cell. *Sustainable Energy Technologies and Assessments*. 26, 77-82. DOI: 10.1016/j.seta.2017.10.001, IF: 3.456, Citation: 19
 149. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2018). Sludge granulation in a UASB-moving bed biofilm hybrid reactor for efficient organic matter removal and nitrogen removal in biofilm reactor. *Environmental Technology*. 39(3), pp. 298-307. IF=1.666; Citation: 1
 150. Anju Singh, Sheetal Jaisingh Kamble, Megha Sawant, Yogita Chakravarthy, Absar Kazmi, Enrique Aymerich, Markus Starkl, Makarand Ghangrekar, Ligy Philip (2018). Technical, hygiene, economic and life cycle assessment of full scale moving bed biofilm reactors for wastewater treatment in India. *Environmental Science and Pollution Research*. 25 (3), 2552-2569. Citation: 03
 151. Pritha Chatterjee, Donal Leech, M.M. Ghangrekar (2018). A brief review on recent advances in air-cathode microbial fuel cells. *Environmental Engineering and Management Journal*. July 2018, Vol.17, No. 7, 1531-1544. Citation: 03, IF=1.334
 152. Pritha Chatterjee, M.M. Ghangrekar (2017). A systematic review on bio-electrochemical systems research. *Current Pollution Reports*, 3(4), pp 281–288. Citation: 01; IF: 3.762
 153. Sreemoyee Ghosh Ray and Makarand M Ghangrekar (2017). Mechanisms of Charge Transfer during Bio-Cathodic Electro-Synthesis of CO_2 -Neutral Methane. *Adv Biotech & Micro*. 2017; 3(5): 555619. DOI: 10.19080/AIBM.2017.03.555625.
 154. B.R. Tiwari, Md. T. Noori, M.M. Ghangrekar (2017). Carbon Supported Nickel-Phthalocyanine/MnOx as Novel Cathode Catalyst for Microbial Fuel Cell Application. *International Journal of Hydrogen Energy*, 42(36), pp. 23085-23094. Citation: 23, IF=4.229
 155. S.B. Neethu, M.M. Ghangrekar (2017). Electricity Generation Through a Photo Sediment Microbial Fuel Cell Using Algae at the Cathode. *Water Science and Technology*. 76(12), pp. 3269-3277. Citation: 08, IF=1.247.
 156. Pritha Chatterjee, M.M. Ghangrekar (2017). Biomass granulation in an upflow anaerobic sludge blanket reactor treating 500 m³/day low-strength sewage and post treatment in high-rate algal pond. *Water Science and Technology*, 76(5), pp. 1234-1242. IF=1.247. Citation: Nil
 157. Pratik Kumar, Pritha Chatterjee, M.M. Ghangrekar (2017). Fouling Resistant Nitrogen Doped Carbon Powder with Amino-Tri-Methylene-Phosphate Cathode for Microbial Fuel Cell. *Materials for Renewable and Sustainable Energy*. (2017), 6(2):9 (1-11). Citation: Nil
 158. D.A. Jadhav, P.A. Deshpande, M.M. Ghangrekar (2017). Enhancing performance of single-chambered microbial fuel cell using manganese/palladium and zirconium/palladium composite cathode catalysts. *Bioresource Technology*, 238, pp. 568-574. Citation: 10, IF=7.539
 159. Dipak Jadhav, Sumat C. Jain, M.M. Ghangrekar (2017). Simultaneous wastewater treatment, algal biomass production and electricity generation in clayware microbial carbon capture cells. *Applied Biochemistry and Biotechnology*. 183(3), 1076-1092. Citation: 01, IF=1.797.
 160. D.A. Jadhav, S. Ghosh Ray, M. M. Ghangrekar (2017). Third generation in bio-electrochemical system research - a systematic review on mechanisms for recovery of valuable by-products from wastewater. *Renewable and Sustainable Energy Reviews*. 76, 1022-1031. Citation: 27; IF=9.184.
 161. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2017). Disinfection of secondary treated sewage using ZnO-Ag nanoparticles coated Chitosan beads to facilitate reuse. *Journal of Chemical Technology &*

- Biotechnology, 92(9), pp. 2334-2341. Citation: 07, IF=2.587.
162. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2017). Biotic conversion of sulphate to sulphide and abiotic conversion of sulphide to sulphur in a microbial fuel cell using cobalt oxide octahedrons as cathode catalyst. *Bioprocess and Biosystems Engineering*. 40(5), 759-768. Citation: 06, IF=2.139.
 163. Ghosh Ray S. Noori Md. T., Ghangrekar M.M. (2017). Novel application of peptaibiotics derived from *Trichoderma* sp. for methanogenic suppression and enhanced power generation in microbial fuel cell. *RSC advances*. 2017, 7, 12975 - 12975. Citation: 03, IF=2.936.
 164. Noori MD. T., Mukherjee C.K., Ghangrekar M.M. (2017). Enhancing performance of microbial fuel cell by using graphene supported V₂O₅-nanorod catalytic cathode *Electrochimica Acta*. 228, 513-521. Citation: 51, IF=5.116
 165. Manaswini Behera, Makarand Madhao Ghangrekar (2017). Optimization of operating conditions for maximizing power generation and organic matter removal in microbial fuel cell. *Journal of Environmental Engineering, ASCE*. 143(4), 04016090 DOI: [http://dx.doi.org/10.1061/\(ASCE\)EE.1943-7870.0001179](http://dx.doi.org/10.1061/(ASCE)EE.1943-7870.0001179). Citation: 06, IF=1.396.
 166. T.K. Sajana, M.M. Ghangrekar, A. Mitra (2017). A Review on In situ Bio-reclamation of Pond Water Quality Using Sediment Microbial Fuel Cell. *ASCE's Journal of Hazardous, Toxic, and Radioactive Waste*. DOI: [http://dx.doi.org/10.1061/\(ASCE\)HZ.2153-5515.0000339](http://dx.doi.org/10.1061/(ASCE)HZ.2153-5515.0000339). 21(2), 04016022. Citation: 06. IF:1.120
 167. T.K. Sajana, M.M. Ghangrekar, Arunabha Mitra (2017). Influence of electrode material on performance of sediment microbial fuel cell remediating aquaculture water. *Environmental Engineering and Management Journal*. 16(2), pp. 421-429. Impact Factor: 1.008. Citation: 03, IF=1.334.
 168. MD. T. Noori, S.C. Jain, M.M. Ghangrekar, C.K. Mukherjee (2016). Biofouling inhibition and enhancing performance of microbial fuel cell using silver nano-particles as fungicide and cathode catalyst. *Bioresource Technology*. 220, 183-189. Impact factor: 7.539, Citation: 27.
 169. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2016). Organic matter and nitrogen removal in a hybrid upflow anaerobic sludge blanket - moving bed biofilm and rope bed biofilm reactor. *Journal of Environmental Chemical Engineering*. 4, 3240–3245. SNIP: 1.428, Citation: 05
 170. Dipak Jadhav, Sumat C. Jain, M.M. Ghangrekar (2016). Cow's urine as a yellow gold for bioelectricity generation in low cost clayware microbial fuel cell. *Energy*. 113, 76-84. Impact Factor: 1.772. Citation: 10
 171. Pritha Chatterjee, M.M. Ghangrekar, S. Rao (2016). Development of anammox process for removal of nitrogen from wastewater in a novel self-sustainable biofilm reactor. *Bioresource Technology*, 218, 723-730. Impact factor: 7.539. Citation: 13
 172. Bikash R. Tiwari, Md. T. Noori, M.M. Ghangrekar (2016). A novel low cost polyvinyl alcohol-Nafion-borosilicate membrane separator for microbial fuel cell. *Materials Chemistry and Physics*. 182, 86-93. Impact Factor : 2.101 Citation: 30
 173. A. N. Ghadge, M.M. Ghangrekar, Keith Scott (2016). Maximum anode chamber volume and minimum anode area for supporting electrogenesis in microbial fuel cells treating wastewater. *Journal of Renewable and Sustainable Energy*. 8 (4), 044302. Impact Factor: 1.661, Citation: 5
 174. Pritha Chatterjee, M.M. Ghangrekar (2016). Low efficiency of sewage treatment plants due to unskilled operations in India. *Environmental Chemistry Letters*. 14(3), 407-416, Impact factor: 2.573. Citation: 05
 175. Anil N. Ghadge, Dipak A. Jadhav, Makarand M. Ghangrekar (2016). Wastewater treatment in pilot-scale microbial fuel cell using multi-electrode assembly with ceramic separator. *Environmental Progress & Sustainable Energy*. DOI: 10.1002/ep.12403. Impact factor: 1.631. 35(6), pp. 1809-1817. Citation: 4
 176. MD. T. Noori, M.M. Ghangrekar, C.K. Mukherjee (2016). V₂O₅ microflower decorated cathode for enhancing power generation in air-cathode microbial fuel cell treating fish market wastewater.

- International Journal of Hydrogen Energy. 41 (5), 3638-3645. Impact Factor: 3.205. Citation: 45
177. I. Sharma, M.M. Ghangrekar, R.C. Biswal, K. Biswas (2016). Bioelectrogenesis detection of inoculums using electrochromic tungsten oxide and performance evaluation in microbial fuel cells. The Electrochemical Society Journals. 163(3), F183-F189. Impact Factor 3.266. 163 (3), F183-F189. Citation: 04
 178. S. Ghosh Ray, M. M. Ghangrekar (2016). Biodegradation kinetics of thin-stillage treatment by *Aspergillus awamori* and characterization of recovered chitosan. Applied Microbiology and Biotechnology. 100 (4), 1955-1965. Impact Factor: 3.337, Citation: 04
 179. Jadhav D.A., Ghangrekar M.M. (2016). Effective ammonium removal by anaerobic oxidation in microbial fuel cells. Environmental Technology. 36 (6), 767-775. Impact Factor: 1.197. Citations: 18
 180. Paul D., Mitra A., Ghangrekar M. M. (2016). Sediment microbial fuel cell as an avenue for in situ bioremediation of aquatic sediment: A review. Precision Farming and Resource Management. ISBN: 978-93-86256-29-4. 384-392.
 181. I. Sharma and M.M Ghangrekar (2015). Challenges for bacterial population in Microbial Fuel Cells surrounded by unwittingly co-inoculated inhibitors, Journal of Biotechnology & Biomaterials, 5(6) 238. 6th world congress on biotechnology, 05-07 October 2015, New Delhi, India
 182. Harapriya Pradhan, Sumat C. Jain, Ghangrekar M.M. (2015). Simultaneous removal of phenol and dissolved solids from wastewater using multi-chambered microbial desalination cell. Applied Biochemistry and Biotechnology, 177(8), 1638-1653. Impact Factor: 1.735. Citations: 08
 183. Jadhav, D.A., Ghadge, A.N., Ghangrekar, M.M. (2015). Enhancing the power generation in microbial fuel cells with effective utilization of goethite recovered from mining mud as anodic catalyst. Bioresource Technology, 191, 110-116. Impact factor: 7.539. Citations: 27
 184. Harapriya Pradhan, Omkar Shinde, M.M. Ghangrekar, Supriya Sarkar (2015). Bioremediation of Steel Plant Wastewater and Improved Electricity Generation in Bio-Electrochemical Desalination Cell. Advanced Materials Research Journal. 648-651. (<http://www.ttp.net/978-3-03835-678-3/15.html>)
 185. Harapriya Pradhan, Ghangrekar M.M. (2015). Organic matter and dissolved salts removal in a microbial desalination cell with different orientation of ion exchange membranes. Desalination and Water Treatment, 54 (6), 1568-1576. Impact Factor: 1.272, Citations: 08
 186. B.R. Tiwari, M.M. Ghangrekar (2015). Enhancing electrogenesis by pre-treatment of mixed anaerobic sludge to be used as inoculum in microbial fuel cell. Energy and Fuels, 29(5), 3518-3524. Impact factor: 2.835 Citation: 27
 187. Pandit, Soumya; Khilari, Santimoy; Ghangrekar, Makarand M.; Pradhan, Debabrata; Das, Debabrata (2015). Reduction of start-up time through bioaugmentation process in microbial fuel cells using a newly isolated microbial strain in anode. Water Science and Technology. 72(1), 106-115. Impact Factor: 1.212. Citation: 09
 188. A.N. Ghadge, M.M. Ghangrekar (2015). Development of low cost ceramic separator using mineral cation exchanger to enhance performance of microbial fuel cells. Electrochimica Acta. 166, 320-328. Impact Factor: 4.504. Citations: 42
 189. A.N. Ghadge, D.A. Jadhav, H. Pradhan, M.M. Ghangrekar (2015). Enhancing waste activated sludge digestion and power production using hypochlorite as catholyte in clayware microbial fuel cell. Bioresource Technology, 182, 225-231. Impact factor: 7.539. Citations: 30
 190. A.N. Ghadge, M.M. Ghangrekar (2015). Performance of low cost scalable air-cathode microbial fuel cell made from clayware separator using multiple electrodes. Bioresource Technology, 182, 373-377. Impact factor: 7.539. Citations: 33
 191. Rajesh P.P., D.A. Jadhav, M.M. Ghangrekar (2015). Improving performance of microbial fuel cell while controlling methanogenesis by *Chaetoceros* pretreatment of anodic inoculum. Bioresource Technology, 180, 66-71. Impact factor: 7.539. Citations: 31
 192. S. Ghosh Ray, M.M. Ghangrekar (2015). Enhancing organic matter removal, biopolymer recovery

- and electricity generation from distillery wastewater by combining fungal fermentation and microbial fuel cell. *Bioresource Technology*, 176, 8-14. Impact factor: 7.539. Citations: 32
193. Harapriya Pradhan, Ghangrekar M.M. (2014). Multi-chamber microbial desalination cell for improved organic matter and dissolved solids removal from wastewater. *Water Science and Technology*, 70(12), 1948-1954. Impact Factor: 1.212. Citation: 05.
 194. Rajesh P.P., Noori Md. T., M.M. Ghangrekar (2014). Controlling methanogenesis and improving power production of microbial fuel cell by lauric acid dosing. *Water Science and Technology*. 70(8), 1363-1369. Impact Factor: 1.212. Citations: 12.
 195. Sumaraj and Ghangrekar M. M (2014). Development of microbial fuel cell as biosensor for detection of organic matter from wastewater. *Recent Research in Science and Technology* 6(1): 162-166. ISSN: 2076-5061.
 196. T.K. Sajana, M.M. Ghangrekar, Arunabha Mitra (2014). Effect of operating parameters on the performance of sediment microbial fuel cell treating aquaculture water. *Aquacultural Engineering*, 61, 17-26. Impact Factor: 1.381. Citations: 23
 197. D.A. Jadhav, A.N. Ghadge, M.M. Ghangrekar (2014). Simultaneous organic matter removal and disinfection of wastewater with enhanced power generation in microbial fuel cell. *Bioresource Technology*. 163, 328-334. Impact factor: 7.539. Citation: 30
 198. Pritha Chatterjee, M.M. Ghangrekar (2014). Design of clayware separator-electrode assembly for treatment of wastewater in microbial fuel cells. *Applied Biochemistry and Biotechnology*. 173, 378–390. Impact Factor: 1.606. Citation: 13.
 199. Anil N. Ghadge, Mypati Sreemannarayana, Narcis Duteanu, Makarand. M. Ghangrekar (2014). Influence of separator characteristics on the performance microbial fuel cells. *Journal of Electrochemical Science and Engineering*. 4(4), 315-326 doi: 10.5599/jese.2013.0047
 200. Anil Ghadge, M.M. Ghangrekar, Soumya Pandit and Debabrata Das. (2014). Performance of air cathode earthen pot microbial fuel cell for simultaneous wastewater treatment with bioelectricity generation. *International Journal of Environmental Technology and Management (IJETM)*. Vol. 17, Nos. 2/3/4, 2014, 143-153. SJR:0.2, Citation: 01
 201. Girija S. Mishra, A. Mitra, R. Banerjee, M.M. Ghangrekar (2014). Comparative pretreatment method for efficient enzymatic hydrolysis of *Salvinia cucullata* and sewage treatment in ponds containing this biomass. *Clean Technologies and Environmental Policy*. 16 (8), 1787-1794. Impact Factor: 1.827. Citation: 04.
 202. Soumya Pandit, Vinay Patel, Ghangrekar M.M. and Das D. (2014). Wastewater as anolyte for bioelectricity generation in graphite granule anode single chambered microbial fuel cell: effect of current collector. *Int. J. Environmental Technology and Management*. Vol. 17, Nos. 2/3/4, 2014, 252-267. Citation: 03
 203. T.K. Sajana, M.M. Ghangrekar, A. Mitra (2014). Effect of presence of cellulose in the freshwater sediment on the performance of sediment microbial fuel cell. *Bioresource Technology*. 155, 84-90. Impact Factor: 7.539. Citations: 33
 204. Jadhav D.A., Ghadge A.N., Debika Mondal, Ghangrekar M.M. (2014). Comparison of oxygen and hypochlorite as cathodic electron acceptor in microbial fuel cells. *Bioresource Technology*. 154, 330-335. Impact Factor: 7.539. Citation: 46.
 205. Pritha Chatterjee, M.M. Ghangrekar (2014). Preparation of a fouling resistant sustainable cathode for a single chambered microbial fuel cell. *Water Science and Technology*. 69(3), 634-639. Impact Factor: 1.102. Citation: 11
 206. Jadhav, D.A., Ghangrekar, M.M. (2014). Effect of salinity, acetate addition and alteration of sediment on performance of benthic microbial fuel cells. *Recent Advances in Bio-energy Research*, 3, 404-418. Citation: 02
 207. P. Sridhar, M.M. Ghangrekar, R.D. Tyagi, R.Y. Surampalli (2013). Effect of Cathode Biofilm and Non-feeding condition on Performance of Membrane-less Microbial Fuel Cell Operated under

- Different Organic. International Journal of Environmental Protection (IJEP). Dec. 2013, Vol. 2 Iss. 4, PP. 8-14
208. T.K. Sajana, M.M. Ghangrekar, A. Mitra (2013). Application of sediment microbial fuel cell for in situ reclamation of aquaculture pond water quality. *Aquacultural Engineering*. 57 (2013) 101– 107, Impact Factor:1.406. Citation: 20.
 209. Khilari, Santimoy; Pandit, Soumya; Ghangrekar, Makarand M.; Pradhan, Debabrata; Das, Debabrata (2013). Graphene oxide impregnated PVA-STA composite polymer electrolyte membrane separator for power generation in single chambered Microbial Fuel Cell. *Industrial & Engineering Chemistry Research*. 52 (33), pp. 11597-11606. Impact Factor 2.145, Citation: 42
 210. Santimoy Khilari, Soumya Pandit, M. M. Ghangrekar, Debabrata Das, Debabrata Pradhan (2013). Graphene supported a-MnO₂ nanotubes as a cathode catalyst for improved power generation and wastewater treatment in single-chambered microbial fuel cells. *RSC Advances*, 3, 7902–7911. Impact Factor 2.562. Citation: 70.
 211. A. N. Ghadge, Harapriya Pradhan, Sriranjani Prasad, and M. M. Ghangrekar (2013). Enhancing Activity of Electrogenic Bacteria in Microbial Fuel Cell by 2-Bromoethanesulphonate Dosing. *International Journal of Engineering Research and Technology*, Vol. 2 (05), 2013, 1086-1091. Impact Factor: 1.76
 212. T.K. Sajana, M.M. Ghangrekar, A. Mitra (2013). Effect of pH and distance between electrodes on the performance of sediment microbial fuel cell. *Water Science Technology*. 68(3), 537-543. Impact Factor: 1.102. Citation: 06.
 213. G. S. Jadhav, Y. D. Jagtap and M. M. Ghangrekar (2013). Dual-Chambered Membrane Microbial Fuel Cell: Limitation On Potential Difference. *International Journal of Engineering Research and Technology*, Vol. 2 (04), 2013, 1638-1643. ISSN 2278 – 0181.
 214. G. S. Jadhav, Y. D. Jagtap and M. M. Ghangrekar (2013). Performance of Earthen Pot Microbial Fuel Cell using Anodic Effluent as Cathodic Electrolyte. *International Journal of Engineering Research and Technology*, Vol. 2 (03), 2013, 1-5, ISSN 2278 – 0181.
 215. Jadhav D.A. and Ghangrekar M. M. (2013), Effect of biofilm transfer on power generation of sediment microbial fuel cell, *International Journal of Environmental Sciences*, Vol. 2 (1), pp. 53-60, January-March 2013. Paper presented in International conference BioPack 2013, Mumbai, India (28 Feb.- 1 March, 2013,)
 216. Pritha Chatterjee, Subrato Mondal, Bikas Tiwari, M.M. Ghangrekar (2013). Performance of microbial fuel cell under psychrophilic and mesophilic temperatures. *International Journal of Emerging Technology and Advanced Engineering*, Vol. 3, Feb 2013, 244-249. Impact Factor:1.0
 217. AN Ghadge, H Pradhan, S Prasad, MM Ghangrekar (2013). Enhancing Activity of Electrogenic Bacteria In Microbial Fuel Cell By 2-Bromoethanesulphonate Dosing. *International Journal of Engineering* 2 (5).
 218. Partha S. Jana, Manaswini Behera, M.M. Ghangrekar (2012). Effect of organic loading rates and proton exchange membrane surface area on the performance of an up-flow cylindrical microbial fuel cell. *Journal of Environmental Science and Engineering*. Vol. 54, No. 1, 1-9. SJR:0.11. Citation: 03
 219. S. Pandit, M.M. Ghangrekar, D. Das (2012). Performance of an anion exchange membrane in association with cathodic parameters in a dual chamber microbial fuel cell. *International Journal of Hydrogen Energy*. 37 (11); 9383–9392. Impact factor: 4.054. Citation: 50.
 220. D.P. Mohapatra, M.M. Ghangrekar, A. Mitra and S.K. Brar. (2012). Sewage treatment in integrated system of UASB reactor and duckweed pond and reuse for aquaculture. *Environmental Technology*, Vol. 33, No. 12, June 2012, 1445–1453. Impact Factor 1.406. Citation: 08
 221. M. Behera and M.M. Ghangrekar (2011). Electricity Generation in Low Cost Microbial Fuel Cell Made Up of Earthenware of Different Thickness. *Water Science Technology*, 64(12), 2468-2473. Impact Factor: 1.122. Citation: 24
 222. M. Behera, S.S.R. Murthy, and M.M. Ghangrekar (2011). Effect of Operating Temperature on

- Performance of Microbial Fuel Cell. *Water Science Technology*, 64(4), 917–922. IF for 2010: 1.122. Citation: 24.
223. Duteanu N.M., Ghangrekar M.M., Erable B., Scott K. (2010). Microbial Fuel Cells – An Option For Wastewater Treatment. *Environmental Engineering and Management Journal*, August 2010, Vol.9 (8), 1069-1087. Citation: 12.
 224. Ghangrekar M.M., Sirigirisetty S.R. Murthy, Manaswini Behera, Narcis Duteanu (2010). Effect of sulfate concentration in the wastewater on microbial fuel cell performance. *Environmental Engineering and Management Journal*. September 2010, Vol.9 (9), 1227-1234. IF:0.88. Citation: 11.
 225. Manaswini Behera, Partha S Jana, Tanaji T More, M M Ghangrekar (2010). Rice mill wastewater treatment in microbial fuel cells fabricated using proton exchange membrane and earthen pot at different pH. *Bioelectrochemistry*. 79 (2), pp. 228-233. IF : 2.652. Citation: 152.
 226. Partha S. Jana, Manaswini Behera, M.M. Ghangrekar (2010). Performance comparison of up-flow microbial fuel cells fabricated using proton exchange membrane and earthen cylinder. *International Journal of hydrogen energy*. 35 (11), 5681-5686. IF : 3.945. Citation: 44.
 227. Duteanu, N., Erable, B., Senthil Kumar, S.M., Ghangrekar, M.M., and Scott, K. (2010). Effect of chemically modified Vulcan XC-72R on the performance of air-breathing cathode in a single chamber Microbial Fuel Cell. *Bioresource Technology*, 101(14), 5250-5255. IF: 7.539. Citation: 59.
 228. More T.T., Ghangrekar M.M. (2010). Improving performance of microbial fuel cell with sonication pre-treatment of mixed anaerobic inoculum sludge. *Bioresource Technology*. 101(2), 562-567. Impact Factor: 7.539. Citation: 42.
 229. Manaswini Behara, Partha S. Jana, and M.M. Ghangrekar (2010). Performance evaluation of low cost microbial fuel cell fabricated with earthen pot with biotic and abiotic cathode. *Bioresource Technology*.101(4), 1183-1189. Impact Factor: 7.539. Citation: 127.
 230. Benjamin Erable, Narcis M Duteanu, M.M. Ghangrekar, Keith Scott (2010). Applications of Electrochemically-Active Biofilm (EAB) Coated onto Electrodes. *Biofouling Journal*. 26(1), 57-71. Impact Factor: 4.415. Citation: 66.
 231. Partha Sarathi Jana and M.M. Ghangrekar (2010) Performance evaluation of a novel up-flow microbial fuel cell for maximizing power. *International Journal of Anaerobic Digestion and Renewable Energy*, International Science Press, 1(1), 65-70.
 232. T.T. More, Manaswini Behera, and M.M. Ghangrekar (2010). Effect of cathode surface area and sonication of inoculum on power production of microbial fuel cell. *International Journal of Anaerobic Digestion and Renewable Energy*, International Science Press, 1(1), 59-64.
 233. Ghangrekar M.M. and Manaswini Behera. (2010). Microbial fuel cell: a technology for wastewater treatment and renewable energy. *Electrical India*, vol 50 (4), 78-85.
 234. Ghangrekar, MM; Shinde, VB; Duteanu, NM (2010). Effect of Wastewater Characteristics and Biomass Growth in Cathode Compartment on Performance of Membrane-less Microbial Fuel Cell. *REVISTA DE CHIMIE*, 61(3), 272-280. Citation: 04.
 235. Behera, M., Ghangrekar, M.M. (2010). Study of the effect of the cathode surface area and sonification of inoculum on the power production of the microbial fuel cell. *Int. J. Anaerobic Digestion Renewable Energy*, 1, pp. 59-64. Citation: 01
 236. Benjamin Erable, Narcis Duteanu, S.M. Senthil Kumar, Yujie Feng, M.M. Ghangrekar, Keith Scott (2009). Nitric acid activation of graphite granules to increase the performance of the non-catalyzed oxygen reduction reaction (ORR) for MFC applications. *Electrochemistry communication*,11(7), 1547-1549. doi:10.1016/j.elecom.2009.05.057. Impact Factor: 4.194. Citation: 66.
 237. Manaswini Behara and M.M. Ghangrekar (2009). Performance of microbial fuel cell in response to change in sludge loading rate at different anodic feed pH. *Bioresource Technology*, 100 (2009) 5114–5121. Impact Factor: 7.539. Citation: 119.
 238. Biju Abraham, M. M. Ghangrekar, Arunabha Mitra (2009). Treatment of sewage and kitchen waste for recovery of methane and biomass and its reuse in fish culture. *Special issue on Waste*

- Management using BioScience and Technology, in International Journal of BioSciences and Technology (IJBST). 2(6): 76-86.
239. Jadhav G. S. and. Ghangrekar M.M. (2009). Performance of microbial fuel cell subjected to variation in pH, temperature, external load and substrate concentration. *Bioresource Technology*. 100, 717–723, Impact Factor: 7.539. Citation: 308.
 240. Puspendu Bhunia and M.M. Ghangrekar (2009). Simulation of Granulation Index and its Utility for Predicting Percentage Granules in UASB Reactors. Special Issue on Microbial immobilization. *World Review of Science, Technology and Sustainable Development (WRSTSD)*, Volume 6 - Issue 2/3/4 – 2009, 127-143. (DOI: 10.1504/WRSTSD.2009.031835) Citation: 01
 241. Ghangrekar M.M. and Shinde V.B. (2008). Simultaneous wastewater treatment and electricity generation in membrane less microbial fuel cell inoculated with preheated septic tank sludge. *Water Science & Technology*, 58(1), 37-43. (doi:10.2166/wst.2008.339), Impact Factor:1.24. Citation: 23.
 242. Puspendu Bhunia and M.M. Ghangrekar (2008). Influence of Biogas Induced Mixing on Granulation in UASB Reactors. *Biochemical Engineering Journal*. 41 (2), 136-141. (doi:10.1016/j.bej.2008.04.016), Impact Factor: 1.872. Citation: 10.
 243. Jadhav G. and Ghangrekar M.M. (2008). Improving Performance of MFC by Design Alteration and Adding Cathodic Electrolytes. *Applied Biochemistry and Biotechnology*. 151(2-3), 319-332. (DOI: 10.1007/s12010-008-8195-2), Impact Factor:1.643. Citation: 25.
 244. Puspendu Bhunia and M.M. Ghangrekar (2008). Statistical Modeling and Optimization of Biomass Granulation and COD Removal in UASB Reactors Treating Low Strength Wastewaters. *Bioresource Technology*, 99(10), 4229-4238. Citation: 32. IF: 7.539
 245. Puspendu Bhunia and M.M. Ghangrekar (2008). Analysis, evaluation and optimization of kinetic parameters for performance appraisal and design of UASB reactor. *Bioresource Technology*. 99 (7), 2132-2140. Citation: 44. IF: 7.539
 246. Puspendu Bhunia and M.M. Ghangrekar. (2008) Effects of cationic polymer on biomass granulation using thick inoculum in UASB reactors treating low strength wastewater. *Bioresource Technology*, 99(2), 350-358. Citation: 21. IF: 7.539.
 247. Ghangrekar M.M., Kishor N. and Mitra A. (2007). Sewage reuse for aquaculture after treatment in oxidation and duckweed pond. *Water Science Technology*, 55(11), 173–181. Citation: 01
 248. Ghangrekar M.M. and V.B. Shinde (2007). Performance of membrane-less microbial fuel cell treating wastewater and effect of electrode distance and area on electricity production. *Bioresource Technology*, 98(15), 2879-2885, Citation: 206. IF: 7.539
 249. Puspendu Bhunia and M.M. Ghangrekar (2007). Required minimum granule size in UASB reactor and characteristics variation with size. *Bioresource Technology*. 98(5), 994-999. Citation: 44. IF: 7.539.
 250. Ghangrekar M.M. (2006). Performance and correlation of sludge age and efficiency of UASB reactor during step increase in loading rates. *Institution of Engineers (India), Environmental Engineering Division*. Vol. 87, 8-15. Citation: 02.
 251. Puspendu Bhunia and M.M. Ghangrekar (2006). Discussion on Enhanced granulation by natural ionic polymer additives in UASB reactor treating low-strength wastewater. *Water Research*. 40(7);1505-1506.Citation: 03. IF: 9.130
 252. Sakle J.J., Shivnikar S.V., Ghangrekar M.M. (2006). Performance of UASB reactor and granular media filter for sewage treatment. *Journal of Aquatic Biology*, Vol. 21, No. 1., 2006:254-256.
 253. Ghangrekar, M.M., Joshi, S.G., and Asolekar, S.R. (2005). Characteristics of sludge developed under different loading conditions during UASB reactor start-up. *Water Research* 39 (6); 1123-1133. Citation: 140. IF: 9.130
 254. Ghangrekar M.M. (2005). Role of biogas production in UASB reactor performance. *Journal of Indian Association for Environmental Management*. June 2005, Volume 32, No. 2, 53-63.
 255. Ghangrekar M.M. (2004). Performance and cost potency of anaerobic sewage treatment. *Water*

- Intelligence Online, August 2004 (ISSN 1476-1777).
256. Ghangrekar M.M. Kahalekar U.J., and Takalkar S.V. (2003) Design of UASB reactor for treatment of organic wastewaters. *Indian Jr. of Environmental Health*, 45(2), 121-132. Citation: 03.
 257. Ghangrekar M.M. and U.J. Kahalekar (2003). Performance and cost efficacy of two stage anaerobic sewage treatment. *J. of Institution of Engineers (India), Env. Engg. Div.*, 84, 16-22. Citation: 12.
 258. Ghangrekar M.M., Kahalekar U.J., and Sakle J.J. (2002). Applicable loading rates for design of Upflow Anaerobic Sludge Blanket (UASB) reactor. *J. of Institution of Engineers (India), Env. Engg. Div*, 82, 48-53. Citation: 07.
 259. Ghangrekar, M.M., Joshi, S.G., and Asolekar, S.R. (1999). Favourable alkalinity and volatile fatty acids for start-up and operation of UASB reactor. *J. of Inst. of Engg. India, Env. Engg., Division*, February, 1999, 79, 37-41. Citation: 02
 260. Ghangrekar, M.M., Asolekar, S.R., and Joshi, S.G. (1998). Issues in design and start-up of UASB reactor for wastewater treatment. *J. of IWWA, India*, Jan-March, 1998, 49-55.
 261. Ghangrekar, M.M., Asolekar, S.R., Ranganathan, K.R., and Joshi, S.G. (1996). Experience with UASB reactor start-up under different operating conditions. *Water Science Technology*, 34(5-6), 421-428, 1996. Citation: 106.
 262. Ghangrekar, M.M., Ranganathan, K.R., and Joshi, S.G. (1993). Design of experiments to determine optimal operating parameters for rapid granulation in UASB reactor. *J. of IPHE, India*, 1993(4), 48-55.

INTERNATIONAL CONFERENCE: 215

1. M.M. Ghangrekar (2023). Biological and Bioelectrochemical wastewater treatment systems. In International Conference on 'Sustainable and Resilient Environment Development -2023 (ICSRED – 23) jointly organized by GH Raison College of Engineering and NEERI Nagpur on 17 and 18 February 2023 at NEERI Nagpur.
2. Swati Das, Sovik Das, M.M. Ghangrekar (2021). Enzymatic cell disruption followed by application of imposed potential for enhanced lipid extraction from wet algal biomass employing photosynthetic microbial fuel cell. International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREECH - 2021). CSIR-Indian Institute of Petroleum, Dehradun, India, December 1-4, 2021.
3. S. M. Sathe, Indrajit Chakraborty, Manikanta M. Doki, B. K. Dubey, M. M. Ghangrekar (2022). Tonner ink derived iron-based bio-electro-Fenton oxidation for the cathodic degradation of sodium dodecyl sulphate. International Conference on Environmental Science and Engineering, (ICESE - 2022). IIT Bombay, January 20-22, 2022.
4. Yasser Bashir, S M Sathe, and M. M. Ghangrekar (2022). Application of copper zirconium (Cu-Zr) bimetallic cathode catalyst for enhancing the performance of microbial fuel cell. International Conference on Biotechnology for Sustainable Bioresources and bioeconomy (BSBB - 2022). IIT Guwahati, December 7-11, 2022.
5. Monali Priyadarshini, Azhan Ahmad, and MM ghangrekar (2022). A pilot scale demonstration of O₃/H₂O₂/UV coupled solar concentrator with membrane bioreactor for treatment of petrochemical wastewater. 59th Annual Convention of Chemists 2022 & International Conference on Recent Trends in Chemical Sciences (RTCS - 2022). IIT(ISM) Dhanbad, December 16-18, 2022.
6. Azhan Ahmad, Monali Priyadarshini, and MM Ghangrekar (2022). Optimization of electrocoagulation process parameters using magnesium electrodes for the remediation of salicylic acid from wastewater. 3rd International Conference on Advanced Technologies for

Industrial Pollution Control (ATIPC - 2022). IEST, Shibpur, Howrah, West Bengal, December 21-23, 2022.

7. Monali Priyadarshini, Azhan Ahmad, and MM ghangrekar (2022). Catalytic ozonation of ethylene glycol using MIL 53(Fe)-metal-organic framework derived Fe₃O₄. Chemical Engineering Congress (CHEMCON - 2022). HBTU East Campus, Nawabganj, Kanpur, December 27-30, 2022.
8. Rishabh Raj, Swati Das, Sovik Das and Makarand Madhao Ghangrekar (2021). "Electrochemical technologies for the abatement of endocrine disrupting compounds. Advances in Chemical and Environmental Engineering" (ACEE-2021), NIT Raipur, Chhattisgarh, India, 16-17 December 2021.
9. Azhan Ahmad, Monali Priyadarshini, Rishabh Raj, Sovik Das and M. M. Ghangrekar (2021). Beta-blocker removal technologies and future trends: A review. International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021). SVNIT Surat, India, August 06-08, 2021.
10. Das, S., Das, I., Ghangrekar, M. M. (2020). Optimization of applied potential for Microbial Electrosynthesis of organic compounds from biogas, American Society of Civil Engineers India Conference 2020 on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020), **Kolkata**, West Bengal, India, March 2-4, 2020.
11. S. M. Sathe, B. K. Dubey, M. M. Ghangrekar (2020). Adsorptive removal of surfactants in batch experiments using laterite as a low cost adsorbent. Oral presentation in Second ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020), **Kolkata**, India, March 2-4, 2020.
12. Harapriya Pradhan, M. M Ghangrekar (2020). Recent advancement in microbial desalination cell towards sustainable wastewater treatment, desalination and its future prospective. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
13. T.K. Sajana, A. Mitra and M.M. Ghangrekar (2020). In situ aquaculture water remediation by using sediment microbial fuel cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
14. Neethu. B. and M. M. Ghangrekar (2020). Development of low cost microbial carbon-capture cell for simultaneous wastewater treatment, electricity generation and algae production. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
15. Jayeeta Saha, Indrasis Das, Makarand M. Ghangrekar (2020). Engineering anodic microbial consortia and anodic chamber for enhancing the performance of microbial fuel cell: A short review. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
16. G. D. Bhowmick, M. M. Ghangrekar, V. Ahilan, M. Wilhelm, R. Banerjee (2020). Electrochemical membrane bioreactor with polymer derived ceramic based bifunctional membrane for energy-efficient wastewater treatment. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
17. Indrasis Das, M. M. Ghangrekar (2020). Comparison of the performance of non-platinum cathode catalysts in scaled-up portable 25 L clayware microbial fuel cell treating real human waste. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for

- wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
18. Sovik Das, M. M Ghangrekar (2020). Application of TiO₂ as cathode catalyst to improve the microbial electrosynthesis of organic compounds from carbon dioxide. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 19. Indrajit Chakraborty, Neel Ghosh, Debanjali Ghosh, B K Dubey, Debabrata Pradhan, M M Ghangrekar (2020). Synthesis of porous graphitic carbon nitride-V₂O₅ nano-rods composite for assessing feasibility of enhanced H₂O₂ production. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 20. Dibyojyoti Nath, M.M. Ghangrekar (2020). Amino acid rich banana peel waste as substrate and electron shuttle mediator for enhancing power production in clayware microbial fuel cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 21. S. M. Sathe, G. D. Bhowmick, M. M. Ghangrekar (2020). Use of household scouring pad as a cost effective electrode material for application in microbial fuel cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 22. C. N. Khuman, I. Chakraborty and M. M. Ghangrekar (2020). Plant microbial fuel cell – a novel one-step biomass to electricity conversion technology. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 23. K. Venkateswara Rao, M. M. Ghangrekar, Subhasish Tripathy (2020). Bioelectrochemical nutrient and heavy metal recovery: progress and perspectives. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 24. Swati Das, M. M. Ghangrekar (2020). Immobilized microalgal-based treatment of wastewater with simultaneous bioenergy and biofuel recovery in the cathodic chamber of photosynthetic microbial fuel cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 25. Azhan Ahmad, M. M. Ghangrekar (2020). Coupled bio-electrochemical system with electrocoagulation for wastewater treatment: A mini review. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 26. Monali Priyadarshini, Sovik Das, M. M Ghangrekar (2020). Application of metal organic frameworks as cathode catalysts to enhance the performance of microbial fuel cell: A Review. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
 27. Santosh Kumar, G. D. Bhowmick, M. M. Ghangrekar (2020). Application of microbial carbon capture cell in wastewater treatment and simultaneous byproduct recovery: A critical review. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.

28. Ashutosh Gupta, Sovik Das, M. M Ghangrekar (2020). Determination of optimal catholyte pH for the production of hydrogen peroxide in microbial electrolysis cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India
29. Rajneesh Verma, Indrajit Chakraborty, Shamik Chowdhury and M. M. Ghangrekar (2020). Application of novel nitrogen, sulphur co-doped graphene oxide aerogel as an excellent cathode catalyst in microbial fuel cell. Indo-Belgium Workshop on Upscaling and field scale application of bio-electrochemical systems for wastewater treatment and bioenergy recovery, 26th and 27th February 2020, IIT **Kharagpur**, India.
30. Ghangrekar M.M. (2019). Bioelectrochemical processes for conversion of waste to wealth. International workshop on Hybrid technologies for conversion of Lignocellulosic Biomass to Biofuels, December 11-13, 2019, Jadavpur University, **Kolkata**
31. G.D. Bhowmick, M.M. Ghangrekar (2019). Fabrication and operation of an electrochemical membrane bioreactor (EMBR) with polymer derived ceramic based bifunctional membrane for energy-efficient wastewater treatment. International Conference on NEW HORIZONS IN BIOTECHNOLOGY 2019, November 20-24, 2019; **Trivandrum**, Kerala, INDIA.
32. Indrajit Chakraborty, M.M. Ghangrekar (2019). Performance monitoring and sludge characterization of a pilot scale up-flow anaerobic sludge blanket reactor treating domestic wastewater under different organic loading rate. Small Water and Wastewater Systems 16th Specialised Conference of IWA, 1-5 December 2019, Murdoch University, **Perth**, Western Australia.
33. Chakraborty, I., Khuman, C. N., Bhowmick, G. D., Ghangrekar, M. M. (2019). Upflow microbial fuel cell for removal of emerging contaminant from greywater with concomitant energy recovery. IWA Water and Development Congress & Exhibition, **Colombo**, Sri Lanka, December 1-5, 2019.
34. Indrasis Das, Sovik Das, Rohan Dixit, M. M. Ghangrekar (2019). Application of novel low-cost goethite based proton exchange membrane in microbial fuel cell. IWA, Water and Development Congress & Exhibition, **Colombo**, Sri Lanka; 1 – 5 December 2019.
35. Bhowmick, G. D., Das, S, Adhikary, K, **Ghangrekar, M. M.**, Mitra, A. (2019, December). Rhodium as Cathode Catalyst to Enhance Wastewater Treatment Efficiency and Bioenergy Recovery from Microbial Fuel Cell. IWA Water and Development Congress & Exhibition, **Colombo**, Sri Lanka, 1 – 5 December 2019.
36. Lade, I., Bhowmick, G. D., Silva, T. C. A., Ghangrekar, M. M., Wilhelm, M. (2019 October). Polymer derived ceramic based Co/Ni-SiOC (N) electrocatalyst to improve the performance of Microbial Fuel Cell. Global Conference of International Society for Microbial Electrochemistry and Technology, ISMET 7, **Okinawa**, Japan. October 7-11, 2019.
37. G. D. Bhowmick, M. M. Ghangrekar, A. Mitra (2019). Pilot scale submerged ultrafiltration membrane bio-fuel cell with transverse vibration technique to mitigate membrane biofouling with enhanced power production. International Society for microbial electrochemistry and Technology conference, ISMET 7, 2019, October 7-11, 2019, **Okinawa**, Japan.
38. Neel Ghosh, Indrajit Chakraborty, M. M. Ghangrekar (2019). Porous graphitic carbon-nitride nanosheet as an excellent cathode catalyst for microbial fuel cell. International Society for microbial electrochemistry and Technology conference, ISMET 7, 2019, October 7-11, 2019, **Okinawa**, Japan.
39. Indrasis Das, Rajiv Satyakam, Piyush Srivastava, Swarup Khan, M.M. Ghangrekar (2019). Operation of field scale 720 L stacked microbial fuel cell treating human excreta with surrounding illumination: A case study. International Society for microbial electrochemistry and Technology conference, ISMET 7, 2019, October 7-11, 2019, **Okinawa**, Japan.

40. Bhowmick, G. D., Ghangrekar M. M., Mitra, A. (2019, July). Microbial fuel cell and membrane bioreactor combination offering an effective treatment to fish processing wastewater for facilitating water reuse. ASABE Annual International Meeting, July 6-9, 2019, Boston, **Massachusetts**, USA.
41. Indrasis Das, Sovik Das, Aakarsh Agrawal, M. M. Ghangrekar (2019). Synthesis and application of novel low cost $\text{Cu}_{0.5}\text{Mn}_{0.5}\text{Fe}_2\text{O}_4$ spinel as cathode catalyst in microbial fuel cell. ACS Fall 2019 National Meeting & Expo. August 25 - 29, 2019 | **San Diego**, CA, USA.
42. Indrasis Das, M.M. Ghangrekar (2019). Synthesis and application of Zr-metal organic framework as cathode catalyst in the microbial fuel cell. ACS Fall 2019 National Meeting & Expo. August 25 - 29, 2019 | **San Diego**, CA, USA.
43. Indrajit Chakraborty, Neel Ghosh, Debanjali Ghosh, B K Dubey, Debabrata Pradhan, M M Ghangrekar (2019). Porous graphitic carbon nitride- V_2O_5 nanorod composite for application in microbial fuel cell. Advanced Materials Congress, **Singapore**, 31st October – 4th November, 2019.
44. Thamires Canuto de Almeida e Silva, Gourav Dhar Bhowmick, Makarand Madhao Ghangrekar and Michaela Wilhelm1, Kurosch Rezwani (2019). Macroporous SiOC-carbon-based Composite as Anodes for Microbial Fuel Cell Technology. 5th International Conference on Chemical Materials and Process (ICCMP 2019), Chulalongkorn University, **Bangkok**, Thailand. May 1-3, 2019.
45. Ghangrekar M.M. (2019). Smart Microbial Fuel Cell based Bioelectric Toilet Technology for onsite human waste treatment and electricity recovery. SFD Week, CSE Knowledge Conclave, 2-5 April, 2019, **Alwar**, Rajasthan, India
46. V. Tholia, Neethu B, G. D. Bhowmick and M. M. Ghangrekar (2019). Enhancing the performance of microbial fuel cell by using sludge pretreated with chloroform as inoculum. 8th International Conference on Clean and Green Energy-ICCGE 2019, February 13-15, 2019, **Milan**, Italy.
47. Aswani K Viswanath, G. D. Bhowmick, M. M. Ghangrekar, A. Mitra (2019). Green synthesis of silver nanoparticles from Carica papaya leaves as cathode catalyst to enhance the performance of microbial fuel cell. 8th International Conference on Clean and Green Energy-ICCGE 2019, February 13-15, 2019, **Milan**, Italy.
48. Indrasis Das, M. M. Ghangrekar (2019). Seasonal performance variation of field scale 1500 L microbial fuel cell based bioelectric toilet: a case study. National environmental conference: IIT BOMBAY Diamond Jubilee Year Conference (NEC- 2019), CESE, IIT-**Bombay**, January 31- February 2 2019.
49. Sovik Das, M. M. Ghangrekar (2019). Effect of impose potential on microbial electrosynthesis of organic compounds from biogas. National environmental conference: IIT **BOMBAY** Diamond Jubilee Year Conference (NEC- 2019), CESE, IIT-Bombay, January 31- February 2 2019.
50. G. D. Bhowmick, K. Adhikary, M. M. Ghangrekar, A. Mitra (2019). Introducing novel hybrid ion exchange membrane and ANAMMOX bacteria to improve nitrogen removal efficacy of microbial fuel cell. National environmental conference: IIT BOMBAY Diamond Jubilee Year Conference (NEC- 2019), CESE, IIT-**Bombay**, January 31- February 2 2019.
51. Indrasis Das, Sovik Das, Indrajit Chakraborty, M. M. Ghangrekar (2018). Bio-Refractory Pollutant Removal Using Microbial Electrochemical Technologies: A Short Review. International Conference on Advanced Technologies for Industrial Pollution Control (ATIPC-2018), Shibpur, **Howrah**, December 17-19, 2018, ISBN No: 978-93-5346-452-3.
52. Zekker, I., Bhowmick, G. D., Rikmann, E., Mandel, A., Tenno, T., Priks, H., Ghangrekar, M. M., Mitra, A. (2018, November). Deammonification nitrogen removal, ORP aided operation benefits on MFC technology. Linnaeus ECO-TECH, Kalmar, Sweden.
53. Aswani K Viswanath, G. D. Bhowmick, Neethu B., M. M. Ghangrekar, A. Mitra (2018). Application of Selenium/Activated carbon as novel cathode catalyst to enhance the performance of microbial fuel cell, 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) Meeting with special focus on Bioelectrochemical and electrochemical approaches

- for decentralized sanitation, Birla Institute of Technology & Science - Pilani, K K Birla Goa campus, **Goa**, India, 13 -16 November 2018.
54. Indrasis Das, Md. T. Noori, M. M. Ghangrekar (2018). Application of extremely low-cost Copper Zinc (CuZn) nanoparticles as cathode catalyst in microbial fuel cell for treatment of sanitary wastewater, 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) Meeting with special focus on Bioelectrochemical and electrochemical approaches for decentralized sanitation, Birla Institute of Technology & Science - Pilani, K K Birla Goa campus, **Goa**, India, 13 -16 November 2018.
 55. Indrajit Chakraborty, Sovik Das, M. M. Ghangrekar (2018). Enhanced power production of microbial fuel cell by suppressing methanogens in anodic inoculum by *Chaetoceros* pre-treatment and using palladium as cathode catalyst, 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) Meeting with special focus on Bioelectrochemical and electrochemical approaches for decentralized sanitation, Birla Institute of Technology & Science - Pilani, K K Birla Goa campus, **Goa**, India, 13 -16 November 2018.
 56. G. D. Bhowmick, M. M. Ghangrekar, A. Mitra (2018). Pilot scale submerged ultrafiltration membrane bio-fuel cell with transverse and magnetically induced vibration techniques to mitigate biofouling with enhanced power production, 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) Meeting with special focus on Bioelectrochemical and electrochemical approaches for decentralized sanitation, Birla Institute of Technology & Science - Pilani, K K Birla Goa campus, **Goa**, India, 13 -16 November 2018.
 57. Dipak A. Jadhav, Indrasis Das, Makarand M. Ghangrekar (2018). 100 L and 1.5 m³ capacity advanced bioelectric toilet: Performance evaluation of field scale microbial fuel cell, 4th Asia Pacific – International Society of Microbial Electrochemistry and Technology (AP-ISMET) Meeting with special focus on Bioelectrochemical and electrochemical approaches for decentralized sanitation, Birla Institute of Technology & Science - Pilani, K K Birla Goa campus, **Goa**, India, 13 -16 November 2018.
 58. Neethu B., Pankaj Sarkar, M. M. Ghangrekar (2018), Application of ion exchange membranes in enhancing algal production alongside desalination of saline water in microbial fuel cell, 2018 MRS Fall meeting and Exhibit, 25-30 November, **Boston**, USA.
 59. Bhowmick, G. D., Neethu, B., Khuman, C. N., Ghangrekar M. M., Mitra, A. (2018, 12-14 September) Enhanced power production from ceramic microbial fuel cell using graphitized coconut coir based anode. 4th Regional Meeting of the International Society for Microbial Electrochemistry and Technology-EU, New-castle University upon Tyne, **Newcastle**, UK.
 60. Das, I., Das, S., Chakraborty, I., Bhowmick, G. D., Ghangrekar, M. M. (2018, 12-14 September). Lab scale to field scale application of bioelectrochemical systems: a short review on current status and problems faced. 4th Regional Meeting of the International Society for Microbial Electrochemistry and Technology-EU, New-castle University upon Tyne, **Newcastle**, UK.
 61. Nath, D., Tiwari, B.R., Ghangrekar, M.M. (2018, 12-14 September) *Eucalyptus globulus* leaf derived secondary metabolites based transkingdom control for enhancing power production of pilot scale microbial fuel cell. 4th Regional Meeting of the International Society for Microbial Electrochemistry and Technology-EU, New-castle University upon Tyne, **Newcastle**, UK.
 62. Pritha Chatterjee, Pratik Kumar, M.M. Ghangrekar. (2018, 12-14 September). EIS as tool to analyze fouling inhibition using polyacrylic co-maleic acid (PCMA) as an anti-scaling agent in single chamber microbial fuel cell. 4th Regional Meeting of the International Society for Microbial Electrochemistry and Technology-EU, New-castle University upon Tyne, **Newcastle**, UK.
 63. Ahilan, V., Cabral, C., Bhowmick, G. D., Ghangrekar, M. M., Wilhelm, M., Rezwan, K. (2018, September). A novel polymer derived ceramic composite membrane for high performance Microbial Fuel Cell. 4th Regional Meeting of the International Society for Microbial Electrochemistry and Technology-EU, New-castle University upon Tyne, New-castle, UK.
 64. Md. T. Noori, G. D. Bhowmick, O.M. Ghangrekar, P. Dhamu, S. Fadanavis, M. M. Ghangrekar and C.K. Mukherjee (2018). Phenol-activated persulphate (s₂o₈²⁻) as efficient terminal electron

- acceptor to improve bioenergy recovery from microbial fuel cell. ADTech-SAB2018: the 2nd international conference on anaerobic digestion technology: sustainable alternative bioenergy for a stable life. 4-7 June 2018, **Chaing Mai**, Thailand.
65. Indrasis Das, Dipak A. Jadhav, Md. T. Noori, Makarand M. Ghangrekar, A. Rajakumar (2018). Different catalyst combinations investigation for field scale applicability in bioelectric toilet microbial fuel cell. ADTech-SAB2018: the 2nd international conference on anaerobic digestion technology: sustainable alternative bioenergy for a stable life. 4-7 June 2018, **Chaing Mai**, Thailand.
 66. Neethu B. and M. M. Ghangrekar (2018). Utilization of nutrients in wastewater for algae production with simultaneous energy recovery by a novel stacked microbial desalination cell and microbial carbon capture cell system. ADTech-SAB2018: the 2nd international conference on anaerobic digestion technology: sustainable alternative bioenergy for a stable life. 4-7 June 2018, **Chaing Mai**, Thailand.
 67. Anusha Ganta, Md. T. Noori, M.M. Ghangrekar (2018). Green synthesis of reduced graphene oxide supported aluminium doped zinc oxide to be used as cathode catalyst for enhancing the performance of microbial desalination cell. International Conference on Desalination (InDA-2018). 20th and 21st April 2018, Department of Chemical Engineering, National Institute of Technology, **Tiruchirappalli** - 620 015, India.
 68. Bhowmick, G. D., Ghosh Ray, S., Ghangrekar M. M., Mitra, A. (2018, 16-19 February). Improved wastewater treatment by using integrated microbial fuel cell-membrane bioreactor system along with ruthenium/activated carbon cathode composite to enhance bio-energy recovery. International Conference on Sustainable Technologies for Intelligent Water Management, IIT **Roorkee**, India.
 69. Khuman, C. N., Bhowmick, G. D., Tiwari, B. R., Nath, D., Ghangrekar, M. M. and Mitra, A. (2018, 16-19 February). Upflow hydroponic constructed wetland microbial fuel cell (UHCW-MFC) for wastewater treatment and recovery of bioelectricity. International Conference on Sustainable Technologies for Intelligent Water Management, IIT **Roorkee**, India.
 70. G. Anusha, Md.T. Noori, Pritha Chatterjee, M.M.Ghangrekar (2018). Application of Carbon supported Silver-Tin oxide composite (Ag-SnO₂) cathode for enhancing desalination performance in microbial desalination cell. International Conference on Sustainable Technologies for Intelligent Water Management, IWRS, 16-19 February, IIT **Roorkee**, India (Oral).
 71. Neethu.B, Pankaj K. Gautam, Dipak A. Jadhav, M.M. Ghangrekar (2018) , Simultaneous Nutrient Removal, Algal Biomass Production, and Electricity Generation in Microbial Carbon Capture Cell. International Conference on "sustainable technologies for intelligent water management, IWRS, 16-19 February 2018, IIT **Roorkee**, India.
 72. Neethu.B and M.M. Ghangrekar (2018), Development of low-cost microbial carbon capture cell for simultaneous electricity generation and algal production, DBT National Workshop On Bioenergy 2018, 6-7 July, IIT **Roorkee**, India.
 73. Das, I., Jadhav, D. A., Ghangrekar M. M. (2018, February). Scaling up of microbial fuel cell for treatment of human waste to develop bioelectric toilet. International Conference on Sustainable Technologies for Intelligent Water Management (STIWM), IIT **Roorkee**, India.
 74. G. Anusha, Md. T. Noori, M.M. Ghangrekar (2018). Enhanced performance of microbial desalination cell with green synthesized Aluminium doped zinc oxide supported on reduced graphene oxide as cathode catalyst. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 75. B.R. Tiwari, Md.T. Noori, M.M. Ghangrekar (2018). Development of low cost membrane and cathode catalyst for application in microbial fuel cell treating distillery wastewater. Indo-EU

- workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
76. Dibyoyoty Nath, M.M. Ghangrekar (2018). Plant secondary metabolites based microbial control for MFC-MBR application. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 77. Dipak A. Jadhav, Indrasis Das, M.M. Ghangrekar (2018). Moving from lab scale towards field scale application of microbial fuel cells. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 78. Anil N. Ghadge, Dipak A. Jadhav, Indrasis Das, M.M. Ghangrekar (2018). Development of ceramic separator blended with exchangeable cations to enhance the performance single chambered microbial fuel cells. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 79. G. D. Bhowmick, D. Nath, V. Ahilan, T. C. A. Silva, I. Kruusenberg, M. M. Ghangrekar, M. Wilhelm, K. Tammeveski (2018). Integrated MFC-MBR system using low-cost, multifunctional ceramic membrane for efficient wastewater treatment and electricity recovery. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 80. Indrasis Das, Dipak A. Jadhav, M.M. Ghangrekar (2018). Bioelectric Toilet: Novel sustainable bioelectrochemical technology for generating electricity during treatment of human waste. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 81. I. Sharma, Neethu Bhaskar, M.M. Ghangrekar (2018). Anodic inoculums screening for microbial fuel cells by quantifying bioelectrogenic activity using tungsten trioxide quantum rods. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 82. Neethu.B, M.M. Ghangrekar (2018). Development of low cost Microbial carbon Capture (MCC) Cells for continuous algae cultivation and power generation. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 83. Md. T. Noori; B.R. Tiwari; Kailash Patel; C.K. Mukherjee and M. M. Ghangrekar (2018). Eco-friendly synthesis of Nitrogen-co-doped Co₃O₄ to be used as oxygen reduction reaction catalyst in microbial fuel cell. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 84. Onkar Ghangrekar, Paras Dhamu, Shreya Fadnavis, Pritha Chatterjee, M. M. Ghangrekar (2018). In-situ disinfection of secondary sewage by electro-synthesis of hydrogen peroxide in a cathodic half-cell. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 85. Pankaj K. Gautam, Dipak A. Jadhav, Neethu B., M.M. Ghangrekar (2018). Effect of different algal biomass concentrations on performance of low-cost clayware microbial carbon-capture cell. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 86. P. P. Rajesh; Md.T. Noori; M. M. Ghangrekar (2018). Improving performance of microbial fuel cell by using polyaniline coated carbon felt anode and anodic inoculum pre-treatment by *Chaetoceros*. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and

- Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
87. Sovik Das, Indrajit Chakraborty, Subhrajit Mukherjee, M. M. Ghangrekar (2018). Improved power generation by Chaetoceros pretreatment of anodic inoculum and MnO₂ as cathode catalyst in microbial fuel cell. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 88. Subhrajit Mukherjee, Indrasis Das, Sovik Das, M.M. Ghangrekar (2018). Removal of sodium lauryl sulphate from washwater using microbial fuel cell and simultaneous power generation. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 89. Thamires Canuto de Almeida e Silva, Gourav Dhar, M.M. Ghangrekar, Michaela Wilhelm, Kurosch Rezwan (2018). Novel polysiloxanes-based anode materials for Microbial Fuel Cells (MFCs). Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 90. Vignesh Ahilan, Gourav Dhar, M.M. Ghangrekar, Michaela Wilhelm, Kurosch Rezwan (2018). Porous polymer derived ceramic composite membranes for Microbial Fuel Cell (MFC). Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 91. K. Adhikary, G. D. Bhowmick, M. M. Ghangrekar and A. Mitra (2018). Introducing novel hybrid ion exchange membrane and ANAMMOX to improve the efficiency of nitrogen removal from microbial fuel cell. Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 92. Kailash Patel, B. R.Tiwari, M. M. Ghangrekar (2018). Effect of applied voltage on wastewater treatment and methane production in Up-flow Anaerobic Sludge Blanket (UASB). Indo-EU workshop on The Recent Development in Microbial Fuel Cell and Membrane Bioreactor Technology, Indian Institute of Technology **Kharagpur**, India; 2-3 February 2018.
 93. Harpriya Pradha and M.M. Ghangrekar (2017). Effect of Cathodic Electron Acceptors on the Performance of Microbial Desalination Cell. 7th International Conference on Solid Waste Management, December 15 - 17, 2017 at Professor Jayashankar Telangana State Agricultural University, Rajendranagar, **Hyderabad**, Telengana, India.
 94. Bhowmick, G. D., Ghangrekar M. M., Mitra, A. (2017, October). Bismuth doped TiO₂ (Bi-TiO₂) as an excellent photocathode catalyst to enhance the performance of microbial fuel cell. General Meeting of the International Society for Microbial Electrochemistry and Technology, **Lisbon**, Portugal; 2-6 October 2017.
 95. Sovik Das, Pritha Chatterjee, G. D. Bhowmick, M.M. Ghangrekar (2017). Tungsten oxide as anode and cathode catalyst for improved power generation and wastewater treatment in a microbial fuel cell. General Meeting of the International Society for Microbial Electrochemistry and Technology, **Lisbon**, Portugal; 2-6 October 2017.
 96. Thamires Canuto de Almeida e Silva, Gourav Dhar, Makarand Madhao Ghangrekar, Michaela Wilhelm, Kurosch Rezwan (2017). New polysiloxanes-based ceramic anode materials for Microbial Fuel Cells (MFCs). General Meeting of the International Society for Microbial Electrochemistry and Technology, **Lisbon**, Portugal; 2-6 October 2017.
 97. Vignesh Ahilan, gourav dhar, makarand madhao ghangrekar, Michaela Wilhelm, kurosch rezwan (2017). Functionalized polysiloxane derived ceramic membranes for microbial fuel cells (MFCs). General Meeting of the International Society for Microbial Electrochemistry and Technology, **Lisbon**, Portugal; 2-6 October 2017.

98. Md. T. Noori, B.R. Tiwari, M.M. Ghangrekar, C.K. Mukherjee (2017). Application low-cost Cu₃Sn cathode catalyst for improving the performance of microbial fuel cell, MRS Fall Meeting & Exhibition 2017, November 26 to December 1, 2017, **Boston**, USA.
99. B.R. Tiwari, Md. T. Noori, M.M. Ghangrekar (2017). Enhancing performance of microbial fuel cell treating distillery wastewater using carbon supported Nickel-Phthalocyanine/MnO_x as novel cathode catalyst, MRS Fall Meeting & Exhibition 2017, November 26 to December 1, 2017, **Boston**, USA.
100. Adhikary, K., Bhowmick, G. D., Das, I., Ghangrekar, M. M., Mitra, A. (2017, October). Bismuth doped Ruthenium/Activated carbon (Bi-Ru/AC) photocathode catalyst with polyvinyl alcohol binder to improve the efficacy of microbial fuel cell. International Conference on Emerging Trends in Biotechnology for Waste Conversion, CSIR-NEERI, **Nagpur**, India, 8-10 October 2017.
101. Das, Sovik., Ghangrekar M. M., (2017, October). Value-added product recovery and carbon dioxide sequestration from biogas using microbial electrosynthesis. International Conference on Emerging Trends in Biotechnology for Waste Conversion, **Nagpur**, India; 8 - 10 October 2017.
102. Adhikary, K., Bhowmick, G. D., Das, I., Ghangrekar, M. M., Mitra, A. (2017, October). Bismuth doped Ruthenium/Activated carbon (Bi-Ru/AC) photocathode catalyst with polyvinyl alcohol binder to improve the efficacy of microbial fuel cell. International Conference on Emerging Trends in Biotechnology for Waste Conversion, CSIR-NEERI, **Nagpur**, India, 8-10 October 2017.
103. Tiwari, B.R., Ghangrekar, M.M. Influence of organic loading rate on anode kinetics of a microbial fuel cell treating distillery wastewater. International Conference on Environment Science and Technology. 12-14 June 2017, **Madrid**, Spain.
104. Ghangrekar M.M., Chatterjee Pritha (2017). awa. International Recycling Summit 2017 on Recycling and Environmental Management, 22-23 May 2017, **Kuala Lumpur**, Malaysia.
105. Chatterjee Pritha, Ghangrekar M.M. (2017). Biomass granulation in an upflow anaerobic sludge blanket reactor treating sewage followed by treatment in a high rate algal pond facilitating reuse of treated water. International Recycling Summit 2017 on Recycling and Environmental Management, 22-23 May 2017, **Kuala Lumpur**, Malaysia.
106. Jadhav D.A., Ghadge A. N., Ghangrekar M. M. (2017). Assessment of ceramic separator blended with exchangeable cations for air cathode microbial fuel cells, International Conference on Functional Electroceramics and Polymers (ICEP-2017), **IIT Kharagpur**, February, 2017.
107. Sharma I., Ghangrekar M. M. (2017). Activated carbon as anode catalyst synthesized from post brewing tea waste to enhance power production of microbial fuel cell. 6th International Conference on Functional Electroceramics and Polymers (ICEP-2017), 20th to 22nd February 2017, **IIT Kharagpur**, India.
108. Noori MD. T., Ghangrekar M.M, Mukherjee C.K. (2017). Enhancing the performance of sediment microbial fuel cell using graphene oxide – zeolite modified anode and V₂O₅ catalyzed cathode, 6th International Conference on Clean and Green Energy, February 8 – 10, 2017, **Frankfurt**, Germany.
109. Rajesh P.P., Noori MD. T., Ghangrekar M.M. (2017). Graphene Oxide/Polytetrafluoroethylene composite anode and Chaetoceros pre-treated anodic inoculum enhancing performance of microbial fuel cell, 6th International Conference on Clean and Green Energy, February 8 – 10, 2017, **Frankfurt**, Germany.
110. Tiwari B.R., Ghangrekar M.M. (2017). Electricity production during distillery wastewater treatment in a microbial fuel cell equipped with low cost PVA-Nafion-borosilicate membrane, 6th International Conference on Clean and Green Energy, February 8 – 10, 2017, **Frankfurt**, Germany.
111. Verma, N., Noori, M. T. and Ghangrekar, M. M. Performance of Microbial Fuel Cell using different loadings of Polydimethylsiloxane (PDMS) as Catalyst Binder in Cathode. Proceedings of

- International conference on innovative trends and technologies in engineering science and education (ICITTESE 2017), 1, 66-74.
112. Noori, MD. T., Ghangrekar, M.M., Mitra, A., Mukherjee, C.K. (2016) Treatment of fish market wastewater using single and dual chamber microbial fuel cell along with electricity generation. Asia-Pacific Conference on Biotechnology for Waste Conversion 2016, December, 6 – 8, 2016, Hong Kong Baptist University, **Hong Kong**.
 113. B.R. Tiwary, Noori, MD. T., Ghangrekar, M.M. (2016). Carbon supported Ni- phthalocyanine / MnOx as novel cathode catalyst for microbial fuel cell application. Asia-Pacific Conference on Biotechnology for Waste Conversion 2016, December, 6 – 8, 2016, Hong Kong Baptist University, **Hong Kong**.
 114. Rajesh P. P., Ghangrekar, M.M. (2016) Optimum dose of Chaetoceros for controlling methanogenesis to improve power production of microbial fuel cell. Asia-Pacific Conference on Biotechnology for Waste Conversion 2016 (BioWC 2016), December, 6 – 8, 2016, Hong Kong Baptist University, **Hong Kong**.
 115. Bhowmick G. D., Ghosh Ray S, Ghangrekar M.M, Mitra A. (2016). Advance process of combined microbial fuel cell – Membrane Bioreactor for effective treatment of fish processing wastewater. International conference on emerging technologies in agricultural engineering, December 27 – 30, 2016, **IIT Kharagpur**.
 116. Paul D., Ghangrekar M.M., Mitra A. (2016). Sediment Microbial Fuel Cell as an Avenue for In Situ Bioremediation of Aquatic Sediment: A Review. International conference on emerging technologies in agricultural engineering, December 27 – 30, 2016, **IIT Kharagpur**.
 117. I. Sharma and M. M. Ghangrekar (2016). Domiciliary management of mango waste for power production using biological fuel cell-a green technology. The 23rd World Energy Congress, 9th to 13th October 2016, **Istanbul**, Turkey.
 118. I. Sharma and M. M. Ghangrekar (2016). The use of tungsten wire as current collector in microbial fuel cell with comparison of titanium and stainless steel. 1st International Conference on Bioresource Technology for Bioenergy, Bioproducts& Environmental Sustainability, 23rd to 26th October 2016, **Sitges-Spain**.
 119. G. Yadav, I. Sharma, M.M. Ghangrekar, R. Sen (2016). A green biocathode to enhance power output steered by bacteria-microalgae synergistic metabolism in microbial fuel cell. 6th International Symposium on Energy from Biomass and Waste, 14th -17th November 2016, Venice, Italy.
 120. Jadhav D.A., Ghangrekar M.M. 2016. Bioelectric toilet microbial fuel cell capable to generate bioelectricity during treatment of human waste, International Conference on “21st Century Energy Needs – Materials, Systems and Applications 2016, **IIT Kharagpur**, November, 2016.
 121. P. Chatterjee, S.C. Jain, C. Maity, M. M. Ghangrekar, A. Real, C. A. Aragon, I. Martin, J.J. Salas (2016). Performance assessment of combination of an upflow anaerobic sludge blanket reactor and high rate algal pond for complete sewage treatment, 13th IWA Specialized Conference on Small Water and Wastewater Systems & 5th IWA Specialized Conference on Resources Oriented Sanitation from 14-16 September, 2016 in **Athens**, Greece.
 122. Ghosh Ray S., Ghangrekar M.M. (2016). Advances in wastewater treatment by combined microbial fuel cell-membrane bioreactor. 13th IWA Specialized Conference on Small Water and Wastewater Systems & 5th IWA Specialized Conference on Resources Oriented Sanitation from 14-16 September, 2016 in **Athens**, Greece.
 123. Kumar, P., Chatterjee, P., Ghangrekar, M.M. (2016). Fouling Resistant Novel Cathode for Microbial Fuel Cell using Amino-Tri- Methylene-Phosphate as Anti Scaling agent, 13th IWA Leading Edge Conference on Water and Wastewater Technologies, **Spain**, June 13 –16, 2016.
 124. Fayyaz A. Memon, Seyed MK Sadr, Andrew P. Duncan, Rob Gibson, Pritha Chatterjee, Markus Starkl, Ram Prasad, Dragan Savic, Ligy Philip, Absar A Kazmi, Makarand M. Ghangrekar and Anju Singh (2016). Development of a stakeholders informed decision support system for optioneering the treatment and reuse of wastewater. ISWATS Conference, April 21-23, 2016, **Pune**, India.

125. Bhowmick, G. D., Ghosh Ray, S., Mitra, A., Ghangrekar M. M. (2016, April). Performance evaluation of low-cost air-cathode microbial fuel cell modified with ceramic cathode assembly by titanium di-oxide nanoparticles. International Conference On Innovations in Sustainable Water and Wastewater Treatment Systems (ISWATS), Jointly Organized By India - EU Science & Technology Research Collaboration Projects , **Pune**, India.
126. M.M. Ghangrekar and Pritha Chatterjee (April, 2016). Application of Bio-electrochemical Processes for Converting Waste to Energy and Value Added Products. EMN meeting on Bioenergy 2016, April 4 to April 7, 2016, **Phuket**, Thailand.
127. Bhowmick, G. D., Ghosh Ray, S., Mitra, A., Ghangrekar M. M. (2016, September). Energy efficient combined process of microbial fuel cell (MFC) and membrane bioreactor (MBR) for high efficiency treatment of organic wastewater. 13 th IWA Specialized Conference on Small Water and Wastewater Systems & 5th IWA Specialized Conference on Resources-Oriented Sanitation, **Athens**, Greece.
128. Bhowmick, G. D., Ghosh Ray, S., Mitra, A., Ghangrekar M. M. (2016, December). Energy efficient combined process of microbial fuel cell (MFC) and membrane bioreactor (MBR) for effective treatment of fish processing wastewater. International Conference on Emerging Technologies in Agricultural & Food Engineering (ETAE), Agricultural & Food Engineering Department, Indian Institute of Technology **Kharagpur**, West Bengal, India.
129. I. Sharma and M.M Ghangrekar (2016). Power production from *Saccharomyces cerevisiae* pre-treated mango waste using microbial fuel cell. 7 th World Renewable Energy Technology ongress & Expo-2016, 21 st to 23 rd August 2016, **New Delhi**.
130. I. Sharma and M.M Ghangrekar (2015). Challenges for bacterial population in Microbial Fuel Cells surrounded by unwittingly co-inoculated inhibitors. 6 th world congress on biotechnology, OMICS International Conference, 05-07 October 2015, **New Delhi**, p.238.
131. Jadhav D.A., Ghangrekar M.M. (2016). Bio-electrochemical septic tank MFC with super-capacitive power management system, International workshop on electrochemical storage system (IWEES-2016), **IIT Kharagpur**, February, 17-20, 2016.
132. Jadhav D.A., Ghangrekar M.M. (2016). Scalable stacked bioelectric toilet microbial fuel cell for treatment of human waste and charging the mobile phone battery, International Conference on Emerging Technologies in Agricultural and Food Engineering: ETAE 2016, **IIT Kharagpur**, December 2016
133. Rajesh, P. P., Ghangrekar, M. M. 2016. Bioelectricity generation from marine algae *Chaetoceros* using microbial fuel cell. 2nd International Conference on Recent Advances in Bio-Energy Research (ICRABR-2016), Sardar Swaran Singh National Institute of Bio-Energy, **Kapurthala**, India (February 25-27, 2016). P. 295-303.
134. Pradhan, H., Ghangrekar, M.M. (2016). Microbial desalination cell: an emerging technology towards wastewater treatment and desalination. 2nd International Conference on Recent Advances in Bio-Energy Research (ICRABR-2016), Sardar Swaran Singh National Institute of Bio-Energy, **Kapurthala**, India (February 25-27, 2016)
135. Pradhan, H., Shinde, Omkar A., Ghangrekar, M.M., Sarkar, S.(2015). Bioremediation of steel plant wastewater and improved electricity generation in bio-electrochemical desalination cell. 21st International Biohydrometallurgy Symposium, **Bali**, Indonesia, October 5-9, 2015.
136. Ghadge, A. N., Jadhav, D. A. & Ghangrekar, M. M. (2015). Application of ceramic separator enriched with exchangeable cations for single chamber microbial fuel cells International conference on Ceramic and Advanced materials for Energy and Environment (CAMEE2015) held at **Bengaluru**, India between 15th -17th December, 2015.
137. Jadhav D.A., Ghadge A.N., Ghangrekar M.M. 2015. Effective utilization of recovered goethite from mining effluent to enhance performance of low cost earthenware microbial fuel cells, 3rd Water Research Conference, **China**, Jan. 11-14.

138. Jadhav D.A., Jain, S.C., Ghangrekar M.M. (2015). Bioelectricity generation with simultaneous sulfate and organic matter removal in low cost clayware microbial fuel cell, International Conference on New Horizons in Biotechnology, **Trivandrum**, November 22-25. 2015.
139. Jadhav D.A., Ghangrekar M.M. (2015). Bioelectric toilet (Bio-electrochemical septic tank system): A novel approach for treatment of human waste and generating onsite electricity, Second International conference on Terra Preta Sanitation, BITS Pilani, **Goa**, November, 18-19.
140. Anamika, N. Yadav, Chatterjee, P., Ghangrekar, M.M. Constructed Wetland Microbial Fuel Cell for Electricity Production and Wastewater Treatment, Terra preta sanitation and Decentralized wastewater systems, November 19 – 20, 2015, BITS, Goa.
141. Jadhav D.A., Pandit S., Ghangrekar M. M. (2015). Synergistic association of the microbial inoculums for treatment of lactate based wastewater using earthen pot microbial fuel cells, Second international conference on environment technology & energy, **Sri Lanka**, November, 22-23.
142. Rajesh P.P, M.M. Ghangrekar (2015). Bioelectricity generation from marine algae *chaetoceros* using microbial fuel cell. International Conference on Recent Advances in Bio-energy Research' (ICRABR-2015), Mar 14-17, 2015, SSS-NIRE, **Kapurthala**, India.
143. B.R. Tiwari, M.M. Ghangrekar (2015). Selective enrichment of electrochemically active bacteria in microbial fuel cell by pre-treatment of mixed anaerobic sludge to be used as inoculum. International Conference on Recent Advances in Bio-energy Research' (ICRABR-2015), Mar 14-17, 2015, SSS-NIRE, **Kapurthala**, India.
144. Md. T. Noori, M.M. Ghangrekar, A. Mitra, C.K. Mukherjee (2015). Enhanced power generation in microbial fuel cell using MnO₂ catalyzed cathode treating fish market wastewater. International Conference on Recent Advances in Bio-energy Research' (ICRABR-2015), Mar 14-17, 2015, SSS-NIRE, **Kapurthala**, India.
145. M.M. Ghangrekar (2015). Exploiting bioelectrochemical systems for waste reclamation and bioresource recovery. International Conference on Anaerobic Digestion: AD Technology and Microbial Ecology for Sustainable Development (ADTech-2015); 3 – 6 February 2015, The Empress Hotel and Convention Centre, **Chiang Mai**, Thailand.
146. S. Ghosh Ray, S. Kumari, M. M. Ghangrekar, A. Mitra (2015). Effect of chemical hydrolysis of sugarcane bagasse on performance of microbial fuel cell under different substrate loadings. International Conference on Anaerobic Digestion: AD Technology and Microbial Ecology for Sustainable Development (ADTech-2015); 3 – 6 February 2015, The Empress Hotel and Convention Centre, **Chiang Mai**, Thailand.
147. Ritu Prem, M.M. Ghangrekar, A. Mitra (2015). Application of Electro-Coagulation for in-situ Remediation of Aquaculture Water. ICW 2015. International conference on Water: From pollution to purification, January 23-26, 2015. Mahatma Gandhi University **Kottayam**, Kerala.
148. Jadhav, D.A., Ghadge, A.N., Ghangrekar, M.M. (2015). Effective utilization of recovered goethite from mining effluent to enhance performance of low cost earthenware microbial fuel cells, 3rd Water Research Conference, Shenzhen, Guangdong Province, China, Jan. 11-14. 2015.
149. Ghadge, A.N., Jadhav, D.A., Pradhan, H., Ghangrekar, M.M. (2014). Waste Activated Sludge Digestion and Electricity Generation in Clayware Microbial Fuel Cell. International conference on Environment and Energy, 15-17 December 2014, **Hyderabad**, India.
150. Sharma I. and M.M. Ghangrekar (2014). Application of electro-chromic tungsten oxide nano wires to determine bioelectrogenesis in microbial fuel cells. In Conference Proceeding of 3rd International Conference on “Innovative Approach in Applied Physical, Mathematical/ Statistical, Chemical Sciences and Emerging Energy Technology for Sustainable Development” (APMSCSET-2014), 27-28 September 2014, JNU-**New Delhi**, p. 132.
151. D.A. Jadhav, A.N. Ghadge, M.M. Ghangrekar (2014). Effective utilization of recovered goethite from mining effluent to enhance performance of low cost earthenware microbial fuel cells. 3rd Water Research Conference, 11-14 January 2015, **Shenzhen**, China.
152. Pritha Chatterjee and M.M. Ghangrekar (2014). Performance assessment of decentralized wastewater treatment systems. IWA 12th specialized conference on Small waste water system and resource oriented sanitation, 2-4 November, **Muscat**.
153. S. Ghosh Ray, M. M. Ghangrekar (2014). Anaerobic Secondary Treatment of Biologically Pretreated Grain-based Distillery Wastewater And Chitosan Recovery. IWA Specialist

- Conference on Sustainable Wastewater Treatment and Resource Recovery, 26-30 October, 2014, **Kathmandu**, Nepal.
154. Harapriya Pradhan, M. M. Ghangrekar (2014). Effect of applied potential on the system performance of a microbial desalination cell. IWA Specialist Conference on Sustainable Wastewater Treatment and Resource Recovery, 26-30 October, 2014, **Kathmandu**, Nepal.
 155. M.M. Ghangrekar, Ghadge A.N., Harapriya Pradhan (2014). Prospects of Bioelectrochemical Systems in Wastewater Treatment. 2nd International Conference on Materials and Renewable Energy, MRE 2014, **Hong Kong**, 8-10 August 2014.
 156. A. N. Ghadge, M. M. Ghangrekar (2014). Performance Evaluation of Low Cost Scalable Air-Cathode Microbial Fuel Cell Made from Ceramic Cylinder. *11th IWA Leading Edge conference on Water and Wastewater Technologies*, 26-30 May 2014, **Abu Dhabi**, United Arab Emirates.
 157. H. Pradhan, M. M. Ghangrekar (2014). Microbial Desalination Cell: A Technology for Simultaneous Organic Matter and Salt Removal. *11th IWA Leading Edge conference on Water and Wastewater Technologies*, 26-30 May 2014, **Abu Dhabi**, United Arab Emirates.
 158. Sumaraj, Ghangrekar, M.M (2014). Development of microbial fuel cell as biosensor for detection of organic matter of wastewater. International Conference on Emerging Challenges and Issues in Environmental Protection. 23rd and 24th of January, 2014. **Raipur**, India.
 159. Jadhav D.A., Ghangrekar M. M. (2014). Effect of electrode spacing and electrode materials on performance of sediment microbial fuel cells. International Symposium on Engineering and Technology 2014. Trinity College of Engineering and Research, Pune. 9-10 January, 2014, **Pune**, India.
 160. Manaswini Behera, M.M. Ghangrekar, S. S. Das, S. Rout (2013). Material properties of earthenware separator in microbial fuel cell. 6th International Congress of Environmental Research, December 19-21, 2013; **Aurangabad**, India.
 161. Jadhav, D.A., Pandit, S., Ghadge, A.N., Das, D., Ghangrekar, M.M. 2013. Performance comparison between mixed and pure culture used as inoculum in air cathode earthen pot microbial fuel cells, poster presented in 10th National Conference on solid state Ionics, IIT Kharagpur, West Bengal (W.B.), India, Dec. 20-23. 2013.
 162. Ghadge A.N., Rajesh P.P., Pritha Chatterjee, Ghangrekar M.M. (2013). Scaling Up of a Microbial Fuel Cell Having an Air-Breathing Cathode and Multiple Electrodes. International Congress on Materials and renewable energy, **Athens**, Greece, 1-3 July 2013.
 163. Ghangrekar M.M. Harapriya Pradhan (2013). Waste to energy approach for decentralized wastewater treatment system by microbial desalination cell. Indo-Mexican workshop on sustainable water and wastewater management, NEERI, **Nagpur**, India, July 25-26, 2013.
 164. Chatterjee, P., Mondal, S., Tiwari, B.R., Ghangrekar, M.M. (2013). Performance of microbial fuel cell under psychrophilic and mesophilic temperature, *International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD 2013)* organized by Bengal Engineering and Science University, Shibpur, **Kolkata**, 7-9 February, 2013.
 165. Chatterjee, P., Pandit, S., Ghadge, A., Ghangrekar, M.M. (2013). Effect of binder loading on performance of air-cathode earthen pot microbial fuel cell. *International Symposium on New Horizons in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
 166. Mondal, S., Ghangrekar, M. M. (2013). Bioelectricity recovery from Kitchen Waste using low cost Microbial Fuel Cell. *2nd International Conference on Solid Waste 2013: Innovation in Technology and Management (ICSWHK 2013)* organized by Hong Kong Baptist University, **Hong Kong SAR of China**, May 5-8, 2013.
 167. Mondal, S., Ghangrekar, M. M. (2013). Harvesting electricity from kitchen waste using low cost Microbial Fuel Cell. *International Symposium on New Horizons in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
 168. Pradhan, H., Ghangrekar, M.M., (2013). A novel microbial desalination cell for simultaneous wastewater treatment, energy production, and desalination. *International Symposium on New Horizons in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
 169. Mishra, G.S., Mitra, A., Banarjee, R., Ghangrekar, M.M. (2013). Bioethanol Production from *Salvinia Cuculata* Using *Saccharomyces cerevisiae*. *International Symposium on New Horizons*

- in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
170. Noori, Md.T., Ghangrekar, M.M., Mitra, A., (2013). Bioelectricity Generation from Fishery wastewater by Air Cathode Earthen Microbial Fuel Cell. *International Symposium on New Horizons in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
 171. Tiwari, Bikash Ranjan., Ghangrekar, M. M. (2013). Effect of Different Sludge Pre-Treatment on the Performance of Earthen Pot Microbial Fuel Cell. *International Symposium on New Horizons in Bioenergy Research* organized by P K Sinha Center for BioEnergy, IIT **Kharagpur**, January 14-16, 2013.
 172. Ghadge, A. N., Ghangrekar, M.M. (2012). Effect of non-catalyzed electrode materials on low cost scalable microbial fuel cell performance. *International Symposium on New Horizons in Bioenergy Research*, IIT **Kharagpur**, India, January 14 – 16, 2013.
 173. Pradhan, H., Noori, Md. T., Ghangrekar, M.M., (2012). Simultaneous wastewater treatment and salt removal in a novel microbial desalination cell. *International Conference on "Advances in Biological Hydrogen Production and Applications (ICABHPA-2012) Organized by JNTU, Hyderabad, India*, December 14-15, 2012.
 174. Mypati, S.N., Ghangrekar, M. M. (2012). A composite method for wastewater treatment and electricity generation combining wetland treatment technology with sediment microbial fuel cell. *International Conference on "Advances in Biological Hydrogen Production and Applications (ICABHPA-2012) Organized by JNTU, Hyderabad, India*, December 14-15, 2012.
 175. M.M. Ghangrekar and Anil Ghadge (2012). Scaling Up of Microbial Fuel Cell Using Clay Membrane Separator. *International Conference on Industrial Biotechnology*, **Patiala**, India. November 21-23, 2012.
 176. Soumya Pandit, Vinay Patel, M.M. Ghangrekar and Debabrata Das (2012). Wastewater as Anolyte for Bioelectricity Generation in Single Chambered Microbial Fuel Cell: Effect of Different 3D Anode and Organic Loading Rate. 1st International Brainstorming Workshop On Waste To Energy In India, 24-25 August 2012, Nehru Centre, **Mumbai**, India.
 177. Anil Ghadge, Soumya Pandit, Debabrata Das and M.M. Ghangrekar (2012). Performance of Air Cathode Earthen Plot MFC for Simultaneous Wastewater Treatment with Bioelectricity Generation. 1st International Brainstorming Workshop On Waste To Energy In India, 24-25 August 2012, Nehru Centre, **Mumbai**, India.
 178. M.M. Ghangrekar, T.K. Sajana, L.M. Mohapatra, A. Mitra (2012). Effect of pretreatment of anodic inoculum and presence of algae on the performance of microbial fuel cell. 7th International symposium on Environment, 14-17 May 2012, **Athens**, Greece. ATINER'S Conference Paper Series, No: ENV2012-0074. <http://www.atiner.gr/papers.htm>
 179. Sajana, T.K., Ghangrekar, M.M., Mitra, A. (2012). In-Situ Aquaculture water remediation Using Sediment Microbial Fuel Cell. The 46th Annual Convention of ISAE and International Symposium on Grain Storage, **Pantnagar**, India, February 27-29, 2012.
 180. Ghadge, A. N., Prasad, Sriranjani, Pradhan, Harapriya, Ghangrekar, M.M. (2012). Enhancing activity of electrogenic bacteria in microbial fuel cell by BES dosing. *International Conference on "Advances in Biological Hydrogen Production and Applications (ICABHPA-2012) Organized by JNTU, Hyderabad, India*, December 14-15, 2012.
 181. Pandit, Soumya, Khilari, Santimoy Das, Debabrata, Ghangrekar, M.M. (2012). Graphene modified SS mesh anode for improved power generation in a single chambered bioelectrochemical system. *International Conference on "Advances in Biological Hydrogen Production and Applications (ICABHPA-2012) Organized by JNTU, Hyderabad, India*, December 14-15, 2012.
 182. Manaswini Behera, M.M. Ghangrekar (2011). Electricity Generation in Low Cost Microbial Fuel Cell made up of Earthenware of Different Thickness. *Leading-Edge Technologies 2011*, 6-10 June 2011, **Amsterdam**, The Netherlands (IWA-5858).
 183. Sajana T.K., Ghangrekar M.M., Mitra A. (2011). In Situ Aquaculture Wastewater Treatment Using Sediment Microbial Fuel Cell. *Leading-Edge Technologies 2011*, 6-10 June 2011, **Amsterdam**, The Netherlands (IWA-5857).
 184. Shivaram Satyam, Manaswini Behera, M.M. Ghangrekar. (2011). Performance and economics of low cost clay cylinder microbial fuel cell for wastewater treatment, to the World Renewable Energy Congress 2011, 8-13 May, 2011, **Sweden**.

185. M. Behera, S.S.R. Murthy, and M.M. Ghangrekar (2011). Effect of Operating Temperature on Performance of Microbial Fuel Cell. Microbes in Wastewater and Waste Treatment, IWA conference, **Goa**, 24-26, January 2011.
186. Manaswini Behera, P.S. Jana, M.M. Ghangrekar (2010). Electricity generation from synthetic wastewater and real sewage in an up-flow dual chambered microbial fuel cell. 3rd International conference of Environmental Research, University of **Mauritius**, 16-18 September 2010.
187. Manaswini Behera, T.T. More, Partha S. Jana, M.M. Ghangrekar (2010). Rice Mill Wastewater Treatment Using Microbial Fuel Cell. IWA World Water Congress, Montreal, **Canada**, September 19-24, 2010.
188. Manaswini Behera, Partha Jana, M.M. Ghangrekar (2010). Electricity generation and wastewater treatment in a low cost up-flow microbial fuel cell fabricated with earthen cylinder. International Symposium on Bioenergy, 5-7 January 2010, Bioenergy Symposium Series at IIT **Kharagpur**, Vol. 2, 2010, 95-103.
189. More T.T., Ghangrekar M.M. (2010). Effect of ultrasound pre-treatment to inoculum and electrode surface area on performance of microbial fuel cell. Energy Sustainability of the Water Infrastructure Using Microbial Fuel Cell Bases Technologies, ACS 239th National Meeting, San Francisco, California, **USA**, March 21-25, 2010
190. Jana P.S., Manaswini Behera, Ghangrekar M.M. (2010). Wastewater treatment and electricity generation in novel up-flow microbial fuel cell under different organic loading rates. International Conference on Emerging Trends in Energy and Environment [ICETEE], 7 - 8 January, 2010 at Sri Sairam Engineering College, **Chennai**.
191. M.M. Ghangrekar, S.S.R. Murthy, Manaswini Behera, N. M. Dutta (2009) Effect of sulfate concentration in the wastewater on microbial fuel cell performance. Journées d'Electrochimie XIV-ème, édition, Sinaia, **Romania**, 6 - 10 July 2009.
192. Sridhar P. and Ghangrekar M.M. (2008). Performance of Microbial Fuel Cell for Wastewater Treatment at Different Cathodic Electrolytes. IWA Young Water Professionals Conference 2008, Berkeley, **USA**, 16-18 July 2008.
193. Ghangrekar M.M. and Chandra Kiran P. (2008). Onsite sewage treatment using anaerobic baffled reactor with internal settler followed by aeration and UV disinfection. 8th Specialised Conference on SWWS, 2nd Specialised Conference on DEWSIN, Kumaraguru College of Technology, **Coimbatore** 641006. INDIA, February 6-9, 2008.
194. Ghangrekar M.M. and Shinde V.B. (2008). Simultaneous wastewater treatment and electricity generation in membrane less microbial fuel cell inoculated with preheated septic tank sludge. 8th Specialised Conference on SWWS, 2nd Specialized Conference on DEWSIN, Kumaraguru College of Technology, **Coimbatore** 641006. INDIA, February 6-9, 2008.
195. D. P. Mohapatra, M.M. Ghangrekar, Arunabha Mitra (2008) Sewage treatment in integrated system of UASB reactor and duckweed pond and reuse for aquaculture. 8th Specialised Conference on SWWS, 2nd Specialised Conference on DEWSIN, Organised by IWA, Kumaraguru College of Technology, **Coimbatore** 641006. INDIA, February 6-9, 2008.
196. Ghangrekar M.M. and Sridhar P. (2007). Performance evaluation of membrane and membrane-less microbial fuel cell. International conference on New Horizons in Biotechnology (NHBT-2007), NIST, **Trivandrum**, India, 26-29 November, 2007.
197. Jadhav G.S. and Ghangrekar M.M. (2007). Improving performance of MFC by design alteration and adding cathodic electrolytes. International Conference on New Horizons in Biotechnology (NHBT – 2007), NIST, **Trivandrum**, India, November 26-29, 2007.
198. Sridhar P. and Ghangrekar M.M. (2007). Application of microbial fuel cell for wastewater treatment and coincident direct electricity recovery. International conference on cleaner technologies and environmental management, 4-6 January, 2007, Pondicherry Engineering College, **Pondicherry**, India.
199. Puspendu Bhunia, Vinod B. Shinde, Makarand M. Ghangrekar (2007). Bio-energy from Sewage Treatment: The Technologies for Future. International Conference on Challenges to Civil Engineering, **Kolkata**, January 2007.
200. Ghangrekar M.M, Arunabha Mitra, and Kishor N (2006). Sewage reuse for aquaculture after treatment from oxidation and duckweed pond. 7th IWA Specialist Group Conference on Waste Stabilization Ponds Advances in Pond Technology and Management, **25 - 27 September 2006. AIT, Klong Luang**, Thailand.

201. Ghangrekar M.M. and Chadra Kiran P. (2006). Treatment of sewage in modified anaerobic baffled reactor and UV disinfection for onsite sanitation. An international perspective on environmental and water resources. Conference organized by ASCE, 18-20, December, 2006, New Delhi, **India**.
202. Puspendu Bhunia and M.M. Ghangrekar (2006). Effects of cationic polymer on biomass granulation in UASB reactors treating low strength wastewater. 3rd Biennial International conference by IWA. May 24-26, 2006, Nanyang Technology University, **Singapore**, Young Researchers 2006, Ed. By Richard Stuetz and Lim Teik-Thye, IWA publishing 143-150.
203. Ghangrekar M.M. and V.B. Shinde (2006). Microbial Fuel Cell: A New Approach of Wastewater Treatment with Power Generation. Proceeding of International Workshop on R&D Frontiers in Water and Wastewater Management 'Water 2006, NEERI, January 20-21, 2006, **Nagpur, India**, p.686-697.
204. Ghangrekar M.M. and V.B. Shinde (2006). Wastewater Treatment in Microbial Fuel Cell and Electricity Generation: A Sustainable Approach. Proc. of 12th international sustainable development research conference. April 6-8, 2006, **Hong Kong**
205. Puspendu Bhunia and M.M. Ghangrekar (2005). Performance of UASB-UAF system for two stage anaerobic treatment of domestic sewage. Proceedings of the 9th IWWA International Seminar on ECOSCAN, 25-26 November, **Mumbai**. Sponsored by International Water Association. 281- 288.
206. Ghangrekar M.M., Asolekar S.R., and Joshi S.G. (2005). Optimum operating parameters to enhance start-up of UASB reactor. Presented in 1st IWA-ASPIRE Conference, 10-15 July 2005, **Singapore**
207. Ghangrekar M.M. and Puspendu Bhunia (2005). Design and start-up of Upflow Anaerobic Sludge Blanket Reactor. Proc. of International Conference on Advances in Industrial Wastewater Treatment, 9 – 11 February, 2005, Anna University, **Chennai, India**
208. Regulwar D.G., Ghangrekar M.M., and P. Anand Raj (2004). Joint operation of multiple reservoir systems – A genetic algorithm approach. Proceedings of International Conference on Advanced Modelling Techniques for Sustainable Management of Water Resources, 28-30 January 2004, NIT, **Warangal, India**.
209. Ghangrekar M.M. (2004). Design and start-up of UASB reactor. Indo-French Seminar on “Emerging Technologies for Water and Wastewater Management” 9-12 February 2004, IIT **Delhi, India**
210. Ghangrekar M.M. (2003). Performance and cost potency of anaerobic sewage treatment. Proceedings of 9th IWA specialized international conference on “Design, Operation, and Economics of Large Wastewater Treatment Plants”. Pp. 379-386, 1- 4 September 2003, Prague Institute of Chemical Technology, **Czech Republic**.
211. Ghangrekar M.M. (2002). Cost efficacy and performance of UASB reactor for sewage treatment. Invited Paper presented at Workshop on “Ponds systems and UASB reactor treatment for sewage”, Sponsored by Swedish International Development Authority, at IIT, **Mumbai**, 24-25 January, 2002.
212. Regulwar D.G., Ghangrekar M.M., and Anand Raj (2002). Optimal Reservoir operation for irrigation using genetic algorithms. Proceedings of International conference on Advances in Civil Engineering, IIT, **Kharagpur**, January 3-5, 2002.
213. Ghangrekar M.M., Sakle J.J., and Kahalekar U.J. (2000). UASB process: Application for sewage treatment. Proceedings of International Conference on Inovative Technologies for Rural Water Supply & Environmental Sanitation, **Roorkee**, Oct. 12-13, 2000.
214. Ghangrekar, M.M., Asolekar, S.R., and Joshi, S.G. (1998). Performance of UASB reactors started under different loading conditions. Proceedings of WEF-Tech Asia, March 7-11, 1998, **Singapore**.
215. Ghangrekar, M.M., Asolekar, S.R., Ranganathan, K.R., and Joshi, S.G. (1996). Experience with UASB reactor start-up under different operating conditions. *Proceedings of 18th IAWQ Biennial International Conference*, **Singapore**, June 23-28, 2, 253-260.

NATIONAL CONFERENCE: 46

1. M.M. Ghangrekar (2023). Waste Water Management: Issues and Challenges. In National Seminar on Urban Waste Management & Air Pollution Control: Issues & Challenges, 20-21st January, 2023 at The Stadel Hotel, Salt Lake, Kolkata.
2. M.M. Ghangrekar (2023). How to execute successful research. In “Research for Resurgence Conclave” under 108th Indian Science Congress on 5th January 2023 at Nagpur. Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur.

3. M.M. Ghangrekar (2022). A pilot scale demonstration of O₃/H₂O₂/UV coupled solar concentrator with membrane bioreactor and activated carbon for treatment of petrochemical wastewater. CSIR-CSMCRI CHEMCON 2022, 27-30 December 2022, Kanpur, India
4. Monali Priyadarshini, Indrasis Das, M.M Ghangrekar (2019). Application of Metal Organic Framework in Wastewater Treatment : Review, 2nd National Conference on Sustainable Advanced Technologies for Environmental Management (SATEM), Indian Institute of Engineering Science and Technology Shibpur, West Bengal, December 18-20, 2019.
5. Azhan Ahmad, Sovik Das, M. M. Ghangrekar (2019). Removal of Xenobiotics from Wastewater by Electrocoagulation: A mini-review. 2nd National Conference on Sustainable Advanced Technologies for Environmental Management (SATEM), Indian Institute of Engineering Science and Technology Shibpur, West Bengal, December 18-20, 2019.
6. Sovik Das, M. M Ghangrekar (2019). Determination of the optimal mode of operation of microbial electrosynthesis cell for the production of biofuels through carbon sequestration. DBT National Workshop on Bioenergy-2019, Kolkata, India, October 17-18, 2019.
7. Swati Das, M. M Ghangrekar (2019). Quorum sensing mediated signal triggers microalgal lipid synthesis and also enhances power generation in microbial fuel cell. DBT National Workshop on Bioenergy-2019, Kolkata, India, October 17-18, 2019.
8. Ghangrekar M.M. (2019). Towards sustainable and reliable sanitation infrastructure to facilitate reuse of treated water for reducing stress on freshwater' February 22-23, 2019, SIDM-2019, VNIT, Nagpur
9. Ghangrekar M.M. (2017). Exploiting Anaerobic and Bioelectrochemical processes to facilitate reuse of treated water and resource recovery. Regional conference of the National Green Tribunal (NGT), Eastern Zone, 9-10 September 2017, Guwahati, India P. 107-109.
10. I. Sharma and M.M Ghangrekar (2015). Challenges for bacterial population in Microbial Fuel Cells surrounded by unwittingly co-inoculated inhibitors. 6th world congress on biotechnology, OMICS International Conference, 05-07 October 2015, New Delhi, p. 238.
11. I. Sharma and M.M. Ghangrekar (2014). Application of electro-chromic tungsten oxide nano wires to determine bioelectrogenesis in microbial fuel cells. In Conference Proceeding of 3rd International Conference on "Innovative Approach in Applied Physical, Mathematical/ Statistical, Chemical Sciences and Emerging Energy Technology for Sustainable Development" (APMSCSET-2014), 27-28 September 2014, JNU-New Delhi, p. 132.
12. N. Verma, M.M. Ghangrekar (2015). Performance of a novel air cathode microbial fuel cell using PVC battery separator as membrane. National conference on Materials for Energy Conversion and storage (NCMECS) 2015, VIT University Chennai, 19-21 March 2015.
13. I. Sharma and M.M Ghangrekar; Inhibitory Effects of fluoride on bacterial metabolism present in microbial fuel cells, Recent Advances in Bioenergy Research Volume III-441-451 3rd National Conference on Recent Advances in Bio-Energy Research, 22-24 Nov'2013- Kapurthala, India
14. Sumaraj, M.M. Ghangrekar., Influence of proton exchange membranes and oxidants in development of microbial fuel cell for detection of organic matter in wastewater, Abstract to be submitted for 30th National Convention on Environmental Engineers and National Seminar on Fostering Greenovations for Green Growth, August 2014, The Institution of Engineers (India), Bangalore.
15. Ghosh Ray, S., Ghangrekar, M. M (2013). Evaluation of electrical properties under different operating conditions of bio-electrochemical system treating thin stillage. 3rd National conference on recent advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
16. Iti Sharma and M.M. Ghangrekar (2013). Inhibitory effects of fluoride on bacterial metabolism in Microbial Fuel Cells. 3rd National conference on recent advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
17. Jadhav D.A., Ghangrekar M.M. (2013). Effect of salinity, acetate addition and alteration of sediment on performance of benthic microbial fuel cells. 3rd National conference on recent advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
18. Ghangrekar M.M. and Ghadge A.N. (2013). Optimizing anodic chamber volume and power density of microbial fuel cell using polarization curves for scaling up. 3rd National conference on recent

- advances in bio-energy research, November 22-24, 2013. SSS National Institute of Renewable Energy, Kapurthala.
19. Harapriya Pradhan and M.M. Ghangrekar (2013). Use of microbial desalination cells for simultaneous removal of organic matter and dissolved inorganic salts from wastewater. Sustainable Water Resources Development and Management (SWARDAM-2013); 30 September- 01 October, 2013, Govt. College of Engineering, **Aurangabad**. P. 373
 20. Swagatam Das, Dipak A. Jadhav, M.M. Ghangrekar (2013). Comparison of air cathode microbial fuel cells packed with lignite and GAC as anodic bed materials and scaling up of bioelectric septic tank MFC. Sustainable Water Resources Development and Management (SWARDAM-2013); 30 September- 01 October, 2013, Govt. College of Engineering, **Aurangabad**. Pp382-390
 21. Chatterjee, P., Pandit, S., Ghadge, A., Ghangrekar, M.M. (2012). Performance comparison of air-breathing cathode and aqueous cathode earthen pot microbial fuel cell, *National Conference on Recent Advances in Bio-energy Research*, Organized by Sardar Swaran Singh National Institute of Research, **Kapurthala**, Punjab, India, December 7-8, 2012.
 22. Ghangrekar, M.M., (2012). Development of microbial fuel cell for electricity generation using wastewater as fuel. *National Conference on Recent Advances in Bio-energy Research*, Organized by Sardar Swaran Singh National Institute of Research, **Kapurthala**, Punjab, India, December 7-8, 2012.
 23. T.K. Sajana, M.M. Ghangrekar, A. Mitra (2012). In-Situ Aquaculture water Remediation Using Sediment Microbial Fuel Cell. The 46th Annual Convention of ISAE and International Symposium on Grain Storage. February 27-29, 2012. At G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, India
 24. M. Behera, M.M. Ghangrekar (2011). Energy Recovery Wastewater Treatment Processes. Seminar on Importance of Water Chemistry in Thermal Power Plant and Wastewater Treatment, organized by WBPDC, Institution of Engineers India, Kolkata 10 July 2011.
 25. M.M. Ghangrekar (2009). Design and start-up of upflow anaerobic sludge blanket (UASB) reactor for methane recovery from wastewater. Proc. of National Symposium on Bioenergy, IIT Kharagpur, 23rd November 2009, 97-111.
 26. M.M. Ghangrekar (2009). Microbial Fuel Cell: A technology for wastewater treatment and renewable energy. Proc. of National Symposium on Bioenergy, IIT Kharagpur, 23rd November 2009, 42-51.
 27. M.M. Ghangrekar (2009). Bioenergy from organic wastes. Proc. of National Symposium on Bioenergy, IIT Kharagpur, 23rd November 2009, 1-11.
 28. M.M. Ghangrekar (2009). Microbial fuel cell: A bio-electrochemical device for conversion of organic matter to direct electricity. National Conference on Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), January 13 – 15, 2009, BITS – Pilani, Goa Campus.
 29. Partha Sarathi Jana and M.M. Ghangrekar (2009) Performance evaluation of a novel up-flow microbial fuel cell for maximizing power. National Conference On Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), January 13 – 15, 2009, Birla Institute Of Technology And Science (BITS) – Pilani, Goa Campus.
 30. T.T. More, Manaswini Behera, and M.M. Ghangrekar (2009). Effect of cathode surface area and sonication of inoculum on power production of microbial fuel cell. National Conference On Anaerobic Digestion and Renewable Energy Through Microbes (ADREM), January 13 – 15, 2009, Birla Institute Of Technology And Science (BITS) – Pilani, Goa Campus
 31. M.M. Ghangrekar (2008). "Bioenergy recovery during treatment of organic wastes" at the National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008, Aurangabad. Excel India Publisher, 334-346.
 32. G.S. Jadhav, T. T. More and M.M. Ghangrekar (2008). Microbial Fuel Cell: Application in Wastewater Treatment. National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008, Govt. College of Engineering, Aurangabad, Excel India Publisher, 397-404.
 33. Ravindra Thanedar, M.M. Ghangrekar, P.P. Vitkar (2008). Techno Financial Analysis of Small, Decentralized, Low Cost Wastewater Treatment Units. At the National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", 13-14 June, 2008, Aurangabad.

34. D. P. Mohapatra, Biju Abraham, M.M. Ghangrekar, Arunabha Mitra (2007). Studies on sewage fed aquaculture after treatment in UASB reactor and duckweed pond. Workshop On Sustainability Of Indian Aquaculture Industry (SUSTAIN-AQUA 07), September 28-29, 2007. IIT, Khargpur, India
35. Ghangrekar M.M. (2004). Wastewater Reuse and secondary treatment of wastewater using UASB reactor. Proceedings of one-day workshop on Reuse, Recycling and conservation of Industrial Wastewater, 10th July 2004, S.G.G.S. College of Engineering, Nanded – 431 606. India.
36. Ghangrekar M.M. and Smita Takalkar (2003). Software for design and operation of UASB reactor. Presented in 2003 CESE National Conference, December 8-9, 2003, CESE, IIT, Mumbai.
37. Ghangrekar M.M. and U.J. Kahalekar (2003). Sewage Treatment in UASB Reactor: Important Issues. Proceedings of National Seminar on Challenges to Environmental Protection and possible solutions, Organised by Inst. of Engineers (India) and IWWA, Amaravati Centre, 11-12 January 2003.
38. Ghangrekar M.M., Kahalekar U.J., Sakle J.J., S.V. Takalkar (2002), Pilot-scale performance and economics of UASB reactor for sewage treatment. Proceedings of IAEM National conference on Pollution Prevention and Control in India, VRCE, Nagpur, March 2,3 2002.pp 17-19.
39. Ghangrekar M.M., Sakle J.J., and Kahalekar U.J. (2001). Treatment of sewage using UASB reactor and Granular Media Filtration. Proceedings of IAEM National conference on Recent Advances in Waste Management, Varanasi, February 23-25, 2001.
40. Sharma, R.R., Ghangrekar M.M., Asolekar S.R., and Sureshkumar G.K. (1999). Denitrification of high strength wastewater in laboratory USB reactor. Proceedings of Second annual conference of the Indian Environmental Associate ‘Wastewater Management in Next Decade’, May 14-15, World Trade Centre, Mumbai, 7-1-25.
41. Ghangrekar, M.M., Joshi, S.G., and Asolekar, S.R. (1999). Effect of solid retention time during step increase in loading in UASB reactor. Proceedings of the National Seminar on Advances in Industrial Waste Treatment, Nagpur, 13-14 Jan. 1999, 242-249.
42. Ingole R.V. and Ghangrekar M.M. (1999). Application of UASB reactor for wastewater treatment. National Seminar on Pollution, It's control and Disaster Planning, sponsored by U.G.C. western region, Pune, at Deogiri College, Aurangabad, February 27-28, 1999.
43. Ghangrekar, M.M., Joshi S.G. and Asolekar, S.R. (1996). Effect of duration of cold storage and operational reactor breakdown on restart. Proceedings of All India Seminar on Challenging Problems In Environmental Management, Institution of Engineers, Nagpur (MS), 13-14 September.
44. Ghangrekar, M.M., Asolekar, S.R., Ranganathan, K.R., and Joshi, S.G. (1995). Effects of loading rates on UASB reactor start-up. Proceedings of CHEMCON'95, Institute of Chemical Engineers, Kalpakam (TN), India, 27-30 December.
45. Ghangrekar, M.M., Asolekar, S.R., and Joshi, S.G. (1995). The factors affecting granulation and performance of UASB reactors. Proceedings of XI National Convention for Environmental Engineers, Roorkee (UP), 10-11 November.
46. Dhabadgaonkar, S.M., and Ghangrekar, M.M. (1992). UASB process: An appropriate technology for wastewater treatment in Indian context. Paper presented at VIIIth National convention for Environmental Engineers, Alahabad (UP), India, 30-31 Octomber.

BOOKS

Book Author:

Makarand M. Ghangrekar (2022). Wastewater to Water: Principles, Technologies and Engineering Design, Springer Publication, September 2022. Germany.

Book Editor:

1. Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons. To be published in November 2023.
2. “Microconstituents in the environment: occurrence, fate, removal and management”, Editors, M. Behera, M.M. Ghangrekar, Surampalli Rao, Tian Zhang. Manuscript submitted, likely to

- be published January 2023. John Wiley & Sons.
2. 'Sustainability in Environmental Engineering and Science' Select Proceedings of SEES 2019. Editors: Sunil Kumar, Ajay Kalamdhad, Makarand M. Ghangrekar. Springer Nature Singapore, 2021.
 3. 'Bioenergy Symposium Series at IIT Kharagpur, Vol. 1', 2009, Editors: M.M. Ghangrekar and Saikat Chakraborty. ISBN 978-81-907741-4-7, Cygnus Publisher, Kolkata

Contributed articles in the Following Books: 68

1. Indrasis Das, Makarand M. Ghangrekar (2023). Pilot-Scale Case Performance of Bio-electrochemical Systems. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons, USA.
2. B Neethu, Swati Das, M. M. Ghangrekar (2023). Photosynthetic microbial fuel cell, bio photovoltaic cell, and microbial carbon-capture cell. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons, USA.
3. Azhan Ahmad, Monali Priyadarshini, and Makarand M. Ghangrekar (2023). Microbial remediation cell. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons, USA.
4. Rishabh Raj, Sovik Das, M.M. Ghangrekar (2023). Microbial Electrolysis Cell. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons, USA.
5. Indrajit Chakraborty, Makarand M. Ghangrekar (2023). Different types of bioelectrochemical systems. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.
6. Monali Priyadarshini, Sakkarapalayam Murugesan Senthil Kumar, M.M. Ghagrekar (2023). Role of catalysts in bioelectrochemical systems. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.
7. Das, Rishabh Raj, M.M. Ghangrekar (2023). Biotic components of different types of bio-electrochemical systems. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.
8. S. M. Sathe and M. M. Ghangrekar (2023). Bio-electrochemical Systems: Configurations and Materials. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.
9. Anil Dhanda, Shraddha Yadav, Rishabh Raj, M. M. Ghangrekar (2023). Fuel cell and Bio-fuel cell. In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.

10. Anil Dhanda, Rishabh Raj, M. M. Ghangrekar, Rao Surampalli, Tian C. Zhang (2023). Way Forward and Conclusion. Chapter 21 In *Microbial Electrochemical Technologies: Fundamentals, Principles, Types and Applications*, Editors M.M. Ghangrekar, Surampalli Rao, Tian Zhang and Narcis Duteanu, John Wiley & Sons.
11. Makarand M. Ghangrekar, Monali Priyadarshini, Azhan Ahmad, Shraddha Yadav (2023). Application of Electrochemical Technologies for the Efficacious Removal of Persistent Organic Pollutants from Wastewater. Chapter 6 in book *Energy, Environment, and Sustainability, : Persistent Pollutants in Water and Advanced Treatment Technology*, Ed. Alok Sinha, Swarna Pratap Singh, A.B. Gupta, Springer publication.
12. Chinmayee Das, Mario Vino Lincy G., Tajamul Shafi, Brajesh Kumar Dubey, Makarand M. Ghangrekar and Shamik Chowdhury (2023). Ecological effects of emerging contaminants: Ecotoxicity and relative environmental risk. In *Emerging Aquatic Contaminants*, Ed. Manish Kumar, Sanjeeb Mohapatra, Karrie A. Weber, Elsevier, Amsterdam, Netherlands, 375-404.
13. Makarand M. Ghangrekar, Monali Priyadarshini, Azhan Ahmad, Shraddha Yadav (2022). Application of electrochemical technologies for the efficacious removal of persistent organic pollutants from wastewater. Book Chapter in the book "Persistent Pollutants in Water and Advanced Treatment Technology" Ed. Alok Sinh, Swatantra P Singh, A.B. Gupta, Springer.
14. Monali Priyadarshini, S. M. Sathe, M. M. Ghangrekar (2022). Hybrid Treatment Solutions for Removal of Micropollutant from Wastewaters. Chpater 19 in the book *Microconstituents in theenvironment: occurrence, fate, removal and management*. Ed. Rao Y. S., T.C. Zhang, J. Kao, M.M. Ghangrekar, P. Bhunia and M. Behera. Wiley-VCH, USA.
15. Indrajit Chakraborty, Manikanta M. Doki, M. M. Ghangrekar (2022). Laboratory to Field Application of Technologies for Effective Removal of the Micro-constituents From Wastewaters. Chapter 22 in the book *Microconstituents in theenvironment: occurrence, fate, removal and management*. Ed. Rao Y. S., T.C. Zhang, J. Kao, M.M. Ghangrekar, P. Bhunia and M. Behera. Wiley-VCH, USA.
16. Rishabh Raj, Sovik Das, Manaswini Behera, M. M. Ghangrekar (2022). Bio-electrochemical systems and application for micropollutant removal. Chapter 18 in the book *Microconstituents in theenvironment: occurrence, fate, removal and management*. Ed. Rao Y. S., T.C. Zhang, J. Kao, M.M. Ghangrekar, P. Bhunia and M. Behera. Wiley-VCH, USA.
17. Da Li, Samet Şahin, Paniz Izadi, Makarand Ghangrekar, Narcis M.Duteanu, Benjamin Erable, Keith Scott, Eileen HaoYua (2022). Biological and Microbial Fuel Cells. Chapter 4.11 in *Comprehensive Renewable Energy (Second Edition)*, Ed. Trevor M. Letcher, Elsevier, Volume 4, 2022, 290-316.
18. Sovik Das, Ambika Arkatkar, Arvind Kumar Mungray, Makarand M. Ghangrekar (2021). Microbial Electrolysis Cell Based Wastewater Treatment and Resource Recovery. Chapter 3 in *Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies*, Ed. Arvind Mungrey, Elsevier. 37-50.
19. M.M. Ghangrekar, Santosh Kumar, Indrajit Chakraborty (2021). Environmental Impacts and Necessity of Removal of Emerging Contaminants to Facilitate Safe Reuse of Treated Municipal Wastewaters. Chapter 6 in *Environmental Degradation: Challenges and Strategies for Mitigation*. Ed. R. Yadava, Springer.

20. M. M. Ghangrekar and Dibyojyoty Nath (2021). Microbial Electrochemical Technologies for Wastewater Treatment: Insight into Theory and Reality. Chapter 11 in Vol 2_Clean Energy and Resource Recovery, Ed. Vinay Kumar Tyagi, Manish Kumar, Alicia K.J. An, Zeynep Cetecioglu. Elsevier
21. M. M. Ghangrekar, Anil Dhanda, S.M. Sathe, Indrajit Chakraborty (2021). Application of graphitic carbon nitride-based cathode catalysts in microbial fuel cell. In the book titled 'Nanostructured Carbon Nitrides for Sustainable Energy and Environment Applications', edited by Shamik Chowdhury and Mu. Naushad, Elsevier, 63-80.
22. M. M. Ghangrekar, S. M. Sathe, C. N. Khuman (2022). Integration of bioelectrochemical systems with anaerobic digestion. In book titled Renewable energy technologies for energy efficient sustainable development, published within the Springer book series ' Applied Environmental Science and Engineering for a sustainable future Ed. Piet Lens and Arindam Sinharoy. Springer. 295-318.
23. M.M. Ghangrekar, Swati Das (2021). Integration of wastewater treatment with algal cultivation for the production of biofuel and bioenergy. Chapter 14 in An Integration of Phycoremediation Processes in Wastewater Treatment, Ed. Maulin Shah, Rodriguez-Couto, Celia Vargas-De-La-Cruz, Jayanta Kumar Biswas, Elsevier, 289-312.
24. M. M. Ghangrekar, Azhan Ahmad, S.M. Sathe, Indrajit Chakraborty (2021). Treatment of pharmaceutical compounds present in wastewater using microbial fuel cells. A chapter 6 in a book titled "Removal of Refractory Pollutants from Waste Water Treatment Plant" Ed. Maulin Shah, CRC Press. 99-112.
25. M. M. Ghangrekar, Santosh Kumar, Azhan Ahmad, Sovik Das (2020). Concomitant bioenergy production and wastewater treatment employing microbial electrochemical technologies. Chapter in Book Biofuels and Bioenergy, Ed. Baskar Gurunathan. Elsevier.
26. M. M. Ghangrekar, S. M. Sathe, Swati Das (2020). Bioenergy and valuables recovery during wastewater treatment using bio-electrochemical systems. Chapter 5, In the book titled "Comprehensive Renewable Energy, Second Edition" Ed. Janie Ling Chin, Tony Roskilly. Elsevier. vol. 5, pp. 259–272.
27. Makarand M. Ghangrekar, Monali Priyadarshi (2021). Removal of emerging contaminants present in wastewater by using advanced oxidation processes" Chapter 2 in the book titled "An Innovative Approach of Advanced Oxidation Process in WasteWater Treatment" Ed. Maulin Shah, Nova Science Publishers, New York, USA. 19-38.
28. M.M. Ghangrekar, Swati Das, Sovik Das (2021). Biofuel cell: Existing formats, production level, constraints and potential uses. Chapter 28 In Handbook of Biofuels, Ed. Sahay, Elsevier publication.
29. M.M. Ghangrekar, Sovik Das, Swati Das (2020). Microbial electrochemical technologies for CO₂ sequestration: Knowledge gaps and perspectives, Chapter 15, in Circular Bioeconomy: Current Developments and Future Outlook, Ed. Sunita Varjani, Ashok Pandey, Rajesh Tyagi, Elsevier. Amsterdam, Netherlands, 413-444.
30. M.M. Ghangrekar, Brajesh K. Dubey, Indrajit Chakraborty, Roshan Appa (2020). Bio-electrochemical systems for fuel production: A techno-economic analysis, Chapter 14, in Circular Bioeconomy: Current Developments and Future Outlook, Ed. Sunita Varjani, Ashok Pandey, Rajesh Tyagi, Elsevier. Amsterdam, Netherlands, 379-412.
31. G. D. Bhowmick, M. M. Ghangrekar, R. Banerjee (2021). Improved wastewater treatment by using integrated microbial fuel cell-membrane bioreactor system along with ruthenium/activated carbon cathode catalyst to enhance bio-energy recovery. Chapter 15 In Climate impact on Water resources in India in Water Science and Technology Library, Ed. Ashish Pandey, S.K. Mishra, M.L. Kansal, R.D. Singh, V.P. Singh, Springer Nature. 183-192.

32. Ghangrekar, M.M., Bhowmick, G.D., Sathe, S.M., 2020. An overview of membrane bioreactor coupled bioelectrochemical systems, in: *Integrated Microbial Fuel Cells for Wastewater Treatment*. <https://doi.org/10.1016/b978-0-12-817493-7.00012-6>. Elsevier, 2020, Pages 249-272
33. M.M. Ghangrekar, B. Neethu (2020). Bioelectrochemical System for Bioremediation and Energy Generation. Chapter 13 in *Microbial Bioremediation & Biodegradation*, Editor: Maulin Shaha, ISBN:978-981-15-1811-9. Springer Nature publication. Singapore, Pp. 365-391.
34. M. M. Ghangrekar, S. M. Sathe, I. Chakraborty (2019). In Situ Bioremediation Techniques for The Removal of Emerging Contaminants and Heavy Metals Using Hybrid Microbial Electrochemical Technologies. Chapter 9, In *Emerging Technologies in Environmental Bioremediation*, Ed. Maulin Shaha, Susana Rodriguez-Couto, S. Sevinc, Sengor, ELSEVIER, Amsterdam, The Netherlands, pp. 236-253.
35. M. M. Ghangrekar & I. Chakraborty. 2019. "Exploiting Bio-electrochemical systems for wastewater treatment and value added product recovery", *Post Treatments of Anaerobically Treated Effluents*, Eds. Vinay Kumar Tyagi; Abid Ali Khan; Ng Wun Jern; Anwar Khursheed; A. A. Kazmi, IWA Publising, London, UK. Pp. 389-408.
36. Makarand M. Ghangrekar, Bikash R. Tiwari (2020). Development of low-cost microbial fuel cell for converting waste to electricity and abating pollution. Chapter 9 in *Environmental Management in India: Waste to Wealth*, Ed. Shalini Yadav, Abdelazim Negm, Ram Narayan Yadava, Springer, Zug, Switzerland. 167-198. DOI : 10.1007/978-3-030-93897-0.
37. Makarand M. Ghangrekar, Sovik Das, Bikash R. Tiwari (2020). Integration of bio-electrochemical systems with other existing wastewater treatment processes. Chapter 11 in book title *Integrated Microbial Fuel Cells for Wastewater Treatment* Ed. Rouzbeh Abbassi, Asheesh K. Yadav, Vikram Garaniya, Faisal Khan, Elsevier, 229-248.
38. Makarand M. Ghangrekar, Gourav Dhar Bhowmick, S.M. Sathe (2020). An overview on membrane bioreactor coupled bioelectrochemical systems. Chapter 12, in book title *Integrated Microbial Fuel Cells for Wastewater Treatment* Ed. Rouzbeh Abbassi, Asheesh K. Yadav, Vikram Garaniya, Faisal Khan, Elsevier, 249-272.
39. Soumya Pandit, Kuppam Chandrasekhar, Dipak Ashok Jadhav, Makarand Madhao Ghangrekar, Debabrata Das (2019). Contaminant Removal and Energy Recovery in Microbial Fuel Cells. In *Microbial Biodegradation of Xenobiotic Compounds*, Ed. Young-Cheol Chang, CRC Press, Boca Raton, USA. Pp 76-94.
40. Neethu B., G.D. Bhowmick and M.M. Ghangrekar (2019). Yeast and Algae as Biocatalysts in Microbial Fuel Cell. In *Waste to Sustainable Energy MFCs – Prospects through Prognosis* Ed. Lakhveer Singh and Durga Madhab Mahapatra. CRC Press, London, UK. PP 141-168.
41. Deepak A Jadhav, B. Neethu, M.M. Ghangrekar (2019). Microbial Carbon Capture Cell: Advanced Bio-electrochemical System for Wastewater Treatment, Electricity Generation and Algal Biomass Production. Chapter 14 In *Application of Microalgae in Wastewater Treatment; Volume 2: Biorefinery Approaches of Wastewater Treatment*. ISBN: 978-3-030-13908-7. Pp 317-338.
42. M.M. Ghangrekar and Pritha Chatterjee (2018). New age of Wastewater Treatment employing Bio-electrochemical Systems. In book *Water Remediation*, Ed. S. Bhattacharya, Springer.
43. M.M. Ghangrekar and Pritha Chatterjee (2018). Classification of Water Pollutants and Effects on Environment. In *Carbon Nanotube for Clean Water*, Editors: Rasel Das (Germany), published by Springer. Pp 11-26.
44. Noori M. T., Chatterjee, P., Ghangrekar, M.M. and Mukherjee, C.K. (2018). Low-cost solutions for fabrication of microbial fuel cells: Ceramic separator and electrode modifications. In: *Progress and Recent Trends in Microbial Fuel Cells*, Ed(s): Kundu, P., Elsevier, pp. 95 – 124, DOI: 10.1016/B978-0-444-64017-8.00007-5.
45. Harapriya Pradhan, Makarand Ghangrekar (2019). Effect of Cathodic Electron Acceptors on the Performance of Microbial Desalination Cell. Chapter 23 in book *Waste Water Recycling and Management*, Ed. Sadhan Ghosh, Springer Publication. ISBN:978-981-13-2618-9. PP 305-315.
46. Dipak A. Jadhav, Makarand M. Ghangrekar, Narcis Duteanu, 2017. Microbial Fuel cell: An overview and recent progress towards scaling up, Book chapter, *Microbial fuel cell: A*

- bioelectrochemical system that converts waste to watts, Capital Publishing, Springer, Switzerland. Pp 447 - 466.
47. Noori MD. T., Mukherjee C.K., Ghangrekar M.M (2016). Sustainable Aquaculture Practices for High Fish Production with Minimal Environmental Impact: A Brief Review. In. Precision Farming and Resource Management, Eds: D.K. Swain, S. Dutta Gupta, B.S. Das, C.K. Mukherjee, Kamlesh N. Tiwari, Madan Kumar Jha, Chandranath Chatterjee, Ashok Mishra, V.K. Tiwari, H.Rehman, E.V. Thomas, R. Machavaram, ISBN: 978-93-86256-29-4, Ch. 37, p 393 – 403.
 48. Paul D., Ghangrekar M.M., Mitra A (2016). Sediment Microbial Fuel Cell as an Avenue for In Situ Bioremediation of Aquatic Sediment: A Review. In. Precision Farming and Resource Management, Eds: D.K. Swain, S. Dutta Gupta, B.S. Das, C.K. Mukherjee, Namlesh N. Tiwari, Madan Kumar Jha, Chandranath Chatterjee, Ashok Mishra, V.K. Tiwari, H.Rehman, E.V. Thomas, R. Machavaram, ISBN: 978-93-86256-29-4, Ch. 37.
 49. Duteanu, N., Balasoiu, A., Chatterjee, P., Ghangrekar, M.M. (2017). A basic overview of Fuel Cells, Book chapter, Organic-Inorganic Composite Polymer Electrolyte Membranes, Springer, 193-217. DOI: 10.1007/978-3-319-52739-0_8
 50. Md. T. Noori, M.M. Ghangrekar, C.K. Mukherjee (2017). Sediment microbial fuel cell assisted with constructed wetland – Challenges and future prospects. Microbial fuel cell: A bioelectrochemical system that converts waste to watts, Capital Publishing, Springer, Switzerland. Pp. 335-352, DOI: 10.1007/978-3-319-66793-5_17
 51. Md. T. Noori, M.M. Ghangrekar, A. Mitra and C.K. Mukherjee (2015). Enhanced Power Generation in Microbial Fuel Cell using MnO₂ Catalyzed Cathode Treating Fish Market Wastewater. Recent Advances in Bio-Energy Research (ICRABR–2015)”. Excel India Publishers. pp. 285-294. DOI: https://doi.org/10.1007/978-81-322-2773-1_21.
 52. Rajesh P.P. and M.M. Ghangrekar (2015). Bioelectricity Generation from Marine Algae Chaetoceros using Microbial Fuel Cell. Recent Advances in Bio-Energy Research (ICRABR–2015)”. Excel India Publishers.
 53. B.R. Tiwari and M.M. Ghangrekar (2015). Selective Enrichment of Electrochemically Active Bacteria in Microbial Fuel Cell by Pretreatment of Mixed Anaerobic Sludge to be Used as Inoculum. Recent Advances in Bio-Energy Research (ICRABR–2015)”. Excel India Publishers.
 54. I. Sharma and M.M Ghangrekar (2014) Inhibitory Effects of fluoride on bacterial metabolism present in microbial fuel cells, Recent Advances in Bioenergy Research, Volume III; Published by SSS-NIRE, Kapurthala, Ed. S. Kumar, A. K. Sarma, S. K. Tyagi, Y. K. Yadav, ISBN: 978-81-927097-2-7 441-451.
 55. S. Ghosh Ray, M.M. Ghangrekar (2014). Evaluation of electrical properties under different operating conditions of bio-electrochemical system treating thin stillage. Recent Advances in Bioenergy Research Volume III. Electronic version published by SSS-NIRE. Ed. S. Kumar, A. K. Sarma, S. K. Tyagi, Y. K. Yadav, ISBN 978-81-927097-2-7. 391-402.
 56. D.A. Jadhav, M.M. Ghangrekar (2014). Effect of salinity, acetate addition and alteration of sediment on performance of benthic microbial fuel cells. Recent Advances in Bioenergy Research Volume III. Electronic version published by SSS-NIRE. Ed. S. Kumar, A. K. Sarma, S. K. Tyagi, Y. K. Yadav, ISBN 978-81-927097-2-7.
 57. Chatterjee, P., Pandit, S., Ghadge, A., Ghangrekar, M.M. (2013). Performance comparison of air-breathing cathode and aqueous cathode earthen pot microbial fuel cell, Book chapter, Recent Advances in Bioenergy Research, Volume II. SSS-NIRE. Ed. S. Kumar, A. K. Sarma.
 58. Ghangrekar M.M. and Ghandge A.N. (2013). Scaling up of microbial fuel cell using clay membrane separator and non-catalyzed electrode materials. Advances in Industrial Biotechnology, Editor. R. Singh, Ashok Pandey, Christian Larroche, I K International Publishing, New Delhi, pp 45-57.
 59. I. Sharma and M.M Ghangrekar (2013). Inhibitory Effects of fluoride on bacterial metabolism present in microbial fuel cells, Recent Advances in Bioenergy Research, Volume III; Published by SSS-NIRE, Kapurthala, Ed. S. Kumar, A. K. Sarma, S. K. Tyagi, Y. K. Yadav, ISBN: 978-81-927097-2-7 441-451.
 60. Ghangrekar M.M. and Manaswini Behera (2012). Suspended growth processes. In *Comprehensive water quality and purification*, Volume 3, Editor: S. Sengupta, Elsevier publication.

61. Keith Scott, Eileen Hao Yu, M.M. Ghangrekar, Narcis M. Duteanu, Benjamin Erable (2012). Microbial & biological Fuel Cells. In *Fuel Cells and Hydrogen Technology*, Volume 4, 2012: 277-300, Elsevier publication.
62. M.M. Ghangrekar and Manaswini Behera (2011). Sustainable Wastewater Treatment: Strategies and Requirements. Editor S.R. Garg. Environmental Health Risk Mitigation, Satish Serial Publishing House, Delhi.
63. Manaswini Behera, Partha Jana, M.M. Ghangrekar (2010). Electricity generation and wastewater treatment in a low cost up-flow microbial fuel cell fabricated with earthen cylinder. Bioenergy Symposium Series at IIT Kharagpur, Vol. 2, 2010, Cygnus Publisher, Kolkata, 95-103. ISBN 978-81-907741-5-4.
64. M.M. Ghangrekar (2009). Design and start-up of upflow anaerobic sludge blanket (UASB) reactor for methane recovery from wastewater. Bioenergy Symposium Series at IIT Kharagpur, Vol. 1, 2009, Cygnus Publisher, Kolkata, 104-120. ISBN 978-81-907741-4-7
65. M.M. Ghangrekar (2009). Microbial Fuel Cell: A technology for wastewater treatment and renewable energy. Bioenergy Symposium Series at IIT Kharagpur, Vol. 1, 2009, Cygnus Publisher, Kolkata, 49-60. ISBN 978-81-907741-4-7
66. M.M. Ghangrekar (2009). Bioenergy from organic wastes. Bioenergy Symposium Series at IIT Kharagpur, Vol. 1, 2009, Cygnus Publisher, Kolkata, 1-14. ISBN 978-81-907741-4-7
67. Makarand M. Ghangrekar and Pilli Sridhar (2008). Performance evaluation of membrane and membrane-less microbial fuel cell. New Horizons in Biotechnology. Ed. Prof. Ashok Pandey, Asiatech Publishers, Inc. New Delhi, co-publication with Springer, Chapter 18, 268-291.
68. Puspendu Bhunia and M.M. Ghangrekar (2006). Effects of cationic polymer on biomass granulation in UASB reactors treating low strength wastewater, Young Researchers 2006, Ed. By Richard Stuetz and Lim Teik-Thye, IWA publishing 143-150.
69. Ghangrekar, M.M., Joshi, S.G., and Asolekar, S.R. (1999). Upflow Anaerobic Sludge Blanket (UASB) Process: low cost biological wastewater treatment. An article in the book *Advances In Wastewater Treatment Technologies*, Ed. P.K. Goel, Technoscience Publications, Jaipur.

ARTICLES IN MAGZINE/ WEBPAGE : 06

1. M. Behera, M.M. Ghangrekar (June 2011). Energy Recovery Wastewater Treatment Processes. Power Genxt, e-journal Vol-1, by ENGINEERS' WELFARE FORUM, WBPDC, Kolkata, page 10-22. (www.wbpdclew.org/e-journal.pdf)
2. Manaswini Behara and M.M. Ghangrekar (February 2009). Green energy technologies: The need to fulfil future energy demand and save planet. Special issue on Green Technology, Nehru Museum of Science & Technology, IIT Kharagpur.
3. Low energy treatment from fuel cells without membranes. Water21, December 2007, Page 64, a magazine published by International Water Association, under the theme new research and development.
4. Ghangrekar M.M. (2007). Knowledge base system for design and operation of UASB reactor. A article published in the newsletter of International Water Association, Water and wastewater treatment specialist group, November, 2007.
5. Ghangrekar M.M. (2007). Sewage reuse for aquaculture after treatment in oxidation and duckweed pond. Techwatch Lanka: Advancements In Aquaculture Technology, Sri Lanka, Vol. 7 (1), August 2007, ISSN 1391-7897, (<http://www.nsf.ac.lk/adbmst/twc/newsletter>),
6. Ghangrekar M.M. (2005). Design of Upflow Anaerobic Sludge Blanket reactor. May 2005. Ask Tom Article in www.waterandwastewater.com.

Papers Reviewed for 130 International Journals: Total 560 manuscripts

Research papers reviewed for the International Journals:

1. Water Science and Technology,
2. Waste Management and Research,
3. Journal of Hazardous Material,

4. Water Research,
5. Jr. of Environmental Engineering, ASCE,
6. Bioresource Technology,
7. Applied Biochemistry and Biotechnology,
8. Chinese Journal of Chemical Engineering,
9. International Journal of Environment and Waste Management
10. Applied Microbiology and Biotechnology
11. Microbial Ecology journal (Springer)
12. The Environmentalist, (Springer)
13. International Journal of Hydrogen Energy
14. Aquaculture
15. Biotechnology Progress
16. Jr. of Indian Water Works Association
17. Environmental Technology
18. Resources, Conservation & Recycling
19. Current Science
20. Bioprocess and Biosystems Engineering
21. Environmental Science & Technology
22. Biochemical Engineering Journal
23. Chemical Papers, Czech Republic
24. Energy & Fuels
25. Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management, ASCE Publication.
26. Journal of Applied Microbiology
27. Journal of Industrial Microbiology and Biotechnology
28. Bioelectrochemistry,
29. Journal of Biological Research'
30. Biofouling
31. Renewable Energy - an International Journal
32. International Journal of Chemical Reactor Engineering
33. Journal of Soils and Sediments
34. Journal of Ecology and Natural Environment (JENE)
35. International Journal of Environmental Science and Technology
36. Chemosphere
37. Journal of Renewable and Sustainable Energy
38. Applied Energy
39. Journal of Basic Microbiology
40. Journal of Environmental Science and Engineering,
41. Journal of Power Sources,
42. International Journal of Global Warming, Inderscience publication.
43. Journal of Scientific and Industrial Research.
44. Environmental Progress and Sustainable Energy
45. Separation Science and Technology, Taylor and Francis
46. BMC Biotechnology
47. Environmental Engineering and Management Journal
48. Journal of King Saud University (Science), Elsevier Journal
49. Fuel
50. Journal of Biometrics and its Applications
51. Chemical Engineering Journal
52. Journal of Microbial & Biochemical Technology
53. Process Biochemistry

54. Journal of the Taiwan Institute of Chemical Engineers
55. Chemical Engineering Research and Design
56. Journal of Water Process Engineering
57. Sadhana - Academy Proceedings in Engineering Science
58. International Biodeterioration & Biodegradation
59. Separation and Purification Technology
60. Journal of Renewable Energy
61. Journal of Environmental Chemical Engineering
62. Scientific Reports
63. Journal of Nanomaterials
64. Journal of the Air & Waste Management Association
65. PLOS ONE
66. Desalination and Water Treatment
67. The Electrochemical Society Journals
68. Journal of Biological Engineering
69. Frontiers in Energy
70. Polymers for Advanced Technologies.
71. RSC advances
72. Materials Science and Engineering B
73. Journal of Bioscience and Bioengineering
74. Archaea, Hindawi publisher
75. Water and Environment Journal
76. International Journal of Chemical Engineering, Hindawi Publication
77. Journal of Electroanalytical Chemistry
78. International Journal of Energy Research
79. Applied Surface Science
80. Engineering in Life Sciences
81. Energy
82. Journal of Alloys and Compounds
83. Algal Research
84. Microbial Biotechnology
85. Biosensors and Bioelectronics
86. Journal of Chemistry
87. IONICS
88. Journal of Chemical Technology & Biotechnology
89. Hydrometallurgy
90. Journal of Cleaner Production
91. Journal of Hazardous, Toxic, and Radioactive Waste
92. International Journal of Technology (IJTech)
93. Journal of Cleaner Production
94. Environment International
95. Bioresource Technology Reports
96. Environmental Sustainability
97. Biotechnology Advances
98. Environmental Chemistry Letters.
99. Environmental Technology & Innovation,
100. Indian Journal Of Experimental Biology.
101. SN Applied Sciences, Springer Nature
102. ChemCatChem, Wiley-VCH
103. Frontiers in Energy Research
104. Renewable and Sustainable Energy: An International Journal (RSEJ)

105. Reviews in Biotechnology and Biochemistry
106. Biotechnology reports
107. Biotechnology for Biofuels
108. Bioresources and Bioprocessing
109. npj Biofilms and Microbiomes
110. Progress in Energy and Combustion Science
111. Chemical and Biochemical Engineering Quarterly
112. Alexandria Engineering Journal
113. Biomass Conversion and Biorefinery
114. International Journal of Infectious Diseases
115. Periodica Polytechnica Chemical Engineering
116. Journal of Applied Electrochemistry
117. Materials Chemistry and Physics
118. Energy Reports
119. Environmental Pollution
120. 3Biotech, Springer Journals
121. Enzyme and Microbial Technology
122. Sustainable Energy Technologies and Assessments
123. Environmental Research
124. Current Research in Microbial Sciences
125. Environmental Science and Pollution Research
126. Frontiers in Chemical Engineering
127. Journal of the Indian Chemical Society
128. Water Environment Research
129. Journal of Industrial and Engineering Chemistry
130. Biocatalysis and Agricultural Biotechnology.

Book Reviewed

- Pearson Education, South Asia;
- Taylor & Francis publishing group, UK;
- Tata McGraw-Hill Education;
- Elsevier;
- Springer

Proposal Reviewed

- Reviewing proposals for DBT, BIRAC, DST, IMPRINT, SPARC, Dutch Research Council (NWO)
- August 2015. Reviewed two proposals under new RSOP for Central Power and Research Institute, Government of India undertaking.
- June 2015. Reviewed proposal for National Science centre (Narodowe Centrum Nauki) seated in Krakow, ul. Krolewska 57, 30-081, Krakow, Poland
- May 2015. Reviewed a proposal for BIRAC.
- September 2014. Sustainable energy, Microbial Fuel Cell, Waste water treatment, Electricity generation. By Md. Abdullah-Al-Mamun. Sultan Qaboos University, Oman.
- August 2014. Waste2Food - Recovery of resources from waste sludge, organic biological waste and manure as high-efficiency fertilizers for food production. By P. Vanrolleghem. Natural Sciences and Engineering Research Council of Canada.
- June 2014. Solid phase purification of mixed salts item RO rejects at leather industries-process development (No. DST/TSG/ROR/2013/99). DST, India

- June 2014. Characterization of mixed salts from RO rejects at leather industries (No. DST/TSG/ROR/2013/98). DST, India
- March 2014. Reviewed 12 project proposals submitted to BIRAC by different researchers.
- January 2013. Advancing a Novel Sludge-bed Anaerobic Membrane Bioreactor Treatment of Industrial Wastewaters: Effluent Post-treatment and Recovery of Valuable Products Natural Sciences and Engineering Research Council of Canada.
- March 2013. Project Title “influence of chlorine disinfectant and natural organic matter gradients on disinfection by-product Formation in drinking water of some Indian cities”, SERC, DST, India
- August 2013. Semi-centralized, Energy intelligent Wastewater Treatment and Reuse. DST India; 2+2 mode of Partnership.
- January 2012. Advances in Municipal Wastewater Treatment. Natural Sciences and Engineering Research Council of Canada.
- August 2012. Analysis of metabolically active bacterial species in anaerobic digesters, CSIR, HRDG, New Delhi.
- December 2012. Development of 1-D Transient Conservative pollutant transport model for meso-scale application by Bhabagrahi Sahoo, ISIRD, , IIT Kharagpur.
- September 2011. Production of bioelectricity from sludge and domestic wastewater using microbial fuel cell, sponsored by MoEF, New Delhi.
- July 2010. Modified electrode materials for microbial fuel cell, DST, India

Research Guidance: Ph.D. completed: 23; Ongoing: 17

Ph.D.

No.	Name	Title	Year, University	Supervisor/ Co-supervisor
1	D.G. Regulwar	Multi objective multi-reservoir optimization in fuzzy environment for river sub-basin development and management	Awarded on 11-12-2006; N.I.T. Warangal	Supervisor: Dr. P. Anand Raj Co-supervisor: Dr. M.M. Ghangrekar
2	Mr. J.J. Sakle	Evaluation of performance of UASB process at various loading rates for effluent treatment	Awarded on 16 December 2008; Dr. S.R.T. Marathwada University	Supervisor: Dr. Shivanikar S.V. Co-supervisor: Dr. M.M. Ghangrekar
3	Mr. Puspendu Bhunia	Studies on sludge granulation in UASB reactor treating low strength wastewater	I.I.T. Kharagpur, Awarded June 2008	Supervisor: Dr. M.M. Ghangrekar
4	Ms. Manaswini Behra	Performance of microbial fuel cells under different operating conditions and employing earthenware as a separator	Awarded April 2012 Kharagpur	Supervisor: Dr. M.M. Ghangrekar
5	Sudhir V. Ambekar	Evaluation of performance of microbial fuel cell for organic wastewater treatment and electricity generation	April 2014, VNIT, Nagpur	Supervisor: Prof. V.A. Mhaisalkar Prof. M.M. Ghangrekar
6	Ms. Sajana T.K.	Sediment microbial fuel cell for remediation of aquaculture wastewater and energy recovery	Awarded June 2014, IIT Kharagpur	Joint Supervision: Dr. Arunabha Mitra Dr. M.M. Ghangrekar
7	Girija Mishra	Phytoremediation of wastewater and recovery of biomass as feedstock for bioethanol generation	Awarded April 2015, IIT Kharagpur	Joint Supervision: Dr. Arunabha Mitra Dr. M.M. Ghangrekar
8	Shomya Pandit	Improvement on the performance of microbial fuel cell by	Awarded, November 2014, IIT Kharagpur	Joint Supervision: Dr. D. Das

		optimizing different operational parameters		Dr. M.M. Ghangrekar
9	Anil Ghadge (11CE91Q04)	Scaling-up of microbial fuel cells for wastewater treatment and development of ceramic separator using mineral cation exchanger	Awarded May 2016, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
10	Harapriya Pradhan (11CE91R07)	Organic matter and dissolved solids removal from wastewater in microbial desalination cell	Awarded January 2017, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
11	Pritha Chatterjee (13CE91P01)	Decentralized wastewater treatment plants as a sustainable impact mitigation system	Awarded March 2017, IIT Kharagpur (October 2016)	Supervisor: Dr. M.M. Ghangrekar Prof. Surampalli Rao
12	Sreemoyee Ghosh Ray (12AT91P02)	Development of two-stage fungal and bio-electrochemical processes for enhancing organic matter removal from distillery wastewater to meet discharge norms	Awarded September 2017, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
13	Deepak Jadhav (12WM92R01)	Performance Enhancement of Microbial Fuel Cells through Electrode Modifications along with Development of Bioelectric Toilet	IIT Kharagpur, Awarded, July 2017	Supervisor: Dr. M.M. Ghangrekar
14	Rajesh P.P. (13AT91P01)	Improving performance of microbial fuel cell by enhancing the bio-catalytic activity of anodic inoculum and electrodes	Awarded, November 2017 IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
15	Iti Sharma (12AT92P06)	Rapid electrogenic activity determination of anodic inoculum and customized microbial fuel cells treating selected household organic waste	Awarded, July 2018, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
16	Knawang Chhunji Sherpa ()	Biotransformation of renewable lignocellulosic (Sugarcane Tops) for 2G bioethanol production: A sustainable eco-friendly process development	Awarded, January 2019	Supervisor: Dr. R. Banerjee Dr. M.M. Ghangrekar
17	Bikash Ranjan Tiwari (13CE90J01)	Improved treatment of high strength distillery wastewater assisted with bio-electrochemical system for enhancing energy recovery	Awarded, November 2018, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
18	Md. Tabish Noori (13AG90J02)	Low-cost cathode catalyst and biofouling control in microbial fuel cells to enhance electricity recovery for onsite use while treating wastewater	Awarded, June 2018, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar Prof. C.K. Mukharjee
19	Neethu B. (15CE92P01)	Development of low cost microbial carbon-capture cell for simultaneous wastewater treatment, electricity generation and algal production	Awarded, January 2020, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
20	Gourav Dhar Bhowmik (16AG90J10)	Development of bio-electrochemical system assisted advanced hybrid treatment systems for aquacultural wastewater	Awarded October 2020	Supervisor: Dr. M.M. Ghangrekar Dr. R. Banerjee
21	Indrasis Das (17CE90J01)	Bioelectric toilet: for onsite treatment of blackwater to facilitate reuse of treated water	Awarded November 2020, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar

		and electricity generation for onsite applications		
22	Indrajit Chakraborty (17CE91R05)	Reinventing tertiary treatment of sewage using biochar with a focus on removal of complex organic compounds and disinfection to facilitate safe reuse	Awarded, October 2021, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar Dr. B.K. Dubey
23	Sovik Das (17CE90J01)	Microbial electrosynthesis of acetic acid from biogas produced from small-scale anaerobic digester	Awarded, December 2021, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
24	Sathe Shreeniwas Madhav Geeta (18CE92R07)	Advanced secondary and tertiary treatments of municipal wastewater for the removal of surfactants and wastewater sludge valorisation	Thesis submitted August 2022, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar Dr. Brajesh Dubey
25	Dibyoyoti Nath (17EF91P01)	Application of plant metabolites for enhancing microbial electrogenesis and use of cement as low-cost option for fabrication of microbial fuel cell	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
26	Aiswarya Rastogi (18EF91R01)	Microbial water treatment	Ongoing, IIT Kharagpur	Supervisor: Dr. Manoj Tiwari Dr. M.M. Ghangrekar
27	Sandipan Bhowmick (19BE91P02)	Algal Bio-process	Ongoing, IIT Kharagpur	Supervisor: Dr. R. K. Sen Dr. M.M. Ghangrekar
28	Swati Das (19BE91P03)	Algal based wastewater treatment	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
29	Azhan Ahmad (19CE91R02)	Electrocoagulation-electro-oxidation processes	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar Prof. Surampalli Rao
30	Monali Priyadarshini (19CE91R02)	Advanced oxidation processes	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
31	Santosh Kumar (19BE92P02)	Algal bioprocess	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
32	Mario Vino Lincy G (19EF92R01)		Ongoing, IIT Kharagpur	Supervisor: Dr. Shamik Chowdhury Dr. M.M. Ghangrekar
33	Arun Kumar T (20EF91S01)	Tertiary Wastewater treatments	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
34	Mahendra Mulkalwar (20EF92W01)	Evaluation of tertiary treatment process and economics of sewage treatment plant	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
35	Shradhha Yadav (20EF92R03)		Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
36	Akash Tripathy (20CE91R01)		Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
37	Rishabh Raj (20EF91R05)		Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
38	Jadhav Gorakhanath Sadashiv (21EF91R02)	Microbial Fuel Cells	Ongoing, IIT Kharagpur	Supervisor: Dr. M.M. Ghangrekar
39	Thulluru Lakshmi Pathi (21EF91R06)			

40	Doki Manmadha Manikanta (21CE91P01)			
41	Anil (21CE91R04)			

M.Tech. Project guidance: Total 54

Completed Project Details:

No.	Name	Title	Year	Supervisor/ Co-supervisor
1	Mr. Nand Kishor	Treatment and reuse of sewage for aquaculture	2005	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
2	Mr. V. B. Shinde	Treatment of wastewater and production of electricity using microbial fuel cell	2006	Supervisor: Dr. M.M. Ghangrekar
3	Mr. P. Chandra Kiran	Sustainable onsite domestic sewage treatment using anaerobic baffled reactor	2006	Supervisor: Dr. M.M. Ghangrekar
4	Mr. Shridhar	Performance evaluation of MFC for wastewater treatment and electricity generation under different operating conditions	2007	Supervisor: Dr. M.M. Ghangrekar
5	Mr. Dipti Prakash Mahapatra	Sewage fed aquaculture after treatment by using anaerobic reactor and polishing ponds	2007	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
6	Jadhav Gorakhanath S.	Performance evaluation of microbial fuel cell subjected to variation in operating parameters and design alteration	2008	Supervisor: Dr. M.M. Ghangrekar
7	A. Siva Ramanjula Reddy	Methane production from kitchen waste using UASB reactor	2008	Supervisor: Dr. M.M. Ghangrekar
8	S.S.R. Murthy	Effect of operating temperature and sulfate concentration on the performance of microbial fuel cell	2008	Supervisor: Dr. M.M. Ghangrekar
9	Biju Abraham	Treatment of organic waste by UASB and algal and duckweed pond and reuse for aquaculture	2008	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
10	More T.T.	Effect of surface area of electrode and sonication pretreatment of inoculum on performance of microbial fuel cell	2009	Supervisor: Dr. M.M. Ghangrekar
11	Deepak Meshram	Bioenergy recovery during sewage treatment and reusing treated wastewater for aquaculture	2009	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
12	Satavase Krishnaraj S.	Biotreatment of wastewater for recovery of bioethanol and use of treated water in pisciculture	2010	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
13	Lalita Mohan Mohapatra	Application of microbial fuel cell for wastewater treatment and feasibility of fish culture in treatment system	2010	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
14	Bhavya P.R.	A Cost Effective MFC using Earthen Pot as A Proton Exchange Membrane and Evaluating the Performance Using Different Substrates, pH and Electrodes	2010	Supervisor: Dr. M.M. Ghangrekar
15	Shivaram Satyam	Scale-up studies on microbial fuel cell	2011	Supervisor: Dr. M.M. Ghangrekar
16	Deepak Jadhav	Energy recovery from fresh water sediments using sediment microbial fuel cell	2012	Prof. Uwe Schroder (Germany) Prof. M.M. Ghangrekar
17	Mypati Sreemannarayana	Performance evaluation of composite method for wastewater treatment and electricity generation combining wetland treatment technology with sediment microbial fuel cell	2013	Supervisor: Dr. M.M. Ghangrekar
18	Pritha Chatterjee	Performance of air-breathing microbial fuel cell under different operating conditions using earthenware separator	2013	Supervisor: Dr. M.M. Ghangrekar
19	Subrata Mondal	Bioelectricity generation from kitchen waste using low cost microbial fuel cell	2013	Supervisor: Dr. M.M. Ghangrekar

20	Bikash Tiwari	Performance comparison of microbial fuel cell with different pretreatments for sludge inoculum	2013	Supervisor: Dr. M.M. Ghangrekar
21	Md. Tabish Noori	Energy recovery during fish processing waste water treatment using microbial fuel cell	2013	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
22	Piya Chakraborty	Wastewater Treatment by Hydroponic System	2013	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
23	Swagatam Das	Performance evaluation of a septic tank incorporated with microbial fuel cell	2013	Supervisor: Dr. M.M. Ghangrekar
24	K.Thanmayi	Comparative assessment of different pretreatment methods of sludge inoculum on MFC performance	2013	Supervisor: Dr. M.M. Ghangrekar
25	Ranjita Bhande	Kinetics of degradation of cellulose and its influence on bacterial growth in sediment microbial fuel cell	2014	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
26	Simpal Kumari	Comparative study on electricity generation and waste treatment using cellulose as substrate in microbial fuel cell	2014	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
27	Suma Raj	Development of low cost microbial fuel cell as organic matter sensor and application of polysiloxane derived materials as anode	2014	Supervisor: Dr. M.M. Ghangrekar
28	Anamik Yadav	Performance assessment of constructed wetland-microbial fuel cell for electricity production and wastewater treatment	2014	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
29	Niralee Verma	Performance of novel air cathode microbial fuel cell using pvc battery separator as a membrane	2015	Supervisor: Dr. M.M. Ghangrekar
30	Litan Berman	Effect of sulphur content in sediment on the performance of SMFC	2015	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
31	Ritu Prem	Application of Electro-Coagulation for in-situ Remediation of Aquaculture Water	2015	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
32	Gourav Dhar Bhowmik	Performance evaluation of a two-stage wastewater treatment process combining microbial fuel cell and aerobic membrane bioreactor	2016	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
33	Pankaj Kumar Gautam	Study of different operating parameters on performance of low cost Clayware microbial carbon capture cell	2016	Supervisor: Dr. M.M. Ghangrekar
34	Pramod Kumar	Application of MEC for electrochemical reduction of Carbon dioxide to Formate	2016	Supervisor: Dr. M.M. Ghangrekar
35	Diplina Paul	Enhancing the Performance of Microbial Fuel Cell using Zeolite Mediated Anode and Ag-Pt Nanoalloy Catalyzed Cathode	2016	Supervisor: Dr.Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
36	Pratik Kumar	Improving cathode performance using biotic and abiotic cathodes and controlling cathode fouling using anti scaling agents	2016	Supervisor: Dr. M.M. Ghangrekar
37	Sovik Das	Resource Recovery from wastewater using bioelectrochemical system	2017	Supervisor: Dr. M.M. Ghangrekar
38	Sudip Dutta	Scaling up and performance assessment of sediment microbial fuel cell.	2017	Supervisor: Dr. Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
39	Anusha Ganta	Application of low cost catalysts in bioelectrochemical systems to enhance the performance	2018	Supervisor: Dr. M.M. Ghangrekar
40	Niranjit Kuman	Upflow hydroponic constructed wetland microbial fuel cell with low cost clayware	2018	Supervisor: Dr. Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar

		separator for wastewater treatment and bioelectricity generation		
41	Koushik Adhikari	Improving treatment efficacy of microbial fuel cell using novel cathode catalysts and use of hybrid membrane for facilitating nitrogen removal from fish processing wastewater	2018	Supervisor: Dr. Arunabha Mitra Co-supervisor: Dr. M.M. Ghangrekar
42	Kailash Patel	Wastewater treatment and simultaneous recovery of value added products using up-flow anaerobic sludge blanket and microbial fuel cell	2018	Supervisor: Dr. M.M. Ghangrekar
43	Harish Kumar Verma	Improved wastewater treatment efficacy as well as bioenergy recovery of Microbial Fuel Cell by using conductive ink printed Co_3O_4 and Fe_3O_4 as cathode catalyst	2018	Supervisor: Dr. M.M. Ghangrekar
44	Ashish Mishra	In-situ production of hydrogen peroxide for disinfection using suitable cathode catalysts in microbial fuel cell	2019	Supervisor: Dr. M.M. Ghangrekar
45	Ashwini Viswanath	Exploring novel cathode catalyst selenium and green synthesized silver nanoparticles for improving efficiency of microbial fuel cell treating fish market wastewater	2019	Supervisor: Dr. M.M. Ghangrekar
46	Viswajeet Tholia	Effect of anodic inoculum pretreatment using chloroform and lipid extracted algae on the performance of microbial carbon capture cell	2019	Supervisor: Dr. M.M. Ghangrekar
47	Ashutosh Gupta	Optimal cathodic imposed potential and appropriate catalyst for the synthesis of hydrogen peroxide in microbial electrolysis cell	2020	Supervisor: Dr. M.M. Ghangrekar
48	Rajneesh Verma	Application of novel N/S and N/P co-doped graphene aerogel as a superior cathode catalyst in microbial fuel cell	2020	Supervisor: Dr. M.M. Ghangrekar
49	Rohan Dixit	Relationship between cathodic and anodic resistances of cylindrical clayware MFCs with electrode surface area and substrate loading	2020	Supervisor: Dr. M.M. Ghangrekar
50	Anil Dhanda	Use of graphitic carbon nitride as a cathode catalyst in Microbial fuel cell and Coulombic efficiency required to make microbial fuel cell beneficial to anaerobic treatment	2021	Supervisor: Dr. M.M. Ghangrekar
51	Pawan Kumar Singh	Empowering secondary treatment of wastewater through design automation and quasi-mechanisation of sequencing batch reactor	2021	Supervisor: Dr. M.M. Ghangrekar
52	Hema Jha			
53	Chandrasekhar			
54				

Ph. D. Thesis Examination: 52

Participation in Department and Institute Activities at I.I.T., Kharagpur

- Constructing 1.35 MLD Sewage treatment plant for hostels and another 300 m³/day sewage treatment plant at IIT Kharagpur to produce potable quality treated water. 2020
- Head, School of Environmental Science and Engineering, March 2017
- Head, PK Sinha Centre for Bioenergy and Renewables, April 2019
- Professor In Charge, Centre for Re-water Research
- Constructed 400 m³/day capacity UASB reactor based sewage treatment facility at IIT Kharagpur in 2014.
- Chairman, Spring Fest 2010, 2011, 2012, 2013.
- Co-chairman Spring Fest 2007, 2009.
- Participated in the conduct of JEE 2004, 2005 and GATE 2005, 2006, 2007, 2011, 2012 examination, JMET 2008, 2010, 2011 and JEE counseling for the year 2005 and 2006.
- Participated in other institute activities such as, member anti-ragging committee 2005, 2009, 2013 member discipline committee of Spring Fest, 2005 and 2006.
- Laboratory In-charge, Environmental Engineering Laboratory, Dept. of Civil Engg., I.I.T., Kharagpur, July 2004 to June 2007.
- Section In-charge, Environmental Engineering and Management Section July 2007-June 2010.
- Faculty Adviser, B.Tech., Civil Engineering students, 2005 batch.
- Assistant Warden, M.S. Hall, I.I.T., Kharagpur, August 2005-September 07.

(Prof. M.M. Ghangrekar)

Some Glimpses of the media coverage

<https://educlasses.co.in/interview-makarand-ghangrekar-professor-environmental-engineering-iit-kharagpur.html>

<https://thelogicalindian.com/exclusive/bio-electric-toilet/>

<https://www.outlookindia.com/newscroll/iitkharagpur-develops-selfsustainable-biotoilet/1281587>

<https://timesofindia.indiatimes.com/city/kolkata/iit-kgp-builds-bio-toilet-wins-pms-swachh-bharat-award/articleshow/63572387.cms>

<https://citytoday.news/iit-kharagpur-develops-self-sustainable-bio-toilet/>

https://nmcg.nic.in/writereaddata/fileupload/16_31_003_EQP_S&R_02.pdf

<https://www.theweek.in/news/sci-tech/2018/08/18/IIT-Kharagpur-to-set-up-centre-to-replenish-and-rejuvenate-water-resources.html>

<https://www.newsbytesapp.com/news/india/iit-kharagpur-to-set-up-re-water-research-center/story>

https://ngobox.org/full-news_IIT-Kharagpur-Develops-Self-Sustainable-Bio-Toilet_22066

<https://swachhindia.ndtv.com/water-conservation-iit-kharagpur-to-steer-a-european-union-funded-project-for-treatment-reuse-of-wastewater-37236/>

https://www.business-standard.com/article/pti-stories/iit-kharagpur-to-set-up-re-water-research-center-118081800261_1.html

<https://indianexpress.com/article/education/iit-kharagpur-to-lead-project-to-tap-waste-water-treat-it-5913816/>

<http://www.millenniumpost.in/kolkata/heavy-rain-batters-bengal-leaves-arterial-roads-waterlogged-443679?infinitemscroll=1>

<https://twitter.com/iitkgp/status/978588844420485121>