Abhilasha Singh Mathuriya
Assistant Professor

M.Tech, PhD

Abhilasha Singh is Assistant Professor in Department of Biotechnology in Anand Engineering College (Sharda Group of Institutions) Agra, India. She earned her M. Tech. in Biochemical Engineering from H.B.T.I. Kanpur in 2003, and submitted Ph.D. (Engg.) in Biotechnology from GB Tech University in 2011. She remained a brilliant scholar, and has held top positions in the college and university merit list. She has written many books in the area of biotechnology. She is reviewer of various international journals and member of many technical societies. Her research papers have got position in journals of repute. She has five patents in her credentials. Her area of interest is Microbial Fuel Cells.

Area of Interest

Bioenergy

Experience

Teaching:

- 16 years of research and teaching experience.

Skill sets & Expertise

Fermentation, Environmental Biotechnology, Bioenergy.

Publications

Research Publications

- Mathuriya, A.S. (2016) *Evaluation of novel microbial fuel cell design for treatment of different wastewaters simultaneously*. Journal of Environmental Science. V. 42, 105-111. ***(Impact factor 2.208).***

- Mathuriya, A.S. (2015) *Magnetotactic bacteria-nano drivers of the future.* Critical Reviews in Biotechnology. V. 13, 1-15. DOI: 10.3109/07388551.2015.1046810. ***(Impact Factor 7.510)***.
- Mathuriya, A.S., Yadav, K. & Kaushik, B.D. (2015) *Magnetotactic bacteria-performances and challenge*. Geomicrobiology, V. 32, No. 9, 780-788. DOI: 10.1080/01490451.2014.986694 ***(Impact factor 1.89).***
- Mathuriya, A.S. (2015) *Magnetotactic bacteria for cancer therapy.* Biotechnology Letters. V. 37, No. 3, 491-498. DOI: 10.1007/s10529-014-1728-6. ***(Impact Factor 1.639).***
- Mathuriya, A.S. (2015) "*A miniature microbial fuel cell with scrap materials- a homemade electricity source?*". Energy & Environment. V 26, No. 4, 659-664. ***(Impact Factor 0.516)***.
- Mathuriya, A.S., Bajpai, S.S. & Giri, S. (2015) "*Epipremnum aureum (Money Plant) as cathode candidate in Microbial Fuel Cell Treating Domestic Wastewater"*. Journal of Biochemical Technology. V. 06, No.3, 1025-1029. ***(Impact Factor 0.9443)*** (***Accepted***).
- Mathuriya, A.S. (2015) *Utilization of Saccharomyces cerevisae for enhance electricity generation during domestic wastewaster treatment via microbial fuel cell technology*. Research & Reviews: Journal of Biotechnology V. 05, No.1, 45-50.
- Mathuriya, A.S. & Yakhmi, J.V. (2014) *Microbial fuel cells- for generation of electrical power and beyond.* Critical Reviews in Microbiology. V. 42, No. 1, pp. 1-17. DOI: 10.3109/1040841X.2014.905513. ***(Impact Factor 8.192).***
- Mathuriya, A.S. (2014) *Eco-affectionate face of microbial fuel cells*. Critical Reviews in Environmental Science and Technology. V. 44, No. 2, pp. 97-153, DOI: 10. 1080/10643389.2012.710445. ***(Impact Factor 4.00).***
- Mathuriya, A.S. & Yakhmi, J.V. (2014) *Microbial fuel cells to recover heavy metals*. Environmental Chemistry Letters V. 12. Pp. 483-494, DOI: 10.1007/s10311-014-0474-2. ***(Impact factor: 2.918).***
- Mathuriya, A.S. (2014) *Enhanced tannery wastewater treatment and simultaneous electricity generation in microbial fuel cell by bacterial strains isolated from tannery waste.* Environmental Engineering and Management Journal. V. 13, No. 12, 2945-2954. ***(Impact Factor 1.285).***
- Mathuriya, A.S. (2013) *Inoculum selection to enhance performance of a microbial fuel cell for electricity generation during wastewater treatment.* Environment Technology. V.34, No.13-14, pp. 1957-64. DOI:10.1080/09593330.2013.808674. ***(Impact Factor 1.760)***

- Mathuriya, A.S. & Sharma, V.N. (2010). *Bioelectricity production by Saccharomyces cerevisae from sugar industry waste using microbial fuel cell technology.* Journal of Pure and Applied Microbiology. V. 4, No. 1, pp. 31-40. ***(Impact Factor 0.73; NAAS Rating 6.04)***
- Mathuriya, A.S. & Sharma, V.N. (2010). *Bioelectricity production from various waste waters through microbial fuel cell technology.* Journal of Biochemical Technology, V. 2, No. 1, pp. 133-137 ***(Impact factor: 0.9443; 5th most cited article).***
- Mathuriya, A.S. & Sharma, V.N. (2010). *Electricity generation by Saccharomyces cerevisae and Clostridium acetobutylicum via microbial fuel cell technology: A comparative study.* Advances in Biological Research. V. 4, No. 4, pp. 217-223. ***(PubMed Cited)***
- Mathuriya, A.S. & Sharma, V.N. (2010). *Electricity generation from potato waste water in a microbial fuel cell*. International Journal of Agriculture, Environment and Biotechnology, V.3, No. 3, pp 335-340. ***(NAAS Rating: 4.10)***
- Mathuriya, A.S. & Sharma, V.N. (2010). *Treatment of brewery wastewater and production of electricity through microbial fuel cell technology.* International Journal of Biotechnology and Biochemistry, V.6, No.10, pp. 72-80.
- Mathuriya, A.S. & Sharma, V.N. (2009). *Bioelectricity production from paper industry waste using a microbial fuel cell by Clostridium species.* Journal of Biochemical Technology, V.1, No.2, pp. 49-52. ***(Impact factor: 0.9443; 1st most cited article).***
- Mathuriya, A.S (2006) *Information technology and its applications in biotechnology.* Popular Plastics & Packagings, Vol.LI, 12, pp. 81-85.
- Mathuriya, A.S (2003) *Some policies and standards for biodegradable plastics"* Popular Plastics & Packagings , Vol.XLVIII , 7, pp.69-74.

Research Project

- A research project (SGI/AEC/BIOTECH/2k13-14/001) entitled "*Isolation of magnetotactic bacteria for synthesis of magnetosomes.*" Sponsored by SGI Research & Technology Development Centre, Agra (2013-15).

Patents

- Mathuriya AS. "**New Microbial Fuel Cell Design**" (No.1744/DEL/2012A) Intellectual Property Journal India; issue no. 5/2014; page 2436, dated: 31.01.2014.

- Mathuriya AS. ‘’**A trickling bio-electrochemical filter for waste reduction and electricity generation’’** (No. 201611008125) Intellectual Property Journal India; issue no. 20/2016; page 18668, dated: 13.05.2016.
- Mathuriya AS. ‘’**Bioelectrochemical System for Production of Bio-gas, Bio-electricity and Bio-fertilizer simultaneously’’** (No: 201611013816), Intellectual Property Journal India; issue no. 20/2016; page 18658, dated: 13.05.2016.
- Mathuriya AS. ‘’**Novel Microbial Auto Flow Fuel Cell (MAFFC) Architecture For Large Scale Energy Efficient Wastewater Treatment’’** (No: 201611016850 A) Intellectual Property Journal India; issue no. 23/2016; page 23155, dated: 03.06.2016.
- Mathuriya AS. ‘’**Wastewater Treatment and Disinfection in Multi Criteria Microbial Fuel Cell’’** (No: 201611040441) dated: 26.11.2016.

Books

- Mathuriya, A.S., Yakhmi, J.V. **‘’Polyhydroxyalkanoates: Biodegradable Plastics and Their Applications’’** In: **Handbook of Ecomaterials**. Eds., Kharisov B., Martínez L.M.T., Kharissova O.V., Springer-Nature (Under Preparation).
- Mathuriya A.S. (2012) **"Microbial Fuel Cells: Electricity Generation from Waste Water"**, LAMBERT Academic Publishing, Germany, ISBN: 978-3-659-31119-2.
- Mathuriya A.S. (2009) “**Industrial Biotechnology**” Ane Books, India Ltd., ISBN: 818-0-5214-19.
- Abhilasha Singh (2006) “**Enzyme Assays**”: Regency Publications New Delhi, ISBN: 818-9-2334-91.
- Jangwan J.S., Mathuriya A.S. (2008) ‘’**Industrial Chemistry’’**. Vol. 4. Pragati Prakashan Meerut. ISBN: 6612803215.
- Abhilasha Singh (2005) **“Environmental Chemistry”** Epsilon Publication House Pvt Ltd. Kanpur.

Other Achievements

Awards and Honours-

- **India International Science Festival, New Delhi** (by Ministry of Science & Technology, Govt. of India)**-2016**
  Young Scientist Conclave Award (1st Prize) (MAKE IN INDIA)

- **Indian Institute of Technology, Delhi -2012**
  Nanobiotechnology
  Summer Faculty Research Fellowship
  Under Dr A N Bhaskarwar, Head Chemical Engineering

- **Central Electro Chemical Research Institute, Tamilnadu, India 2008**
  Bioelectricity Production in Microbial Fuel Cells
  Summer Faculty Research Fellowship
  Under Dr. AK Shukla, Director CECRI

- **Rotary International Educational Fellowship**
  2001-2003-*During M. Tech.*

Membership of Professional Societies

♦ **Member of Editorial Board-**

- Applied Ecology and Environmental Sciences (J), USA
- International Journal of Environmental Sciences, India

♦ **Program Committee Member-**

- International Conference on Recent Trends in Science, Engineering and Technology (ICRTSET- 2015) February 08, 2015, Chennai, India.
- National seminar on recent advances in agricultural-, biomedical-, and environmental biotechnology, Anand Engineering College Agra May 1-2, 2015.
- National seminar on biotechnological interventions for the benefit of mankind, Anand Engineering College Agra, 2-4 February 2012.

♦ **REVIEWER**

1. Springer

♦ Arabian Journal for Science and Engineering
♦ Journal of Institution of Engineers (India): Series E
♦ Bioprocess and Biosystems Engineering

♦ Environmental Science and Pollution Research

2. Elsevier

♦ Journal of Environmental Management Water Research

3. Academic Journals

♦ African Journal of Biotechnology
♦ African Journal of Microbiology
♦ Journal of Yeast and Fungal Research
♦ African Journal of Biochemistry Research
♦ African Journal of Microbiology Research
♦ Journal of Petroleum Technology and Alternative Fuels
♦ Journal of Bacteriology Research

4. Philippine Journal of Science (PJS)

5. International Research Journals

6. Applied Ecology and Environmental Sciences

♦ Journal of Research in Environmental Science and Toxicology.
♦ International Research Journal of Biotechnology (IRJOB).
♦ International Research Journal of Agricultural Science and Soil Science (Formerly International Research Journal of Agricultural Science).

7. American Journal of Energy Research

♦ ***Program Committee Member:*** International Conference on Recent Trends in Science, Engineering and Technology (ICRTSET- 2015) February 08, 2015, Chennai, India.

Certifications-

- MISSION 10X: Basic and Advance
- FEEL Teacher
- IRDT Kanpur

Social links-

- **Facebook:** *https://www.facebook.com/abhilasha.singh.1297*

Link to personal website/Blog-

- **http://imabhilasha.wix.com/greenpower**