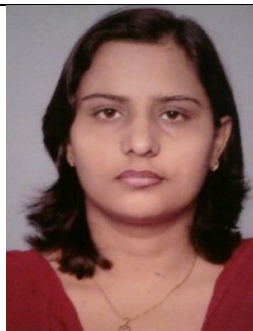


## Curriculum Vitae

Name: <b>Dr. Smita</b> Present Position: Post-doctoral Fellow Centre for Rural Development & Technology Room No. 428D, Block -II, Indian Institute of Technology Delhi, Hauz Khas, New Delhi- 110016 E.mail-ird12001@iitd.ac.in; smita3skumar@gmail.com					
Research area	Research interests include Renewable (Bio) electricity generation; Microbial Fuel Cell Technology (MFC); Bio-electrochemical Waste and Wastewater Treatment; Microalgae; Sustainable bio-energy production; Landfill Leachate treatment; and Bioremediation				
<b>Ph.D. details</b>					
Ph.D. thesis title	“Bio-electrochemical stabilization of Landfill leachate” with Microbial Fuel Cell Technology				
Ph D Guide	Prof. Narsi R. Bishnoi Department of Environmental Science & Engineering, Guru Jambheshwar University of Science & Technology, Hisar, Haryana-125001 E mail: <a href="mailto:nrbishnoi@gmail.com">nrbishnoi@gmail.com</a> ; Phone no. +91-9354312123				
Awards and Fellowships	1. UGC-BSR (JRF and SRF) for meritorious students, April 2011 to April 2016 2. UGC-NET(JRF) (Environmental Science) August 2013 3. ICAR-NET (Environmental Science) February, 2013, 2014 4. SERB-NPDF, Department of Science & Technology, GoI, August 2017				
Professional Recognition	1. The Indian science congress association (L32226)				
<b>Academic/ Research Positions</b>					
SERB-NPDF at CRDT, Indian Institute of Technology Delhi on the topic “Conversion of emerging water pollutants from agrochemical/pesticide industries into green energy by Microbial Fuel Cell technology” from 1 <sup>st</sup> August, 2017 till date.					
<b>Publications</b>					
<b>Total no. of manuscript published: 35</b> Google scholar citation till date: <b>159</b> [with <b>h-index 7</b> and <b>i10-index 4</b> ] <b>Publication in Journals: 28</b> <b>Book chapters and full-length publications in conference proceedings: 7</b>					
S. No	Authors	Title	Name of Journal (IF)	Vol./ Page no	Impact Factor
1.	Smita S Kumar, Vivek Kumar, Ritesh Kumar, Sandeep K Malyan, Arivalagan Pugazhendhi.	Microbial Fuel Cell Technology for Sustainable Bioenergy, Biosensing, Environmental Monitoring, and other Low-Power Devices. Under review Manuscript Number: JFUE-D-19-01085	Fuel VSI: ICAFEE2018 (Atabani) (28th Feb, 2019)		4.901

2.	<b>Smita S Kumar</b> , Pooja Ghosh, Sandeep K Malyan, Jyoti Sharma, Vivek Kumar.	Mechanistic Approaches for Enzyme Level Biodegradation of Organophosphate Pesticide Malathion in the Environment. Under review Manuscript Number: JESHC-2019-0002	Journal of Environmental Science and Health, Part C.		3.667
3.	<b>Smita S Kumar</b> , Vivek Kumar, Sandeep K Malyan, Jyoti Sharma, Thangavel Mathimani, Marshal S. Maskarenj, Prakash C. Ghosh, Arivalagan Pugazhendhi.	Microbial Fuel Cells (MFCs) for bioelectrochemical treatment of waste streams Under revision Manuscript Number: JFUE-D-19-00757	Fuel		(IF 4.901)
4.	<b>Smita S Kumar</b> and Vivek Kumar.	Alkalinity and salinity favors the bioelectricity generation potential of Clostridium, Tetrathio bacter and Desulfovibrio species as anodic biocatalysts. Under revision	Bioelectrochemistry		IF 3.789
5.	<b>Smita S. Kumar</b> , Vivek Kumar, Ritesh Kumar, Sandeep K Malyan, Narsi R. Bishnoi.	Ferrous sulfate as an in-situ anodic coagulant for enhanced bio-electricity generation and COD removal efficiency from Landfill Leachate. Under revision in Energy. Manuscript Number: EGY-D-18-02390R2	Energy		4.968
6.	Sandeep K. Malyan, Arti Bhatia, <b>Smita S. Kumar</b> , Vijaya Rani, Ritu Tomer, Om Kumar, Ramesh Chand Harit, Vinod Kumar, Niveta Jain, Rajeev Kaushik.	Mitigation of yield-scaled greenhouse gas emissions from rice through biological interventions.	Under review in Field crop research. Manuscript number FIELD_2019_81		3.127
7.	Jyoti Sharma, <b>Smita S. Kumar</b> , Narsi R Bishnoi, Arivalagan Pugazhendhi	Screening of and enrichment of high lipid producing microalgal consortia	Journal of Photochemistry & Photobiology, B: Biology	8-12	3.165
8.	Selvam Sathiyavimal, Seerangaraj Vasantharaj, Devraj Bharathi, Mythili	Biogenesis of copper oxide nanoparticles (CuONPs) using <i>Sida acuta</i> and their incorporation over cotton	Journal of Photochemistry &	188; November 2018;	3.165

	Saravanan, Elayaperumal Manikandan, <b>Smita S. Kumar</b> , Arivalagan Pugazhendhi	fabrics to prevent the pathogenicity of Gram negative and Gram-positive bacteria	Photobiology , B: Biology	126-134	
9	<b>Smita S Kumar</b> , Suddhasatwa Basu, Saloni Gupta, Jyoti Sharma, Narsi R. Bishnoi	Bioelectricity generation using sulphate-reducing bacteria as anodic and microalgae as cathodic biocatalysts <a href="https://doi.org/10.1080/17597269.2018.1426161">https://doi.org/10.1080/17597269.2018.1426161</a>	Biofuels-UK /Taylor & Francis	1-6	0.784
10	Jaya Marry Jacob, Chinnannan Karthik, Rijuta Ganesh Saratale, <b>Smita S Kumar</b> , Desika Prabhakar, K. Kadirvelu, Arivalagan Pugazhendhi	Biological approaches to tackle heavy metal pollution: A survey of literature	Journal of Environmental Management	217, 56-70	4.001
11	Jyoti Sharma, <b>Smita S Kumar</b> , Narsi R. Bishnoi, Arivalagan Pugazhendhi	Enhancement of lipid production from algal biomass through various growth parameters	Journal of Molecular Liquids	712-720	4.513
12	Kulvinder Bajwa, Narsi R. Bishnoi, Manju Toor, Saloni Gupta, Pankaj Sharma, Anita Kirrolia, <b>Smita S Kumar</b> , Jyoti Sharma, Silambarasan Tamil Selvan	Isolation, screening, characterization of indigenous oleaginous bacteria: evolution of various carbon and nitrogen sources as substrates for single called oil producing bacteria	Asian journal of biotechnology and bioresource technology	3 (211), 1-12	
13	Arivalagan Pugazhendhi, <b>Smita S Kumar</b> , M. Manikandan, Muthupandian Saravanan	Photocatalytic properties and antimicrobial efficacy of Fe doped CuO nanoparticles against the pathogenic bacteria and fungi	Microbial Pathogenesis/ Elsevier	122; 84-89	2.332
14	Rajashree Sanmuganathan, Davoodbasha Mubarak Ali, Desika Prabakar, Harshiny Muthukumar, Nooruddin Thajuddin, <b>Smita S Kumar</b> , Arivalagan Pugazhendhi	An enhancement of antimicrobial efficacy of biogenic and ceftriaxone-conjugated silver nanoparticles: green approach	Environmental Science and pollution Research	25:10362-10370	2.8
15	<b>Smita S Kumar</b> , and Narsi R. Bishnoi	Biological stabilization of landfill leachate using upflow anaerobic sludge blanket reactor	Annals of Biology	5-9	

16	<b>Smita S Kumar</b> , and Narsi R Bishnoi	Coagulation of landfill leachate by FeCl <sub>3</sub> : process optimization using Box-Behnken design (RSM)	Applied Water Science	1943-1953	Springer /Impact awaited
17	<b>Smita S Kumar</b> , Suddhasatwa Basu, and Narsi R Bishnoi	Effect of cathode environment on bioelectricity generation using a novel consortium in anode side of a microbial fuel cell	Biochemical Engineering Journal	121 (15 May 2017), 17-24	3.226
18	Jyoti Sharma, <b>Smita S Kumar</b> , Pankaj Sharma, Saloni Gupta, Manju, Sandeep K Malyan, Narsi R. Bishnoi	Effect of Different Nitrogen Sources on Growth of Algal Consortia	Annals of Agri Bio Research	150-153	
19	Om Kumar, Arun A David, Rakesh Kumar, Brijesh Yadav, Narender, <b>Smita S Kumar</b> And Sandeep K Malyan	Effect of farmyard manure and zinc amendments on maize crop yield	Progressive Research: An International Journal	12, 1295-1298	
20	Smita S Kumar, Sandeep K Malyan and Narsi R Bishnoi	Performance of buffered ferric chloride as terminal electron acceptor in dual chamber microbial fuel cell	Journal of environmental chemical engineering	1238-1243	Elsevier/ Impact awaited
21	<b>Smita S Kumar</b> , Sandeep K Malyan, Suddhasatwa Basu and Narsi R Bishnoi	Syntrophic association and performance of <i>Clostridium</i> , <i>Desulfovibrio</i> , <i>Aeromonas</i> and <i>Tetrathibactor</i> as anodic biocatalysts for bioelectricity generation in dual chamber microbial fuel cell	Environmental Science and pollution research	24 (19), 16019 - 16030	2.8
22	<b>Smita S Kumar</b> and Narsi R Bishnoi	Treatment of food industry effluent using upflow anaerobic sludge blanket reactor	Biochemical and cellular archives	17 (1), 73-77	
23	Dushyant Kumar, <b>Smita S Kumar</b> , Jagdeesh Kumar, Om Kumar, Shashi Vind Mishra, Rahul Kumar and, Sandeep K Malyan	Xylanases and their industrial applications: A Review	Biochemical and cellular archives	353-360	
24	Manju, Sunita Kumari, Jyoti Sharma, Saloni Gupta, Mukesh Kumar <b>Smita S Kumar</b> , Anil Kumar, Anamika Verma, Shalu, Pankaj	An Assessment of cadmium removal from simulated waste water using leftover biomass of water hyacinth immobilized via <i>Emericella nidulans</i>	Journal of Applied Life Science International JALSI	1-10	

	Sharma Kulvinder Bhajwa, Sohan Lal and Narsi R. Bishnoi				
25	<b>Smita S Kumar</b> , Chanderhash Yadav, Sandeep K Malyan, Manju, Kulvinder Bhajwa and Narsi R Bishnoi	Dose optimization for aluminum and iron-based coagulants viz., aluminum sulphate, ferric chloride and ferrous sulphate for COD removal from landfill leachate at its natural pH	Annals of Agri Bio research	120-123	
26	Kulvinder Bajwa, Silambarasan T, <b>Smita</b> and Narsi R Bishnoi	Effect of glucose supplementation and mixotrophic effects of glycerol and glucose on the production of biomass, lipid yield and different physiological, biochemical attributes of <i>Chlorella pyrenoidosa</i>	Journal of algal biomass utilization	93-103	
27	Sandeep K Malyan, Arti Bhatia, Amit Kumar, Dipak Kumar Gupta, Renu Singh, <b>Smita S Kumar</b> , Ritu Tomar, Om Kumar, N. Jain	Methane production, oxidation and mitigation: A mechanistic understanding and comprehensive evolution of influencing factors	Science of the Total Environment	572 (December), 874-896	4.610
28	<b>Smita S Kumar</b> and Sandeep K Malyan,	Nitrification inhibitors: A perspective tool to mitigate greenhouse gas emission from rice soils	Current world environment	423-428	
29	<b>Smita S Kumar</b> , S. K. Malyan, A. Kumar and Narsi R Bishnoi	Optimization of Fenton's oxidation by Box-Behnken design of response surface methodology for landfill leachate	Journal of materials and environment science	7 (12), 4456-4466	0.65
30	Sandeep K. Malyan, Jagdeesh Kumar and <b>Smita S Kumar</b>	Assessment of ground water pollution of Saharanpur district, western Uttar-Pradesh	International journal of recent scientific research	1112-1115	
31	<b>Simta S Kumar</b> , S. Mery Cellin, Narsi R Bishnoi, Sandeep K. Malyan,	Phytoremediation of HMX contaminated soil through <i>Jatropha curcas</i>	International journal of recent scientific research	1444-1450	
<b>Book Chapters (5)</b>					
<b>S. No</b>	<b>Author's (Year)</b>	<b>Title</b>	<b>In Book and publisher (ISBN) page no</b>		

1	<b>Smita S Kumar</b> , Vivek Kumar, Suddhasatwa Basu	Electroanalytical Techniques for Investigating Biofilms in Microbial Fuel Cells	Bioelectrochemical Interface Engineering; Eds. Dr. R. Navanietha Krishnaraj and Dr. Rajesh Sani (Wiley)
2.	<b>Smita S Kumar</b> , Abudukeremu Kadier, Sandeep K Malyan, Altaf Ahmad, Narsi R. Bishnoi (2017)	Phytoremediation and Rhizoremediation: Uptake, mobilisation and sequestration of heavy metals by plants.	In: Dhananjaya Pratap Singh, Harikesh Bahadur Singh, Ratna Prabha, (eds) Plant-Microbe Interactions in Agro-Ecological Perspectives (Springer), pp 367-394. (ISBN: 978-981-10-6593-4)
3.	Sandeep K. Malyan, Amit Kumar, Jagdeesh Kumar, <b>Smita S. Kumar</b> (2016)	A water management tool in rice to combat two major environmental issues: Global warming and water scarcity.	In: Sanjay Kumar, and Masroor Ahmed Beg (eds) National Conference on Environmental concerns of 21 <sup>st</sup> century: Indian and global context (Book Age Publications), ( ISBN:978-93-83281-65-7), pp. 43-58
4.	<b>Smita S. Kumar</b> , Sandeep K. Malyan, Amit Kumar, Suddhasatwa Basu, Narsi R. Bishnoi (2016)	Microbial fuel cells Technology: Food to energy conversion by Anode respiring bacteria.	In: Sanjay Kumar and Masroor Ahmed Beg (eds) National Conference on Environmental concerns of 21 <sup>st</sup> century: Indian and global context (Book Age Publications), (ISBN:978-93-83281-65-7), pp. 13-29
5.	Sandeep K. Malyan, Amit Kumar, Swati Singh, <b>Smita S. Kumar</b> (2019)	Role of Fungi in climate change abatement through carbon sequestration	In: Yadav, A.N., Mishra, S., Singh, S., Gupta, A. (Eds.) Recent Advancement in White Biotechnology through Fungi (Spinger), (ISBN: 978-3-030-10480-1) doi: 10.1007/978-3-030-10480-1

#### Conference Proceedings with full paper (4)

S. No	Author's (Year)	Title	Conference	Place
1	<b>Smita S. Kumar</b> , Marshal S. Maskarenj, Prakash C. Ghosh, Sandeep K Malyan, Vivek Kumar, and Narsi R. Bishnoi*	Microbial Fuel Cell Technology: A Potential Tool for Microbe Mediated Remediation, Electrosynthesis and Generation of Renewable Energy	International Conference on Sustainable Energy and Environment Sensing (SEES 2018) ISBN: 9781912532018	Venue: Fitzwilliam College, University of Cambridge, Cambridge city, United Kingdom 18-19 June, 2018;
2.	Sandeep K. Malyan, Arti Bhatia, Renu Singh, <b>Smita S.</b>	Impact of Azolla application on	International Conference on Advances in	Hotel Mirage Lord Inn, Battishputli, Kathmandu, Nepal



	<b>Kumar</b> , Om Kumar, Joni Kumar, Rumesh Ranjan, Ritu Tomer (2017)	nitrous oxide emission from rice soils	Agricultural & Applied Sciences for Promoting Food Security	
<b>3.</b>	Sandeep K. Malyan, Jyoti Sharma, Manju Toor, <b>Smita S. Kumar</b> (2017)	Methane mitigation from rice soils through fertilizer management	International Conference on Emerging Areas of Environmental Science & Engineering	Guru Jambheshwar University of Science & Technology, Hisar-125001, Haryana, India
<b>4.</b>	<b>Smita S. Kumar</b> , Shiskha, Jyoti Sharma, Manju Toor, Sandeep K. Malyan, Narsi R. Bishnoi (2017)	Exploring power generation and COD removal efficiency of Sulphate reducing and Sulphur oxidizing bacteria in consortium.	International Conference on Emerging Areas of Environmental Science & Engineering	Guru Jambheshwar University of Science & Technology, Hisar-125001, Haryana, India.

#### **Conferences/Training/Workshops/Seminars/Symposium (23)**

<b>International Conferences:</b>	<b>08</b>
<b>National Conferences:</b>	<b>04</b>
<b>Trainings/workshops:</b>	<b>06</b>
<b>Seminars/symposium:</b>	<b>05</b>

1. Paper presented at International Conference on “Basic/Applied Sciences, Bioprocess Techniques, Environmental Engineering, and Clean Energy Technologies for Sustainable Swachha Bharat” (SYNERGY-2019). Organized by Krishi Sanskriti on 9th February, 2019 at Jawaharlal Nehru University, New Delhi
2. Presented paper at International Conference on Materials for Energy Applications, S.S. Jain Subodh P.G. College, Jaipur, 6-8 Dec, 2018.
3. Presented paper at International Conference on Sustainable Energy and Environment Sensing, 18-19 June, 2018 in Fitzwilliam College, University of Cambridge, Cambridge city, United Kingdom.
4. Presented paper at 3rd National Conference on Environmental Concerns of 21st Century: Indian and Global Context 27-28 March 2018; Zakir Husain Delhi College (Evening), University of Delhi, Jawaharlal Nehru Marg, New Delhi-110002
5. Presented paper at International conference on Emerging areas of Environmental Science and Engineering (EAESE-2017) GJUS&T, Hisar 16-18 February, 2017
6. National Workshop on Statistical Application in Research data analysis, GJUS&T, Hisar 24-25 February, 2017
7. Presented paper in national conference on “Environmental concerns of 21<sup>st</sup> century: Indian and global context” held on 21-22, March, 2016, at Zakir Husain Delhi College (Evening), University of Delhi.
8. Poster presentation in national seminar on “Recent innovative change in science and Technology, Humanities, Law & Commerce in context of human welfare” held on 29, March, 2016, at D.A.V. (P.G) College, Muzaffarnagar (U.P)-251001.
9. Poster presentation in national symposium on “Environmental Toxicology” held on 25-26 March, 2016, at Department of Zoology, CCS University, Meerut (U.P)-250001

10. Poster presentation in national conference on “Amelioration of air pollution effects in agricultural crops” on 15 March, 2016, at Department of Botany, Ch. Chhotu Ram (P.G.) College, Muzaffarnagar (U.P)-251001.
11. Poster presentation in 1<sup>st</sup> National Agricultural Research & Innovation Conference on “Balanced Fertilization: A Key to Food Security and Environmental Sustainability” February 24-25, 2016, held at Amity University- Noida.
12. Poster presentation in International conference on climate change and sustainable Management of natural resources on “Single cell oil of Bacterial strains as a new source of high-value biodiesel. Isolation and screening for storage lipids in cytoplasm” on February 9-11, 2015 at Gwalior, MP, India.
13. Poster presentation in 56<sup>th</sup> Annual conference on Association of Indian microbiology (7-10 Dec., 2015) on “Microalgae as a third-generation biofuel. Isolation and Screening of potential biodiesel producing microalgae” held at Jawaharlal Nehru University, New Delhi.
14. 56<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI-2015), JNU, New Delhi
15. 4<sup>th</sup> International Conference on Advances in Energy Research, Department of Energy Science and Engineering, Indian Institute of Technology Bombay, Mumbai, India (ICAER-2013)
16. 54<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI-2013) and International Symposium on Frontier Discoveries and innovations in Microbiology and its Interdisciplinary Relevance (FDMIR-2013), Maharishi Dayanand University, Rohtak.
17. Multidisciplinary Approach in Frontier Areas of Environmental Science and Engineering (MAFAESE- 2011) GJU S&T, Hisar, Haryana
18. National Seminar on Environmental Challenges-Sustainable Development (ECSD-2010) in Maharishi Dayanand University, Rohtak.
19. International conference (CETAS-2009) changing environmental trends and sustainable development at GJUS&T (Hisar) Haryana, India.
20. Attended National Workshop (RTET 2009) on Recent Trends in Engg. and Tech. at Guru Jambheshwar University of Science & Technology (Hisar) Haryana, India.