KASTURI DUTTA, Ph.D.

Associate Professor

CONTACT DETAILS
Room No. 244,
Department of Biotechnology and Medical Engineering,
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RESEARCH INTERESTS

- Waste valorization for value-added products (Biodiesel, Biochar, Bioenergy, bioelectricity)
- Bioremediation, Phytoremediation, constructed wetland
- Bioprocess Design, Optimization & Kinetics

CAREER HIGHLIGHTS

- ***Associate Professor***, Department of Biotechnology and Medical Engineering, National Institute of Technology Rourkela, India. (Jul 2024 – Present)
- ***Assistant Professor***, Department of Biotechnology and Medical Engineering, National Institute of Technology Rourkela, India (Jul 2015 – June 2024)
- ***Postdoctoral Research Fellow***, Institute of Environmental Engineering, National Chiao Tung University (NCTU), Hsinchu, Taiwan. (2012 –2013)
- ***Research Scientist (Manager)*** *at Reliance Industries Ltd. (December 2011 to April 2012)*

EDUCATION

- *Doctor of Philosophy* (Biotechnology), Indian Institute of Technology Guwahati (IITG), Guwahati, India, May, 2012.
- *Bachelor of Technology*, West Bengal University of Technology, Kolkata West Bengal 2006

EDITORIAL & REVIEWING EXPERIENCE

- **Editor of Book** "**Advances in Yeast Biotechnology for Biofuels and Sustainability: Value-Added Products and Environmental Remediation Applications**" published by **Elsevier**. Editor: Dr. Achlesh Daverey, **Dr. Kasturi Dutta**, Dr. Sanket Joshi, Dr. Teresa Gea. (2023; https://doi.org/10.1016/C2021-0-03452-0).
- **Associate Editor** for **"Applied Water Science**" (Springer) (March 2024-Present).
- **Editorial Board member** for "**Environment for Biotechnology**" Journal (BMC).
- **Guest Editor:** *International Biodeterioration & Biodegradation* (Elsevier); *Biocatalysts and Agriculture Biotechnology* (Elsevier); *Environmental Science and Pollution Research* (Springer); Ecotoxicology (Springer); *Applied Biochemistry and Biotechnology* (Springer); *SN Applied Sciences* (Springer); *Environmental Quality Management* (Wiley).

AWARDS/SCHOLARSHIPS/ACADEMIC ACHIEVEMENTS

- Awarded **Hiyoshi Environmental Award 2023** for significant contribution in research in environment.
- Awarded the ***best young scientist*** oral presentation award in the 6th CESE conference held on 29 Oct.- 2nd Nov, 2013, at Daegu, South Korea.
- Awarded postdoctoral fellowship from National Chiao Tung University (June 2012 to Dec 2013).
- Qualified ***GATE*** (Graduate Aptitude Test in Engineering) in 2006.
- **Convener** of series of conference 1st, 2nd and 3rd "International Conference on Bioprocess for sustainable Environment and Energy".

LIST OF PUBLICATIONS

(A) IN INTERNATIONAL JOURNALS

1. Singh, S., Mahanty, B., Gujjala, L.K.S. and **Dutta, K.,*** 2024. Optimized phenol degradation and lipid production by Rhodosporidium toruloides using response surface methodology and genetic algorithm-optimized artificial neural network. Chemosphere, 363, p.142971. doi.org/10.1016/j.chemosphere.2024.142971
2. Kumari, D. and **Dutta, K.,*** 2024. Studies on Cr (VI) removal by constructed wetland integrated microbial fuel cell: Effect of electrodes. Journal of Environmental Chemical Engineering, 12(4), p.113119. **https://doi.org/10.1016/j.jece.2024.113119**
3. Patil, M., Singh, S., Kumari, D., Daverey, A. and **Dutta, K.,*** 2024. Adsorption of azithromycin antibiotic from water onto biochar derived from Terminalia chebula and sugarcane bagasse. Water Practice & Technology, p.wpt2024140. **https://doi.org/10.2166/wpt.2024.140**
4. Singh, S., Behera, A.R., Ghosh, S., Daverey, A. and **Dutta, K**.*, 2024. Biodegradation of phenolic derivatives by Rhodosporidium toruloides: Effect on growth, cell morphology, lipid and biodiesel production. Journal of Water Process Engineering, 59, p.104961. **doi.org/10.1016/j.jwpe.2024.104961**
5. Mohanty, M., Mohanty, J., Dey, S., **Dutta, K**., Shah, M.P. and Das, A.P., 2024. The face mask: A tale from protection to pollution and demanding sustainable solution. Emerging Contaminants, p.100298. **doi.org/10.1016/j.emcon.2023.100298**
6. Jena, G., **Dutta, K**.* and Daverey, A., 2023. Surfactants in water and wastewater (greywater): environmental toxicity and treatment options. Chemosphere, 341, p.140082. **doi.org/10.1016/j.chemosphere.2023.140082**
7. Kumari, D. and **Dutta, K**.,* 2023. Study on the performance of vertical flow constructed wetland microcosm with Canna sps. for treatment of high chromium-containing wastewater. *Chemosphere*, *341*, p.139993. **doi.org/10.1016/j.chemosphere.2023.139993**
8. Das, A.P., **Dutta, K**., Khatun, R., Behera, I.D., Singh, S. and Mishra, S., 2023. Microfiber pollution and its microbial mitigation: A review on current trends and future prospects. *Journal of the Taiwan Institute of Chemical Engineers*, p.105104. **doi.org/10.1016/j.jtice.2023.105104**
9. Pandey, D., Daverey, A., **Dutta, K.*** and Arunachalam, K., 2023. Dye removal from simulated and real textile effluent using laccase immobilized on pine needle biochar. Journal of Water Process Engineering, 53, p.103710. https://doi.org/10.1016/j.jwpe.2023.103710
10. Priya A, Naseem S, Pandey D, Bhowmick A, Attrah M, **Dutta K**, Rene ER, Suman SK, Daverey A. Innovative strategies in algal biomass pretreatment for biohydrogen production. ***Bioresource Technology.*** 2022 Dec 5:128446. **(DOI: 10.1016/j.biortech.2022.128446)**

11. Pandey D, Daverey A, **Dutta K***, Arunachalam K. Enhanced adsorption of Congo red dye onto polyethyleneimine-impregnated biochar derived from pine needles. ***Environmental Monitoring and Assessment.*** 2022 Dec;194(12):1-12. **(DOI:10.1007/s10661-022-10563-1)**
12. Singh S, Bharadwaj T, Verma D, **Dutta K***. Valorization of phenol contaminated wastewater for lipid production by Rhodosporidium toruloides 9564T. ***Chemosphere.*** 2022 Dec 1;308:136269. **(DOI:10.1016/j.chemosphere.2022.136269)**
13. Pandey D, Daverey A, **Dutta K,*** Arunachalam K. Bioremoval of toxic malachite green from water through simultaneous decolorization and degradation using laccase immobilized biochar. ***Chemosphere.*** 2022 Jun 1;297:134126. **(DOI:10.1016/j.chemosphere.2022.134126)**
14. Patnaik S, Saravanabhupathy S, Singh S, Daverey A, **Dutta K**.* Multi-objective optimization for biomass and lipid production by oleaginous bacteria using vegetable waste as feedstock. ***Environmental Engineering Research.*** 2022 Jun;27(3). **(DOI:10.4491/eer.2021.061)**
15. Singh S, Pandey D, Saravanabhupathy S, Daverey A, **Dutta K***, Arunachalam K. Liquid wastes as a renewable feedstock for yeast biodiesel production: opportunities and challenges. ***Environmental Research.*** 2022 May 1;207:112100. **(DOI:10.1016/j.envres.2021.112100)**
16. Pandey D, Daverey A, **Dutta K*,** Yata VK, Arunachalam K. Valorization of waste pine needle biomass into biosorbents for the removal of methylene blue dye from water: Kinetics, equilibrium and thermodynamics study. ***Environmental Technology & Innovation.*** 2022 Feb 1;25:102200. **(DOI:10.1016/j.eti.2021.102200)**
17. Priya A, **Dutta K**, Daverey A. A comprehensive biotechnological and molecular insight into plastic degradation by microbial community. ***Journal of Chemical Technology & Biotechnology.*** 2022 Feb;97(2):381-90. **(DOI:10.1002/jctb.6675)**
18. Daverey A, **Dutta K**. COVID-19: Eco-friendly hand hygiene for human and environmental safety. ***Journal of environmental chemical engineering.*** 2021 Apr 1;9(2):104754. **(10.1016/j.jece.2020.104754)**
19. Daverey A, **Dutta K**, Joshi S, Daverey A. Sophorolipid: a glycolipid biosurfactant as a potential therapeutic agent against COVID-19. ***Bioengineered.*** 2021 Dec 20;12(2):9550-60. **(DOI:10.1080/21655979.2021.1997261)**
20. Pandey D, Verma S, Verma P, Mahanty B, **Dutta K,** Daverey A, Arunachalam K. SARS-CoV-2 in wastewater: challenges for developing countries. ***International journal of hygiene and environmental health.*** 2021 Jan 1;231:113634. **(DOI:10.1016/j.ijheh.2020.113634)**
21. Sahoo A, Mahanty B, Daverey A, **Dutta K***. Nattokinase production from Bacillus subtilis using cheese whey: effect of nitrogen supplementation and dynamic modelling. ***Journal of Water Process Engineering.*** 2020 Dec 1;38:101533. **(DOI:10.1016/j.jwpe.2020.101533)**
22. Behera AR, **Dutta K***, Verma P, Daverey A, Sahoo DK. High lipid accumulating bacteria isolated from dairy effluent scum grown on dairy wastewater as potential biodiesel feedstock. ***Journal of environmental management.*** 2019 Dec 15;252:109686. **(DOI:10.1016/j.jenvman.2019.109686)**
23. Behera AR, Veluppal A, **Dutta K***. Optimization of physical parameters for enhanced production of lipase from Staphylococcus hominis using response surface methodology. ***Environmental Science and Pollution Research.*** 2019 Nov;26(33):34277-84. **(DOI:10.1007/s11356-019-06906-0)**
24. Daverey A, Tiwari N, **Dutta K**. Utilization of extracts of Musa paradisica (banana) peels and Dolichos lablab (Indian bean) seeds as low-cost natural coagulants for turbidity removal from water. ***Environmental Science and Pollution Research.*** 2019 Nov;26(33):34177-83. **(DOI:10.1007/s11356-018-3850-9)**

25. Daverey A, Pandey D, Verma P, Verma S, Shah V**, Dutta K**, Arunachalam K. Recent advances in energy efficient biological treatment of municipal wastewater. ***Bioresource Technology Reports.*** 2019 Sep 1;7:100252. **(DOI: 10.1016/j.biteb.2019.100252)**

26. **Dutta K**, Dasu VV, Mahanaty B, Prabhu AA. Substrate Inhibition Growth Kinetics for Cutinase Producing Pseudomonas cepacia Using Tomato-peel Extracted Cutin. ***Chem. Biochem. Eng. Q***., 2015; 29 (3):437–445. **(DOI: doi.org/10.15255/CABEQ.2014.2022)**

27. A., Daverey, Chen YC, **Dutta K**, Huang YT, Lin JG. Start-up of simultaneous partial nitrification, anammox and denitrification (SNAD) process in sequencing batch biofilm reactor using novel biomass carriers. ***Bioresource Technology*** 2015; 190: 480-486. **(DOI: 10.1016/j.biortech.2015.02.064)**

28. A., Daverey, Chei PC, **Dutta K,** Lin JG. Statistical analysis to evaluate the effects of temperature and pH on anammox activity. ***International Biodeterioration and Biodegradation*** 2015; 120: 89-93. **(DOI: 10.1016/j.ibiod.2015.03.006)**

29. **Dutta K**, Tsai CY, Chen WH, Lin JG. Effect of carriers on the performance of anaerobic sequencing batch biofilm reactor treating synthetic municipal wastewater. ***International Biodeterioration and Biodegradation*** 2014; 95:84-88. **(DOI: 10.1016/j.ibiod.2014.04.021)**

30. **Dutta K**, Lee MY, Webber WP, Lai A, Lin YC, Lin CF, Lin JG. Removal of pharmaceuticals and organic matter from municipal wastewater using two-stage anaerobic fluidized membrane bioreactor. ***Bioresource Technology*** 2014;165:42-49. **(DOI: 10.1016/j.biortech.2014.03.054)**

31. **Dutta K**, Daverey A, Lin JG. Evolution retrospective for alternative fuels: First to fourth generation. **Renewable energy** 2014;69:114-122 (**DOI:** 10.1016/j.renene.2014.02.044).

32. **Dutta K**, Krishnamoorthy H, Dasu VV. Synthesis of methyl esters by transesterification catalyzed by cutinase from *Pseudomonas cepacia* NRRL B 2320 and kinetic analysis. ***Current trends in Biotechnology and Pharmacy*** 2014;8(1):1-10. **(DOI: NA)**

33. **Dutta K**, Dasu VV, Krishnamoorthy H. Development of medium and kinetic modeling for enhanced production of cutinase from *Pseudomonas cepacia* NRRL B-2320. ***Advances in Microbiology*** 2013;3(6):479-489. **(DOI: 10.4236/aim.2013.36064)**

34. **Dutta, K**., Krishnamoorthy, H. and Dasu, V.V., Preparation and Characterization of Cutinase Inducible Substrate, and Screening and Selection of Pseudomonas cepacia. **(DOI: NA)**

35. **Dutta, K.,** Krishnamoorthy, H. and Dasu, V.V., 2013. Novel cutinase from Pseudomonas cepacia NRRL B 2320: Purification, characterization and identification of cutinase encoding genes. The Journal of General and Applied Microbiology, 59(3), pp.171-184**.** **(DOI: 10.4236/abb.2015.64024)**

36. Daverey, A., Hung, N.T., **Dutta, K**. and Lin, J.G., 2013. Ambient temperature SNAD process treating anaerobic digester liquor of swine wastewater. Bioresource technology, 141, pp.191-198. (**DOI: 10.1016/j.biortech.2013.02.045)**

37. **Dutta, K.** and Dasu, V.V., 2011. Synthesis of short chain alkyl esters using cutinase from Burkholderia cepacia NRRL B2320. Journal of Molecular Catalysis B: Enzymatic, 72(3-4), pp.150-156. (**DOI: 10.1016/j.molcatb.2011.05.013)**

38. Sen, S., Dasu, V.V., **Dutta, K.** and Mandal, B., 2011. Characterization of a novel surfactant and organic solvent stable high-alkaline protease from new Bacillus pseudofirmus SVB1. Research Journal of Microbiology, 6(11), p.769. **(DOI: 10.3923/jm.2011.769.783)**

39. **Dutta, K.,** Sen, S. and Veeranki, V.D., 2009. Production, characterization and applications of microbial cutinases. Process Biochemistry, 44(2), pp.127-134. **(DOI: 10.1016/j.procbio.2008.09.008)**

B) IN A BOOK AS CHAPTERS

1. Kumari, D, Daverey, A, **Dutta K**. Microbial electrochemical-based constructed wetland technology for wastewater treatment: Reality, challenges, and future prospects. *Integrated*

Environmental Technologies for Wastewater Treatment and Sustainable Development, 2022, pp.383-413. **(Citations: 0, DOI:10.4491/eer.2021.061)**

2. Singh S, Sarkar P, **Dutta K**. Bioenergy: An overview of bioenergy as a sustainable and renewable source of energy. *Bioprospecting of Microbial Diversity*, 2022, pp.483-502. **(Citations: 0, DOI: 10.1016/B978-0-323-90958-7.00006-6)**
3. Verma P, Pandey D, Krishnaswamy U, **Dutta K**, Daverey A, Arunachalam K. Chapter 7: Simultaneous Wastewater Treatment and Carbon Capture for Energy Production. *In*: D. Pant et al. (eds.), Advances in Carbon Capture and Utilization, Energy, Environment, and Sustainability, 2021. **(Citations: 0, DOI: 10.1007/978-981-16-0638-0_7)**.
4. Pandey D, Singh S, **Dutta K**, Daverey A, Arunachalam K. Biochar based nanocomposites: a sustainable solution for water and wastewater treatment. In: H. Sarma et al. (eds.), Biobased Nanotechnology for Green Applications, Nanotechnology in the Life Sciences, **(Citations:0, DOI: 10.1007/978-3-030-61985-5_22)**
5. Sarkar KD, Amrutha V, **Dutta K**. An overview of enzyme-based biosensors for environmental monitoring. *In*: Tools, Techniques and Protocols for Monitoring Environmental Contaminants. *Eds*: S. K. Brar, K. Hegde and V. L. Pachapur. Publisher: **Elsevier**, Netherlands, 2019, pp. 3-17 (ISBN: 978-0-12-814679-8). **(Citations: 13, DOI: 10.1016/B978-0-12-814679-8.00015-7)**
6. Daverey A, **Dutta K,** Sarkar A. An overview of analytical methodologies for environmental monitoring. *In*: Tools, Techniques and Protocols for Monitoring Environmental Contaminants. *Eds*: S. K. Brar, K. Hegde and V. L. Pachapur. Publisher: **Elsevier**, Netherlands, 2019, pp. 307-325 (ISBN: 978-0-12-814679-8). **(Citations: 10, DOI: 10.1016/B978-0-12-814679-8.00001-7)**
7. Lin J, Daverey A, **Dutta K**, Guo W, Ngo H. Anammox: A Sustainable Technology for Nitrogen Removal and Water Recycling. *In*: Green Technologies for Sustainable Water Management. *Eds*: Huu Hao Ngo; Wenshan Guo; Rao Y. Surampalli; and Tian C. Zhang. Publisher: American Society for Civil Engineers (ASCE), USA, 2016, pp. 419-453. **(Citations: 2, DOI: 10.1061/9780784414422.ch12)**
8. Lin J, **Dutta K**, Daverey A, Guo W, Ngo H. Wastewater: A Potential Resource of Energy. *In*: Green Technologies for Sustainable Water Management. *Eds.*: Huu Hao Ngo; Wenshan Guo; Rao Y. Surampalli; and Tian C. Zhang. Publisher: American Society for Civil Engineers (ASCE), USA, 2016, pp. 419-453. **(DOI: 10.1061/9780784414422.ch23)**
9. **Dutta K**, Mahanty B, Daverey A, Sundari IS, Sen S. Biorefinery and Possible Negative Impacts on the Food Market. *In*: Platform Chemical Biorefinery: Future Green Chemistry. *Eds.*: Satinder K. Brar, Saurabh J. Sarma, Kannan Pakshirajan. Publisher: Elsevier, Netherlands, 2016, pp. 323-333. **(DOI: 10.1016/B978-0-12-802980-0.00017-1)**

C) CONFERENCE PAPERS (ABSTRACTS)

1. Parida MK. **Dutta K**. "Production of lipid from oleaginous yeast on various operational mode, utilizing different carbon and nitrogen sources: An overview". 2nd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2020), 5 to 7th March NIT Rourkela. March 2020.
2. Singh S, **Dutta K**. "Biodiesel production from Oleaginous yeast preferred over oleaginous algae: An overview". 2nd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2020), 5 to 7th March NIT Rourkela. March 2020.
3. Saravanabhupathy S, **Dutta K**. "Comparative study on the evaluation of lipid production by *Rhodococcus opacus* and DS-7 isolated bacteria using dairy wastewater". 2nd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2020), 5 to 7th March NIT Rourkela. March 2020.

4. Pagal S, **Dutta K**. "Enhanced production of nattokinase by Bacillus subtilis using combination of egg shell and other nitrogenous sources". 2nd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2020), 5 to 7th March NIT Rourkela. March 2020.
5. **Dutta K**. "Simultaneous phenol biodegradation with lipid production by *Rhodosporidium toruloides*". 14th International Conference on Challenges in Environmental Science and Engineering (CESE- 2021), 6 to 7th NOV Australia. NOV 2021.
6. Singh S, **Dutta K**. "Role of *Rhodosporidium toruloides* in the field of phenol degradation and lipid formation". Advances in Energy and Environment for Sustainable Development (AEESD-2022), 7 to 8th Jan 2022 March Siksha 'O' Anusandhan Bhubaneswar. Jan 2022.
7. Patil M, **Dutta K**. "Biochar: A sustainable solution for antibiotic removal". Advances in Energy and Environment for Sustainable Development (AEESD-2022), 7 to 8th Jan 2022 March Siksha 'O' Anusandhan Bhubaneswar. Jan 2022
8. Singh S, **Dutta K**. "Evaluating *Rhodosporidium toruloides* potential for hazardous organic compound degradation and lipid production under heavy metal stress". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
9. Kumari D, **Dutta K**. "Micro pollutant removal via constructed wetland-microbial fuel cell". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
10. Jena G, **Dutta K**. "Surfactants in Water and Wastewater (Greywater) during and post COVID-19: Challenges and Treatment Option". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
11. Khatua C, **Dutta K**. "*Rhodococcus opacus* an oleaginous bacterium plays a potential role in azo dye degradation and lipid production". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
12. Raut S, **Dutta K**. "Scientometric analysis of heavy metal removal via physical method.". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
13. Samantaray A, Singh S, Khatua C, **Dutta K**. "Kinetic modelling of growth and phenol". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
14. Mohanty S, Kumari K, **Dutta K**. "A Scientometric Analysis and Visualization through Cite space: Bioethanol Production". 3rd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE 2022), 20 to 24th June NIT Rourkela. June 2022.
15. Singh S, **Dutta K**. "Study on the biodegradation of phenol derivatives by oleaginous yeast *Rhodosporidium toruloides* 9564^T *and* effect of heavy metals on phenol degradation". 15th International Conference on Challenges in Environmental Science and Engineering (CESE-2022), 27 Nov to 1 Dec Dubai, UAE. Nov- Dec 2022.
16. Kumari D, **Dutta K**. "Enhanced hexavalent chromium treatment in a constructed wetland". 15th International Conference on Challenges in Environmental Science and Engineering (CESE-2022), 27 Nov to 1 Dec Dubai, UAE. Nov- Dec 2022.
17. Patnaik S, Behera AR, **Dutta K**. "Biomass and Lipid Production by Oleaginous Bacteria Isolated from Dairy Sludge Using Lignocellulosic Waste". 1st International Conference on Bioprocess for sustainable environment and energy (ICBSEE-India 2018), 6-7 Dec 2018, NIT Rourkela. Dec 2018.

18. Pagal S, **Dutta K**. "Review on Microbial Degradation of Plastic". 1st International Conference on Bioprocess for sustainable environment and energy (ICBSEE-India 2018), 6-7 Dec 2018, NIT Rourkela. Dec 2018.
19. Behera AR, **Dutta K**. "Effect of Carbon Sources on Biomass and Lipid Production of Isolated Microorganisms from Dairy Sludg". 1st International Conference on Bioprocess for sustainable environment and energy (ICBSEE-India 2018), 6-7 Dec 2018, NIT Rourkela, India. Dec 2018.
20. Behera AR, **Dutta K**. "Isolation and screening of transesterifiable lipid accumulating bacteria from dairy sludge for biodiesel production". 11th International conference on Challenges in Environmental Science & Engineering (CESE 2018), 04th to 08th Nov 2018, Bangkok, Thailand. Nov 2018.
21. Moharkar S, Sinha A, **Dutta K**. "Production of nattokinase using cheese whey: a byproduct of dairy industry". 11th International conference on Challenges in Environmental Science & Engineering (CESE 2018), 04th to 08th Nov 2018, Bangkok, Thailand. Nov 2018.
22. Behera AR, **Dutta K**. Optimization of production of lipase from Staphylococcus hominis using response surface methodology. 10TH International Conference on the Challenges in Environmental Science & Engineering (CESE 2017), 11th to 15th Nov 2017, Kunming China, Nov 2017.
23. **Dutta K**, Arora S, Daverey A. Advances in energy efficient technologies for low-strength wastewater treatment. 10TH International Conference on the Challenges in Environmental Science & Engineering (CESE 2017), 11th to 15th Nov 2017, Kunming China, Nov 2017.
24. **Dutta K**, Lee MY, Lin CF, Lin JG. Bioenergy production from simulated municipal wastewater treatment in two-stage anaerobic fluidized membrane bioreactor. 6TH International Conference on the Challenges in Environmental Science & Engineering (CESE 2013), 29 Oct. - 2 Nov. 2013, Daegu, South Korea, Nov 2013.
25. **Dutta K**, Tsai CY, Chen WH, Lin JG. Effect of carriers on the performance of anaerobic sequencing batch biofilm reactor treating synthetic municipal wastewater. 6^{TH} International Conference on the Challenges in Environmental Science & Engineering (CESE 2013), 29 Oct. - 2 Nov. 2013, Daegu, South Korea. Nov 2013.
26. **Dutta K**, Lee MY, Lin CF, Lin JG. Sewage treatment in anaerobic fluidized bed bioreactor. World biotechnology Congress (WBC 2013), 3-6 June, Boston, USA. June 2013.
27. **Dutta K**, Daverey A, Lin JG. Alternative fuel different options: progression from first generation to fourth generation. 5^{TH} International Conference on the Challenges in Environmental Science & Engineering (CESE-2012), 9-13 Sept., Australia, September 2012.
28. Liang YC, **Dutta K**, Daverey A, Lin JG. A pilot study of wastewater treatment by partial nitrification and anammox process. 5^{TH} International Conference on the Challenges in Environmental Science & Engineering (CESE-2012), 9-13 Sept., Australia, September 2012.
29. Dasu VV, **Dutta K**. Purification and deactivation study of cutinase from *Pseudomonas cepacia* NRRL B 2320. SIM Annual Meeting and Exhibition, 24-28 July, 2011, New Orleans LA, July 2011.
30. **Dutta K**, Dasu VV. Production of cutinase from *Pseudomonas cepacia* NRRL B2320: Screening of microorganisms and medium optimization. International Conference on Genomic Sciences (ICGS 2010), 12-14 Nov. 2010, Madurai Kamaraj University, Madurai, Tamil Nadu, India, Nov 2010.
31. **Dutta K,** Dasu VV. Effect of Different Inducers on the Production of Microbial Esterases. 3^{rd}Internatinal Congress on Bioprocess in Food Industries & 5^{th} Convention of the Biotech Research Society India, 6-8 November 2008, Osmania University, Hyderabad, Nov 2008.
32. **Dutta K,** Dasu VV. Effect of Tween 80 and Olive oil on production of Lipase by Pseudomonas species. Chemference 2008, 5-6 July 2008, IIT Kanpur, July 2008.