

Name of Faculty Dr C. Nagendranatha Reddy  
 Designation Assistant Professor  
 Nature of Job/Appointment Regular  
 Date of Joining 30-08-2019  
 E-mail Nagendranath\_biotech@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (Environmental Engineering and Biology)	Awarded
PG	M. Tech. (Biotechnology)	First Class
UG	B. Tech. (Biotechnology)	First Class

Work Experience	
Teaching	06 years (Includes Research Experience)
Research	04 years
Industry	--
Others	--

Area of Specialization Environmental Engineering

- Professional Memberships
1. Life Member of "The Biotech Research Society (BRSI), India" with LM No: 1455
  2. Membership of World Research Council for the year 2019-2020 with Accreditation number WRC-RRF-IND-1068

Responsibilities held at Institution Level Representing teacher for Internal Quality Assurance Cell (IQAC) from 15-06-2020 to till date

- Responsibilities held at Department Level
1. Special Invitee (Member) - Board of Studies
  2. Research Coordinator for the year 2019-20
  3. Member, Program Assessment Committee (PAC)
  4. Member, Course Expert Group (CEG)
  5. Member, Program Content Committee (PCC)
  6. Coordinator- MoUs
  7. Coordinator – Guest lectures

Research Guidance --

- Awards Received
1. 1st Foreign Exchange Visit- Visited Indian collaborator (as Co-Project Investigator), CSIR-Indian Institute of Chemical Technology, Hyderabad, India as part of the Indo-Korea collaborative project "Strategic biorefinery platform with integrated bioprocess in a self-sustained closed loop for multi-biobased product output" from Kyung Hee University, South Korea for a period of 8 days (5-12 January 2018)
  2. 2nd Foreign Exchange Visit- Visited Indian collaborator (as Co-Project Investigator), CSIR-Indian Institute of Chemical Technology, Hyderabad, India as part of the Indo-Korea collaborative project "Strategic biorefinery platform with integrated bioprocess in a self-sustained closed loop for multi-biobased product output" from Kyung Hee University, South Korea for a period of 7 days (10-15 September 2018)
  3. "Innovative Researcher in Environmental Engineering" conferred upon by RULA Awards & World Research Council on 26 February, 2019
  4. "Best Ph D Thesis Award 2017" conferred upon in the 1st ISEES International Conference on "Sustainable Energy and Environmental Challenges (SEEC-2017)" by International Society for Energy, Environment and Sustainability (ISEES) at Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India on 26-28th February, 2017
  5. "BIORESTEC 2018 Impactful research award" for highest citations from the Journal of Bioresource Technology for the review paper "Waste biorefinery models towards sustainable circular

- Bioeconomy: Critical review and future perspective”
6. Cover Page Article in "Bioresource Technology" journal (Impact factor -7.539): Figure 1 of publication "Induction of anoxic microenvironment in multi-phase metabolic shift strategy during periodic discontinuous batch mode operation enhances treatment of azo dye wastewater" has been selected as Cover Page Article for Special Issues: Challenges in Environmental Science and Engineering (CSE-2013) and International Conference on Advances in Biotechnology and Bioinformatics(ICABB- 2013) of the issue no 165 (2014) in the journal "Bioresource Technology" (Impact factor - 5.60)
  7. Best poster award for the topic “Resource Management, Recovery and its applications” at International conference “Asia Pacific conference on Biotechnology for Waste Conversion (BioWC 2016)” jointly organized by Sino-Forest Applied Research Centre for Pearl River Delta Environment (ARCPE) and Hong Kong Baptist University, Hong Kong on 6-8 December 2016.
  8. Semi-Finalist in "Young Scientist Competition-2015" organized by Indo-European Project (Indigo Projects) with highest number of votes to video titled " Novel Integrated PDBR-BET system for the remediation of textile dye-based wastewater" ([https://www.facebook.com/IndigoProjects/app\\_349313058487732](https://www.facebook.com/IndigoProjects/app_349313058487732))
  9. "CSIR-Senior Research Fellowship (CSIR-SRF)" award with ACK No: 181006/2K9/1on 15/02/2012 from Council of Scientific and Industrial Research (CSIR), India
  10. First prize for Oral presentation on “Nano medicine for Human Welfare”, at National conference 'Biovision 08' organized by Bharath University, Chennai on 25th January 2008.
  11. First Prize in “Intra-Departmental Quiz” competition organized by The Department of Biotechnology, Sathyabama University, Chennai on 18th march 2008
  12. Appreciation Prize for Oral presentation on “Nanowires induced in Blood vessel for stimulating Neurons” at Audisankara College of Engg. And Technology, Gudur.

Courses Handled at Under Graduate / Post Graduate Level.

Environmental Biotechnology, Phytochemicals and Herbal products

No. of Papers Published

National Journals – 03                      International Journals – 16

National Conference – 04                      International Conference – 10

Projects Carried out

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Patents

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Technology Transfer

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Invited Speaker / Resource Person

1. Invited talk on “Strategic role of nanotechnology in Biofuel Production: Potential applications and Latest trends” in 10 Days Internship Program on “Nanotechnology” during 20-30 July 2020 (Online)
2. Invited Plenary Lecture Talk on “Waste Biorefinery Models towards Sustainable Circular Bioeconomy: Current Prospects and Future Perspectives” in Online Colloquium on Prospects in Bioenergy Research during 04 July 2020 (Online)
3. “Outstanding Contribution in Reviewing” for December 2017 from Bioresource Technology (IF: 5.651)

No. of Books/Chapter Published with details

1. Bishwambhar Mishra, Rajasri Yadavalli, Y. Vineetha, C. Nagendranatha Reddy\* (2020). Recent advancements and challenges of nanomaterials application in biofuel production in “Nanomaterials Application in Biofuels and Bioenergy Production Systems” Elsevier. R. Praveen Kumar et al. (eds.), Accepted
2. C. Nagendranatha Reddy, B.Min (2019). Biological conversion of food waste to value addition in Microbial Fuel Cell in ‘Waste to Sustainable Energy: MFCs-Prospects through Prognosis’. CRC Press. L. Singh. et al. (eds.), ISBN: 9781138328211
3. C. Nagendranatha Reddy, K.Ramesh, B.Min (2019). Algal biocathodes in ‘Microbial Electrochemical Technology: Platform for Fuels, Chemicals and Remediation’. Biomass, Biofuels and Biochemicals. Elsevier. S. Venkata Mohan. et al. (eds.), <https://doi.org/10.1016/B978-0-444-64052-9.00021-2>
4. C. Nagendranatha Reddy, M.P. Sudhakar, B. Min, P. Shanmugam (2018). Future perspectives on cost-effective Microbial Fuel Cells in rural areas. Springer International Publishing AG, part of Springer Nature 2018, V. Sivasankar et al. (eds.), Microbial Fuel

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops/Other Trainings (Attended and/or Organized).

1. 10 Days Internship Program on “Nanotechnology” organized by Institute of Innovations, Tiruvannamalai during 13-23 July, 2020
2. Five Day Online Faculty Development Program on “Latest Trends and Future Prospects of Biotechnology” organized by Department of Biotechnology, National Institute of technology, Andhra Pradesh during 6-10 July 2020
3. One Week online Faculty Development Program on “Waste to Bioenergy” organized by Sharda University, NCR and Maharashtra Institute of Technology, Aurangabad during 28 June to 4 July, 2020
4. Five Days International Symposium on “Recent Advances in Electrochemical Sciences for Energy and Environment” organized by School of Science and Humanities and Department of Chemistry of Sathyabama Institute of Science and Technology during 15-19 June 2020
5. One Week Tequip-III sponsored short term course on “Trends and Prospects in Biorefinery” organized by Dr B.R. Ambedkar National Institute of Technology, Jalandhar during 10-14 June 2020
6. Organized a One Week webinar cum FDP Series on “Current Progress and Future Prospects of Biotechnology” organized by Department of Biotechnology, Chaitanya Bharathi Institute of Technology (A), Hyderabad in association with Andhra Pradesh Akademi of Sciences during 8-13 June 2020
7. Five Day Faculty Development Program on “Biofuels & its applications in IC Engines” organized by MEA Engineering College, Perinthalmanna during 1-5 June 2020
8. One week Online faculty Development Program on “Outcome Based Education (OBE) and NBA Accreditation Process (UG) organized by Chaitanya Bharathi Institute of Technology (A), Hyderabad
9. Five Day national Level Online Faculty Development Program on “Artificial Intelligence” organized by Department of CSE, IT and MCA in collaboration with Brain-O-Vision India Pvt. Ltd. During 22-26 May 2020

#### International Publications & Conferences from the year 2017

1. J.A. Modestra, C. Nagendranatha Reddy, K.V Krishna, B. Min, S. Venkata Mohan (2020). Regulated surface potential impacts bioelectrogenic activity, interfacial electron transfer and microbial dynamics in microbial fuel cell. *Renewable Energy*. 149, 424-434. (IF: 6.274)
2. C. Nagendranatha Reddy, S. Bae, B. Min (2019). Biological removal of H<sub>2</sub>S gas in a semi-pilot scale biotrickling filter: Optimization of various parameters for efficient removal at high loading rates and low pH conditions. *Bioresource Technology*. 285, 121328. (IF: 7.539)
3. C. Nagendranatha Reddy, H.T.H. Nguyen, M.T. Noori, B. Min (2019). Potential applications of algae in the cathode of microbial fuel cells for enhanced electricity generation with simultaneous nutrient removal and algae biorefinery: Current status and future perspectives. *Bioresource Technology*. 292, 122010. (IF: 7.539)
4. F. Carla, C. Nagendranatha Reddy, B. Min (2019). Enhanced methane production from acetate intermediate by bioelectrochemical anaerobic digestion at optimal applied voltages. *Biomass and Bioenergy*. 127, 105261 (IF: 3.551)
5. J. Gavilanes, C. Nagendranatha Reddy, B. Min (2019). Microbial electrosynthesis of bio-alcohols through reduction of high concentrations of volatile fatty acids. *Energy & Fuels*. 33, 4264-4271 (IF: 3.421)
6. M. Lee, C. Nagendranatha Reddy, B. Min (2019). In situ integration of microbial electrochemical systems into anaerobic digestion to improve methane fermentation at different substrate concentrations. *International Journal of Hydrogen Energy*. 44, 2380-2389 (IF: 4.939).
7. C. Nagendranatha Reddy, Booki Min and S. Venkata Mohan., (2019). Oral presentation entitled “Lipid recovery from dye based effluent using two stage integrated microalgae cultivation strategy” at international conference on “New Horizons in Biotechnology (NHBT 2019)” organized at Trivandrum, Kerala during November 20-24 2019
8. C. Nagendranatha Reddy, A.N. Kumar, S. Venkata Mohan (2018). Metabolic phasing of anoxic-PDBR for high rate treatment of azo dye wastewater. *Journal of Hazardous Materials*. 343, 49-58. (IF: 9.038)
9. C. Nagendranatha Reddy and Booki Min., (2018). Oral presentation entitled “Bioelectromethanogenesis from inorganic carbon in Microbial electrochemical systems: Influence of trace metals on conversion efficiency” at “International conference on Biotechnological research and innovation for sustainable development (BioSD 2018)” organized at Indian Institute of Chemical technology, Hyderabad on Nov 22-25, 2018.
10. C. Nagendranatha Reddy and Booki Min., (2018). Oral presentation entitled “Influence of trace metals on methane formation from inorganic carbon in microbial electrochemical systems” at “Second International conference on Sustainable energy and environmental challenges (SEEC 2018)” organized at Indian Institute of Science, Bangalore on Dec 31, 2017 to Jan 3, 2018.
11. C. Nagendranatha Reddy and Booki Min., (2017). Poster presentation entitled “Bioelectromethanogenesis for Biomethane Generation in a Single Chambered Microbial Electrolysis

Cell" at "International conference on Alternative Fuel & Energy" (ICAFE 2017) held at Daegu, South Korea on 23-25 October 2017.