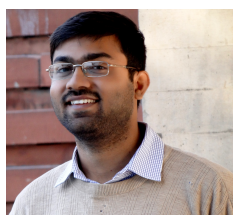


Profile Page



Name : Dr Nikhil G N

Designation : Assistant Professor

Department : Bio-Technology

Qualification : Ph.D. Biological Engineering Sciences (CSIR-Indian Institute of Chemical Technology, Hyderabad)
M.Tech Industrial Biotechnology (National Institute of Technology, Karnataka)
B.Tech Biotechnology (Bharathidasan University, Tiruchirapalli)

Email : nikhilgn@nitj.ac.in

Research Interests :

Biorefinery Concept: Bioenergy (Microbial Fuel Cells and Bioelectrochemical Systems), Biofuels (Biohydrogen, Biogas, Biohythane), Bioproducts (VFAs, Alcohols), Biopolymers (PHA, PLA, EPS)

Metabolic Engineering (in silico analysis): Network Biology and Systems Biology

Bioprocess Engineering: Fermentation Technology, Modeling, and Simulation

Environmental Biotechnology: Bioremediation, Biological Wastewater Treatment

Other Profile Links :

Google Scholar Link :

Dr GN Nikhil [Click Here](#)

Journal Publications :

Year	Journal	Publication
2022	Bioresource Technology Reports	Aneesh Moza, Neeraj Raja Ram, NK Srivastava, GN Nikhil, Bioprocessing of low-value food waste to high value volatile fatty acids for applications in energy and materials: A review on process-flow
2022	Bioresource Technology Reports	Neeraj Raja Ram, GN Nikhil, A critical review on sustainable biogas production with focus on microbial-substrate interactions: bottlenecks and breakthroughs
2018	Chemical Engineering Journal, 335, 267–274	G.N. Nikhil, D.N.S.K. Chaitanya, S. Srikanth, Y.V. Swamy, S. Venkata Mohan, Applied resistance for power generation and energy distribution in microbial fuel cells with rationale for maximum power point

2017	Chemical Engineering Journal, 326, 715-720	G.N. Nikhil, P. Suman, S. Venkata Mohan, Y.V Swamy, Energy-positive nitrogen removal of pharmaceutical wastewater by coupling heterotrophic nitrification and electrotrophic denitrification
2017	Bioresource Technology, 225, 34-39	S. Venkata Mohan, S. Srikanth, G.N. Nikhil, Augmentation of bacterial homeostasis by regulating in situ buffer capacity: Significance of total dissolved salts over acidogenic metabolism
2016	Bioresource Technology, 215, 247–253	G.N. Nikhil, Y. Dileep Kumar, S. Venkata Mohan, Y.V Swamy, Assessing potential cathodes for resource recovery through wastewater treatment and salinity removal using non-buffered microbial electrochemical systems
2016	Bioresource Technology, 215, 2-12	S. Venkata Mohan, G.N. Nikhil, P. Chiranjeevi, C. Nagendranatha Reddy, M.V. Rohit, A. Naresh Kumar, O. Sarkar, Waste biorefinery models towards sustainable circular bioeconomy: Critical review and future perspectives
2015	Theoretical and Applied Climatology, 125, 691-701	R. Venkanna, G.N. Nikhil, T. Siva Rao, P.R. Sinha, Y.V. Swamy, Role of lightning phenomenon over surface O ₃ and NO _x at a semi-arid tropical site Hyderabad, India: inter-comparison with satellite retrievals
2015	Air Quality Atmosphere & Health, 9, 379-390	R. Venkanna, G. N. Nikhil, P.R. Sinha, T. Siva Rao, Y.V. Swamy, Significance of volatile organic compounds and oxides of nitrogen on surface ozone formation at semi-arid tropical urban site, Hyderabad, India
2015	International Journal of Environmental Science and Technology, 12, 1749-1758	R. Venkanna, G.N. Nikhil, T. Siva Rao, P.R. Sinha, Y.V. Swamy, Environmental monitoring of surface ozone and other trace gases over different time scales: Chemistry, Transport, and Modeling
2015	Bioresource Technology, 195, 37-45	G.N. Nikhil, G.V. Subhash, Y. Dileep Kumar, S. Venkata Mohan, Closed circuitry operation influence on microbial electrofermentation: Proton/electron effluxes on electro-fuels productivity
2015	Energy, 88, 281–291	G.N. Nikhil, G.V. Subhash, Y. Dileep Kumar, S. Venkata Mohan, Synergistic yield of dual energy forms through biocatalyzed electrofermentation of waste: Stoichiometric analysis of electron and carbon distribution
2015	Bioresource Technology, 188, 65-72	G.N. Nikhil, S. Venkata Mohan, Y.V. Swamy, Applied potentials regulate recovery of residual hydrogen from acid-rich effluents: Influence of biocathodic buffer capacity over process performance
2015	International Journal of Molecular Sciences; 16, 9540-9556	R. Chandra, G.N. Nikhil, S. Venkata Mohan, Single-stage operation of hybrid dark-photo fermentation to enhance biohydrogen production through regulation of system redox condition: evaluation with real-field wastewater
2014	Bioresource Technology, 165, 323-331	G.N. Nikhil, S. Venkata Mohan, Y.V. Swamy, Systematic approach to assess biohydrogen potential of anaerobic sludge and soil rhizobia as biocatalysts: Influence of crucial factors affecting acidogenic fermentation
2014	CLEAN - Soil Air Water, 42, 809-814	M. Venkateswar Reddy, D.N.S.K. Chitanya, G.N. Nikhil, S. Venkata Mohan, P.N. Sarma, Influence of co-factor on enhancement of bioplastic production through wastewater treatment
2014	International Journal of Hydrogen Energy, 39, 7486-7495	G.N. Nikhil, S. Venkata Mohan, Y.V. Swamy, Behavior of acidogenesis during biohydrogen production with formate and glucose as carbon source: Substrate associated dehydrogenase expression
2013	Environmental Monitoring and Assessment, 185, 7309-7325	Y.V. Swamy, A.R. Sharma, G.N. Nikhil, R. Venkanna, D.N.S.K. Chitanya, P.R. Sinha, The impact assessment of Diwali fireworks emissions on the air quality of a tropical urban site, Hyderabad, India, during three consecutive years

2013	CLEAN - Soil Air Water, 41, 215-225	Y.V. Swamy, G.N. Nikhil, R. Venkanna, D.N.S.K. Chitanya, P.R. Sinha, S. Shailaja, A.G. Rao, Role of nitrogen oxides, black carbon, and meteorological parameters on the variation of surface ozone levels at a tropical urban site –Hyderabad, India
2012	Aerosol and Air Quality Research, 12, 662-671	Y.V. Swamy, R. Venkanna, G.N. Nikhil, D.N.S.K. Chitanya, P.R. Sinha, M. Ramakrishna, A.G. Rao, Impact of nitrogen oxides, volatile organic compounds and black carbon on atmospheric ozone levels at a semi-arid urban site in Hyderabad
2012	Bioresource Technology, 123, 471-479	M. Venkateswar Reddy, G.N. Nikhil, S. Venkata Mohan, Y.V. Swamy, P.N. Sarma, Pseudomonas otitidis as a potential biocatalyst for polyhydroxyalkanoates (PHA) synthesis using synthetic wastewater and acidogenic effluents
2012	Atmosfera, 25, 107-120	Y.V. Swamy, G.N. Nikhil, R. Venkanna, S.N. Das, G. Roy Chaudhury, Emission of methane and nitrous oxide from Vigna mungo and Vigna radiata legumes in India during the dry cropping seasons

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book Chapter	Biological and Thermochemical Strategies for Building Biorefinery Platform	Springer	Anjireddy Bhavanam, Amit Kumar, Neeraj and G. N. Nikhil*	978-3-030-96553-2	2022
Book Chapter	Advancements in Nanobiocatalysis for Bioenergy and Biofuel Production	CRC Press	G. Velvizhi, J. Ranjitha, S. Vijayalakshmi and G.N. Nikhil*	9780429023194	2020
Book Chapter	Bioelectrochemical Energy Transitions Persuades Systemic Performance	Elsevier	G.N. Nikhil and S. Venkata Mohan*	978-0-444-64052-9	2019
Book Chapter	Microbial fuel cell application for sludge remediation and minimization	Elsevier	G.N. Nikhil*	978-0-12-815908-8	2019
Book Chapter	Bio hydrogen Production: An outlook on fermentative processes and integration strategies	Springer	G.N. Nikhil, O. Sarkar and S. Venkata Mohan*	978-981-10-6862-1	2017
Book Chapter	Biohydrogen production scenario for Asian countries	Springer	R. Kataki, R.S. Chutia, N.J. Bordoloi, R. Saikia, D. Sut, R. Narzari, L. Gogoi, G.N. Nikhil, O. Sarkar and S. Venkata Mohan*	978-81-322-3577-4	2017

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
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Co-Investigator	Seed Grant	Production of Biogas from Kitchen waste of NITJ	TEQIP Phase-III	03-12-18	02-12-19	Rs. 3,00,000/-	Completed	Dr. Anee Mohanty and Dr. Sumer Singh Meena
Co-PI	STI Hub	Establishment of Science Technology and Innovation (STI) Hub for Empowerment of SC/ST	DST	05-11-20	04-11-2023	Rs.2,49,03,952/-	On-going	A team of seven
Co-PI	Industry sponsored R&D	Color Reduction of Effluent from ETP of Dyeing Unit	Trident Group	26-04-22	25-04-24	Rs. 531000/-	On-going	Dr. Jatinder Kumar Ratan, Dr. Nitin Naresh Pandhare and Dr. Sumer Singh Meena

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Online STC	National	Trends and Prospects in Biorefinery	Dept. of Biotechnology, NIT Jalandhar	10-06-2020	14-06-2020	Coordinator
Online STC/Workshop	National	Computational Tools for Analysis of Biological Systems	Dept. of Biotechnology, NIT Jalandhar	02-09-2020	06-09-2020	Coordinator

Professional Affiliations :

Designation	Organization
Life Member (1454)	Biotech Research Society of India (BRSI)
Member (202736)	Hong Kong Chemical, Biological & Environmental Engineering Society
Member (223824)	IAENG International Association of Engineers
Associate Member (AM184495-7)	The Institution of Engineers (India)
Life Member (214)	International Bioprocessing Association (IBA-IFIBiop)
Life Member (20002)	International Society for Energy, Environment and Sustainability (ISEES)
Life Member (4956-2020)	The Association of Microbiologists of India (AMI)
Member (1621064)	International Water Association (IWA)
Member (InSc20202872)	Institute of Scholars (InSc)
Member (200245301)	American Society for Microbiology (ASM)
Member	Association of Environmental Engineering and Science Professors (AEESP)
Life Associate Member (LAM71384)	Indian Institute of Chemical Engineers (IChE)

E-member (228606)	Society of Chemical Industry (SCI)
Professional Member (2021090002)	Institute for Science, Engineering and Technology (ISET) Research
Member	International Association for a Carbon-neutral Circular Economy
Life Member (135576)	Indian Society for Technical Education (ISTE)

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Poornima Maurya	Volatile fatty acids production through biological routes	On-going	2022	
Mr Neeraj	Biogas production using food waste	Ongoing	2019	

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Aditi Sarkar	Anaerobic digestion of solid waste	On-going	2023	
Piyusha	Algal lipids using domestic/industrial wastewater	On-going	2023	
Mahesh Kumar Verma	Algal lipids production using anerobic reactor effluent from isolated microalgae	Completed	2022	
Aneesh Moza	Microbial synthesis of short-chain organic acids from food waste	Completed	2022	Dr. N. K. Srivastava
Meenal	Metabolic network modelling to identify molecular markers during stress response in selective bacterial strains	Completed	2021	
Suninda Kumari	Molecular docking studies of selective bioactive compounds with key enzymes of anaerobic digestion	Completed	2021	Dr. Ajay Bansal
Roshan Singh	Bioethanol production through fermentation of food waste using baker's yeast	Completed	2021	Dr. Ajay Bansal

Admin. Responsibilities :

Position Held	Organization	From	To
Department Coordinator	Nationalinstitute of Technology Andhra Pradesh, Tadepalligudem	18-08-2016	06-01-2018

Award and Honours :

Title	Activity	Given by	Year
Best oral presentation award	Oral Presentation	2nd International Conference on Environmental, Agricultural, Chemical and Biological Sciences organized by VOICE	2021
Best Paper Award (Suninda Kumari, Neeraj and G.N. Nikhil*)	Poster presentation	International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2021)	2021
Young Researcher Award 2020	Scientific Publications	Institute of Scholars	2020
Bharat Ratna Kamaraj Memorial Young Scientist Award	Scientific contributions in the field of Biofuels and Biorefineries	Kamaraj College of Engineering and Technology, Madurai	2019

Impactful Research Award	19th Highest Cited Article	Bioresource Technology (Elsevier)	2018
Bharat Vikas Award	Scientific contributions in the area of Biotechnology	Institute of Self Reliance (ISR), Bhubaneswar	2017
International Travel Grant	Oral presentation at Hong Kong Baptist University, Hong Kong	Hong Kong Baptist University	2016
Best Poster Award	Poster presentation	Vellore Institute of Technology (VIT), Vellore	2016
Young Scientist Travel Grant	Poster presentation at Arizona State University, Tempe, USA	SERB-DST	2015
Young Scientist	Research Competition on the theme “Water for Health” at Rome, Italy	European Union-Indigo Policy and Agency for the Promotion of European Research (APRE)	2015
AU-CBT Excellence Award	Scientific Contributions in the area of Biotechnology	Biotech Research Society of India	2015
Best Poster Award	Poster presentation	Indian Institute of Tropical Meteorology, Pune	2013
Best Paper Award	Oral presentation	Vignan University, Guntur	2013
Senior Research Fellowship	Ph.D	Council of Scientific & Industrial Research (CSIR), India	2012
Young Scientist Travel Grant	Poster presentation at Peking University, Beijing	The International Global Atmospheric Chemistry Project, USA	2012
Graduate Aptitude Test for Engineering (GATE)	M.Tech Scholarship	MHRD	2007