

Dr. R.RAVIKUMAR. (Anna University, Chennai)
 Bioenergy and Bioproduct research lab
 Professor/Biotech



ORCID ID: 0000-0002-6010-0439

SCOPUS ID: 36180310400

Email: dravikumarr@veltech.edu.in

Mobile: +919942247173

Research Areas

Bioenergy and Environmental Biotechnology

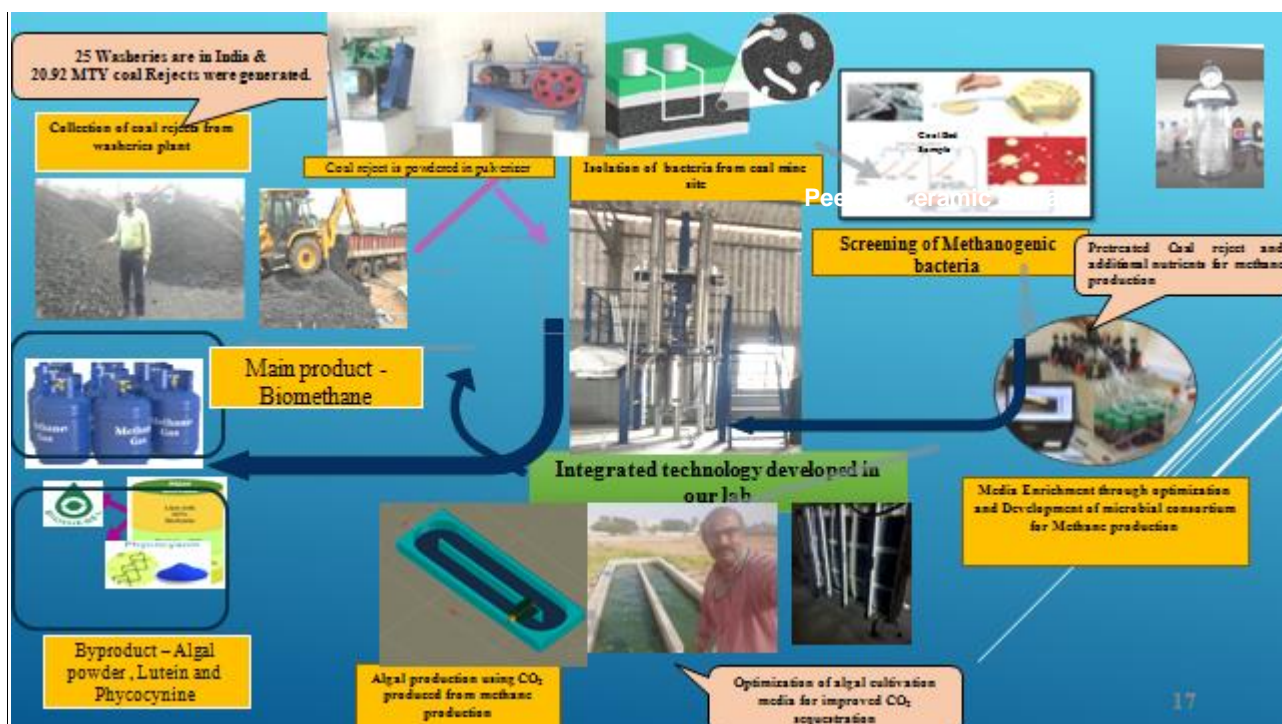
Projects & Publications Summary

Project		Publication Count		Citation Count			Impact Factor	
Completed	03	SCI	020	Citations	Google	SCOPUS	72.00	
Ongoing	02	SCOPUS	023		326	239		
Submitted	01	Books	000		h-index	12		10
		Books chapters	002		i10index	12		10

National/International Collaboration

- NITCalicut
- Scll Coal Mines
- Indian Institute of Technology (Indian School of Mines), Dhanbad
- Leibniz University Hannover Germany

Research snippets



Research facilities

- Industrial Pilot plant for bioenergy and bioproduct development
- Algal culture collection center
- Anaerobic bacterial culture



Outline of Research Works

- Biomethane production using coal washery reject
- Isolation of anaerobic bacteria
- Bioethanol production from lignocelulosic biomass
- CO₂ sequestration and algal growth
- Extraction of value added products from algae

Details of Funded Projects

S.No	Project Title	Funding agency	Amount (Rs.)	Duration	Collaboration
1	Microbial Recovery of Biogenic Methane from Coal Washery Rejects with CO ₂ Sequestration using Novel Hybrid Geo Photobioreactor and Reclamation of the Site	DST-CCORD	1,02,03,600	2019-2023 (Ongoing)	SCCL Coal mine and NITC
2	Conversion of lignite coal to biomethane and value added bioproducts for domestic application	Anna University, NLC Coal mine	12,00,000	2022 - 2025	Anna University, NLC Coal mine
3	Development of Novel and Intensified metabolic biorefinery Technology for sustainable ethanol production impregnating societal needs	DST-SERB	41,82,200	2014—2018 (Completed)	Individual
4	Development of an intensive and novel technology for ethanol production using fibrous cotton waste from textile mills in and around Coimbatore	Tamil Nadu State Council for Science and Technology	4,67,000	2014-2016 (Completed)	Individual
5	High-value coproduct strategy of Cyanobacteria biomass production utilizing Garcinia cambogia spent wash in a nano porous latex wetted wall freeze thaw photo bioreactor	DST-FYSS	15,50,000	2016-2019 (Completed)	Individual

Recent Best 5 SCI Publications				
<ul style="list-style-type: none"> • <i>Vinitha.P, Senthil kumar.P, Kirupa Sankar.M , Sivasubramanian.V, Syed.S, Loganathan. A, Ravikumar .R</i> ,Investigation on future perspectives of ex-situ biogenic methane generation from solid waste coal and coal washery reject, <i>Fuel</i>, Vol.318, pp.123-136, 2022 - IF:6.60. • <i>Vinitha.P, Senthil kumar.P, Kirupa Sankar.M , Sivasubramanian.V, Syed.S, Loganathan. A, Ravikumar .R</i> ,Investigation on the utilization of coal washery rejects by different microbial source isolated from coal site , <i>Chemosphere</i> , Vol.218, pp.7893– 7907, 2021 - IF: 7.05. • <i>Moorthy Ranjithkumarm Sivakumar Uthandi, P. Senthil kumar, Iniyakumar Muniraj, Velayutham Thanabal, Ravikumar Rajarathinam</i>, Highly crystalline cotton soining wastes utilization: Pretreatment optimized hydrolysis and fermentation using <i>Pleurotus florida</i> for bioethanol production, <i>FUEL</i>, Vol 308, pp 122-132,2021- IF-6.60 • <i>Kirupa Sankar Muthuvelu, Ravikumar Rajarathinam, Naresh Kumar Manickam and Sivakumar Uthandi</i>, Development of co-immobilized tri-enzyme biocatalyst system for one pot pretreatment of four different perennial lignocellulosic biomass and evaluation of their bioethanol production potential, <i>Bioreource Technology</i>, Vol69, pp 227-236, 2018 – IF – 9.64 • <i>Aratrika Sarkar, Ravikumar Rajarathinam, Ranganathan Budhi Venkateshan</i>, A comparative assessment of growth, pigment and enhanced lipid production by two toxic freshwater cyanobacteria <i>Anabaena circinalis</i> FSS 124 and <i>Cylindrospermopsis raciborskii</i> FSS 127 under various combinations of nitrogen and phosphorus inputs, <i>Environmental Science and Pollution Research</i>, vol. 28, no. 13, pp. 15923-15933. 2021.IF- 4.223 				
Patents				
Nanoparticle impregnated photo bioreactor for better light scattering to improve light distribution for growth of microalgae 201941032648				
Fellowships/Awards/Recognitions				
<ul style="list-style-type: none"> • Received Young Scientist award from DST • Received APP innovative researcher award from Association of Pharmacy. 				
PhD Thesis Guidance				
Scholar Name	Thesis Title	University	Status	Year
1 Aratrika Sarkar	Estimation of growth, pigments, CO ₂ sequestration, lipids and phthalic acid esters of toxic cyanobacteria in freshwater and their optimization by various statistical and computational approaches	Anna University	Completed	2022
2. Kirubashankar	Development of co-immobilized tri-enzyme biocatalytic system for one-pot pre-treatment of lignocellulosic biomass for sustainable bioethanol production	Anna University	Completed	2019
3. B.V.Ranganathan	Studies on integrated approach of <i>Garcinia cambogia</i> wash water Treatment, CO ₂ reduction and lipid Production using microalgal species	Anna University	Completed	2019
4. Naresh	Development of Novel and Intensified metabolic biorefinery Technology for sustainable ethanol production impregnating societal needs	Anna University	Completed	2018

Editorial/Review Activities
<ul style="list-style-type: none">• Bioresource Technology (SCI)• Clean Soil And Water (SCI)• Fountain Journal Of Natural And Applied Sciences• Environmental Progress and Sustainable Energy (SCI)• Environmental Protection Engineering (SCI)• Journal of Scientific Letters(SCI)