

**Dr. Krishnendu Kundu**  
**Senior Principal Scientist**  
**CSIR CMERI Centre of Excellence for Farm Machinery Gill**  
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**Area of Expertise:** Biodiesel and biogas production, Process optimization, Plant design (Batch, semi continuous and fully automatic), Fuel testing and characterization, Engine testing on biodiesel/biogas and required engine modifications, Briquetting technology and plant design, Algal biofuel, Waste to wealth

**Educational Details:**

Degree	University / Organization	Subject	Percentage	Year of Passing
Ph.D.	GBPUA&T, Pantnagar	Farm Machinery & Power Engineering	81.40	2006
NET	ICAR	Farm Machinery & Power Engineering	Qualified	2004
M. Tech.	GBPUA&T, Pantnagar	Farm Machinery & Power Engineering	81.70	2003
B. Tech.	BCKV, West Bengal	Agricultural Engineering	82	2000

**Professional Experiences:**

Designation	Organization	Duration
Senior Principal Scientist	CSIR - CMERI CoEFM, Ludhiana	01.02.2019 to till date
Principal Scientist	CSIR - CMERI CoEFM, Ludhiana	01.02.2014 to 31.01.2019
Senior Scientist	CSIR - CMERI CoEFM, Ludhiana	01.02.2010 to 31.01.2014
Scientist	CSIR - CMERI CoEFM, Ludhiana	23.11.2008 to 31.01.2010
Junior Scientist	CSIR - CMERI CoEFM, Ludhiana	23.11.2005 to 22.11.2008

**Research Scholars Guided/ Guiding:** Doctoral: 6; Masters: 39; Graduate: 37

**Publications:** SCI - 19, Book Chapters - 02, National Conference Proceedings - 25, Paper/ poster presentation in International Conference - 06, Non SCI - 26

**Patents filed:**

Sr. No.	Title	Country	Name of Inventors
1.	Glycerolysis process of fatty acid and use thereof in biodiesel production from high free fatty acid feedstock	India	Dr. Rajen Kundu <b>Dr. Krishnendu Kundu</b> Prof. (Dr.) Harish Hirani
2.	An automated bio-mass briquette production system	India	<b>Dr. Krishnendu Kundu</b> Mr. Siddappa Yellappa Pujar Mr. Siva Ram Krishna Vadali Mr. Prabhu Dutt Sharma Mr. Arup Majumder

**Design Copyright filed:**

Sr. No.	Title	Country	Name of Authors
1.	Process and logic diagram of fully automatic biodiesel plant	India	Dr. Pradeep Rajan Mr. Jetinder Raturi <b>Dr. Krishnendu Kundu</b> Mr. Sourav Mondal Prof. (Dr.) Harish Hirani
2.	Development of 10 kLd (kilolitre per day) Sewage Treatment Plant for serving 7.5 acre of agricultural land	India	Dr. Satya Prakash Singh <b>Dr. Krishnendu Kundu</b> Prof. (Dr.) Harish Hirani

**Design Registrations filed:**

Sr. No.	Title	Country	Name of Designers
1.	Fully Automatic Biodiesel Plant	India	<b>Dr. Krishnenedu Kundu</b> Mr. Prabhu Dutt Sharma Mr. Jetinder Raturi Dr. Pradeep Rajan Prof. (Dr.) Harish Hirani
2.	Automatic Biomass Briquetting Plant	India	Mr. Prabhu Dutt Sharma Mr. Sourav Nandan Dr. Pradeep Rajan <b>Dr. Krishnenedu Kundu</b> Prof. (Dr.) Harish Hirani

**Technologies / Processes Developed:**

- Batch Type Biodiesel Plant for Farmers
- Semi Continuous Biodiesel Plant
- Deoiled Jatropha Cake Fed Biogas Plant
- 100% Biofuelled Tractor
- Biodiesel, Biogas and Bioethanol from Algae

- Jatropha Expeller, Dehuller, Decorticator
- Kitchen Waste Biogas Plant
- Biomass Briquetting Plant
- Glycerol Purification Plant
- Community level Biogas Plant based on Agricultural, Dairy and Kitchen Waste
- Fully Automatic Biodiesel Plant

#### **Development of Laboratories / Infrastructure Development:**

*Established a new department, namely "Department of Biofuel" (Now Energy and Post-Harvest Technology Group) in CSIR CMERI CoEFM comprising six state of art laboratories:*

- Biodiesel Processing Laboratory
- Fuel Testing Laboratory
- Biogas Laboratory
- Biodiesel Processing Machinery Laboratory
- Chromatography Laboratory
- Multifuel VCR Engine Testing Laboratory

#### **Member / Fellow of Professional Societies:**

- Fellow, Society for Applied Biotechnology
- Fellow, Association for Advancements in Biodiversity Science
- Life Member, Biodiesel Society of India
- Life Member, Indian Society for Technical Education (ISTE)
- Life Member, Society for Educational & Scientific Research
- Member, Indian Science Congress Association
- Member of BIS (Renewable Fuel: PCD: 5)

#### **Projects handled so far:**

Sr. No.	Title	Role	Category	Budget	Status
1.	Generation of Biogas from Biomethanation of Deoiled Cake of Jatropha Seeds	Project Leader	Sponsored (PCRA)	19.96 Lakh	Completed
2.	Design and Development of Semi Continuous Type Biodiesel Plant for Rural Sector	Project Leader	In House	6.77 Lakh	Completed
3.	Infrastructural facilitation of Biodiesel Testing Laboratory	Project Leader	In House	14.76 Lakh	Completed
4.	Development of 100 % Biofuelled Tractor (in collaboration with M/s. ITL, Hoshiarpur)	Project Leader	Sponsored (DST)	51.54 Lakh	Completed
5.	Technological Support to MSME Auto Cluster under the Collaborative Programme between CSIR and NInC	Project Leader	Sponsored (DSIR)	28.00 Lakh	Completed
6.	Technological Support to MSME Bamboo Cluster under the Collaborative Programme between CSIR and NInC	Project Coordinator	Sponsored (DSIR)	9.25 Lakh	Completed

Sr. No	Title	Role	Category	Budget	Status
7.	Design and Development of 25m <sup>3</sup> /day Biogas Plant at Ramakrishna Mission, Sargachi, West Bengal	Project Leader	Sponsored (Dept. of Env., Govt. of W.B)	4.22 Lakh	Completed
8.	Design and Development of Roof Top Biogas Plant on Solid State Fermentation Using Kitchen Waste	Project Leader	Sponsored (PCRA)	20.18 Lakh	Completed
9.	Production of Biodiesel from Tung Seed in North-East India	Project Leader	Sponsored (PCRA)	9.28 Lakh	Completed
10.	Production of Briquettes from Agricultural Residues, its Process Optimization and Quality Analysis	Project Leader	In House	15.72 Lakh	Completed
11.	Design and Development of 1 TPD Fully Automatic Biodiesel Plant	Project Leader	CSIR (FTT)	77.72 Lakh	Completed
12.	Development of 10 KLD Sewage Treatment Plant for Serving 7.5 Acre of Agricultural Land	Co- Project Leader	In House	5.67 Lakh	Completed
13.	Fabrication of MBIU	Member	Sponsored (DST & CRRRI)	120 Lakh	Completed
14.	Design and Development of Neem Decorticator, Dehuller and Expeller	Member	In House	7.61 Lakh	Completed
15.	Design and Development of 6 TPD Jatropha Expeller	Member	In House	12.68 Lakh	Completed
16.	Preparation of DPR towards Establishment of ARCAM	Member	Sponsored (DST)	4.90 Lakh	Completed
17.	Solar Biodiesel Hybrid Mini Grid of 50kW Peak Capacity at CSIR CMERI, Ludhiana Campus	Member	In House	73.20 Lakh	Completed
18.	Production and Supply of 15000 Litre of Biodiesel to M/s. International Tractors Limited, Hoshiarpur	Project Leader	Sponsored (M/s. ITL)	32.50 Lakh	Ongoing
19.	Biofuel Value Chain from Karanja Seed for Sustainable Energy Production	Project Leader	Sponsored (Dept. of Forests & Wildlife Preservation, Punjab)	23.50 Lakh	Ongoing
20.	Design and Development of Inline Biomethane Enrichment and CO <sub>2</sub> Separation System	Project Leader	Sponsored (PCRA)	19.96 Lakh	Approved (Fund awaited)
21.	Sustainable Fruit and Vegetable Market Waste Management in APMC Mandis	Co- Project Leader	Sponsored (Punjab Mandi Board, Mohali)	22.42 Lakh	Approved (Fund awaited)

### Commercialization of Technologies:

Name of Technology	Licensees
Semi continuous biodiesel plant	M/s Best Engineering Technologies, Hyderabad M/s Basudev Biodiesel LLP, Bhubaneswar M/s Sains Engineering Works, Ludhiana M/s Hindustan Biodiesel, New Delhi M/s York Steel Fabricator, Ludhiana M/s Fabcon Engineers, Chennai
Automatic biomass briquetting plant	M/s Dipsam Shakti Pvt. Ltd., West Bengal
Biogas plant from deoiled cake of Jatropa	M/s Medors Biotech Pvt. Ltd., New Delhi

### Recognition / Awards / Honors:

- Bio Scientist 2016 from SESR
- Received Best Paper Award during International Seminar on Renewable Energy and Sustainable Development" held at Royal University of Bhutan, Thimpu, Bhutan during 15-17 June, 2015 organized by WEENTECH, London, UK
- Brilliance in Research Award 2014 by SESR
- Outstanding Bioscientist Award 2013 by AABS
- Young Engineer Award 2008 by Institution of Engineers (India) for outstanding contribution in the field of Agricultural Engineering
- Professor (Honorary) at Academy of CSIR (AcSIR)
- Best Poster Presentation Award (Second position) on Innovative Idea during 49<sup>th</sup> RC at CSIR CMERI
- Best Paper Award at National Symposium on Innovative and Modern Technologies for Agricultural Productivity, Food Security and Environmental Management
- National Renewable Energy (NRE) Fellowship during Ph.D. Programme Awarded by Ministry of Non- Conventional Energy Sources (MNES)
- Best M. Tech. Thesis Award (2<sup>nd</sup> Prize) in Agricultural Engineering awarded by Indian Society for Technical Education (ISTE)
- ICAR Junior Research Fellowship awarded by Indian Council of Agricultural Research during M. Tech Programme (All India Rank- 5)
- National Scholarship Awarded By W. B. C. H. E. in the year 1996
- National Scholarship Awarded By W. B. B. S. E. in the year 1994

### Workshops Organized:

- Half day Technology Dissemination Workshop on "Production of Biodiesel from Tung Seeds" at Mizoram, Aizwal on 24<sup>th</sup> April, 2018
- One Day Technology Dissemination Workshop on "Kitchen Waste Biogas Plant" on 2<sup>nd</sup> February, 2018
- National Workshop on "Biofuels: Production Methodologies, Utilization Techniques and Challenges Ahead" during 22-23 March, 2007

- National Workshop on “Engineering Metrology & Quality for Growth” during 15 -16 February, 2007
- Workshop on “Semi Continuous Biodiesel Plant” on 7<sup>th</sup> may, 2008
- Seminar on “Generation of Biogas through Biomethanation of Deoiled Cake of Jatropha” on 20.03.2009

#### Foreign Visit:

- Visited Addis Ababa, Ethiopia under CSIR MIDI Twinning Programme from 6-16 March, 2018
- Visited Biratnagar, Nepal for installation and commissioning of Jatropha Cake fed Biogas Plant during 23-30 September, 2011
- Visited Kathmandu, Nepal during 30.07.2010 to 01.08.2010 for delivering lecture on CMERI’s achievements in the field of Biofuel at Planning Commission, Nepal
- Visited Nepal for commissioning of two Semi Continuous Type Biodiesel Plant under Ministry of Environment, Govt. of Nepal aided project during 12-16 Sept, 2009
- Attended International Agricultural Engineering Conference (IAEC - 2007) at Asian Institute of Technology, Bangkok for presentation of research paper and chaired one technical session during 3- 6 December, 2007 sponsored by ISTAD, CSIR, New Delhi

#### PUBLICATIONS

##### Book Chapters:

1. R. Karmakar, A. Rajor and **K. Kundu** (2019): Biodiesel Production from Unused Mixed Culture of Algae. *Waste Valorisation and Recycling (Springer)*; Pp. 273-279. [https://doi.org/10.1007/978-981-13-2784-1\\_26](https://doi.org/10.1007/978-981-13-2784-1_26)
2. **K. Kundu**, A. Chatterjee, T. Bhattacharyya, M. Roy and A. Kaur (2018): Thermochemical Conversion of Biomass to Bioenergy: A Review. *Prospects of Alternative Transportation Fuels (Springer)*; Pp. 235-268. ISBN: 978-981-10-7517-9

##### Research Papers: (SCI Journals)

1. Kataria, J., Mohapatra, S.K., **Kundu, K.** (2019): Biodiesel production from waste cooking oil using heterogeneous catalysts and its operational characteristics on variable compression ratio CI engine. *Journal of the Energy Institute*, Vol. 92 (2), Pp: 275-287
2. Mandal, S., & **Kundu, K.** (2019): Synthesis of biodiesel by KOH-catalyzed methanolysis of flaxseed oil and determination of fuel properties. *Biofuels (Taylor & Francis)*, DOI: 10.1080/17597269.2019.1573603
3. Singh, G., Mohapatra, S.K., Ragit, S.S., **Kundu, K.** (2018): Optimization of biodiesel production from grape seed oil using Taguchi's orthogonal array. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis)*, Vol. 40 (18). Pp: 2144-2153
4. Karmakar, R., **Kundu, K.**, Rajor, A. (2017): Fuel properties and emission characteristics of biodiesel produced from unused algae grown in India. *Petroleum Science (Springer)*, Vol. 15(2). Pp: 385-395

5. Karmakar, R., Rajor, A., **Kundu, K.**, Kumar, N. (2017): Production of biodiesel from unused algal biomass in Punjab, India. *Petroleum Science (Springer)*, Vol. 15(1).Pp: 164-175
6. Kumar, N., Mohapatra, S.K., Ragit, S.S., **Kundu, K.**, Karmakar, R. (2017): Optimization of safflower oil transesterification using the Taguchi approach. *Petroleum Science (Springer)*, Vol. 14(4). Pp: 798-805
7. Sodhi, A.K., Tripathi, S., **Kundu, K.** (2017): Biodiesel production using waste cooking oil: a waste to energy conversion strategy. *Clean Technologies and Environmental Policy (Springer)*, Vol. 19:6. pp 1799–1807
8. Kataria, J., Mohapatra, S.K., **Kundu, K.** (2017): Biodiesel production from frying oil using zinc-doped calcium oxide as heterogenous catalysts. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis)*, Vol. 39:9. Pp: 861-866.
9. Vasudeva, M., Sharma,S., Mohapatra, S. K. and **Kundu, K.** (2016). Performance and exhaust emission characteristics of variable compression ratio diesel engine fuelled with esters of crude rice bran oil. *Springer Plus*. Vol. 5:293. Pp: 1-13.
10. Mandal, S., Kumar, A., Singh, R. K., Ngachan, S. V. and **Kundu, K.** (2014). Drying, Burning and emission Characteristics of Beehive Briquettes: An Alternative Household Fuel of Himalayan Region. *Journal of environmental Biology*. Vol. 35: 543-548
11. Ragit, S., Mohapatra, S. K., and **Kundu, K.** (2014) Comparative Studies on Performance Characteristics of CI Engine Fuelled with Neem Methyl Ester and Mahua Methyl Ester and its Respective Blends with diesel Fuel. *Journal of Environmental Science and Engineering*, Vol. 56. No. 1. Pp: 73-78.
12. Ragit, S., Mohapatra, S. K., and **Kundu, K.** (2012). Experimental Evaluation of the single cylinder, 4-stroke CI Engine using hemp oil and its respective blends, *Indian Journal of Environmental Sciences*. 16 (1), Pp.17-21.
13. Ragit, S., Mohapatra, S. K., **Kundu, K.** and Gill P. (2012) Brown hemp methyl ester: Transesterification process and evaluation of fuel properties. *Biomass and Bioenergy* 41. Pp: 14-20.
14. S.S.Ragit, S.K.Mohapatra, K. Kundu, Gill, P., (2011). Optimization of neem methyl ester from transesterification process and fuel characterization as a diesel substitute. *Biomass and Bioenergy*, Vol. 35, Issue 3, pp. 1138-1144.
15. Gill, P., Soni S.K. and Kundu, **K.** (2011) Comparative Study of Hemp and Jatropha Oil Blends Used as Alternative Fuel in Diesel Engine. *Agric. Eng Int. CIGR Journal*. Vol 13, No. 3
16. Ragit, S., Mohapatra, S. K., and **Kundu, K.** (2011). Comparative Study of Engine Performance and Exhaust Emission Characteristics of a Single Cylinder 4 – Stroke CI Engine Operated on the Esters of Hemp Oil and Neem Oil. , *Indian Journal of Engineering and Material Sciences*, Vol. 18. Pp. 204-210
17. Ragit, S., Mohapatra, S. K., and **Kundu, K.** (2010). Performance and Emission Evaluation of a Diesel Engine Fuelled With Methyl Ester of Neem Oil and Filtered Neem Oil, *Journal of Scientific and Industrial Research*, Vol. 69, Pp 62-66
18. Sarin, A., Arora, R., Singh, N.P., Sarin, R., Malhotra, R.K., **Kundu, K.** (2009). Effect of blends of Palm – Pongamia biodiesels on cloud point and pour point. *Energy*. 34 2016–2021
19. **Kundu, K.** and Bhattacharya, T. K. (2007). Heat transfer characteristics of family size Pant Tarai biogas plants under low ambient temperature regime. *Journal of the Institution of Engineers*, Vol. 88, June 2007, Pp. 6-11

### Conference Proceedings:

1. Ragit S.S., **Kundu, K.**, Sharma, A. (2019). Performance & Emission characteristics of VCR Diesel Engine fuelled with blends of Babassu oil methyl esters and diesel. 17<sup>th</sup> International conference of Indian Society of Ergonomics (ISE) on Humanizing Work and Work Environment at NIT Jalandhar. November 8-10
2. Ragit S.S., **Kundu, K.**, Sharma, A. (2019). Experimental Investigation on VCR Diesel Engine fuelled with different blends of Sal Oil Methyl Ester. 26<sup>th</sup> National Conference on Internal Combustion, organized by Department of Mechanical Engineering. November 1-4
3. Karmakar R., Rajor A., **Kundu K.** (2017). Biodiesel Production from Unused Mixed Culture of Algae. Proceeding (Global Waste Management 2017) of 7<sup>th</sup> International Conference on Solid Waste Management; Page- 982- 987. Professor Jayshankar Telengana State Agricultural University, Hyderabad, Telengana, India, December 15- 17
4. Roy. M., **Kundu. K.** (2016). Production of bioethanol and biogas from mixed indigenous algae: A potential source for third generation biofuel. Proceedings of International Conference on Green Technology for Health and Environment: Implementations and Policies; December, 2016
5. Kaur. A., **Kundu. K.**, Roy. M. (2016). Microbial pretreatment of biomass for enhanced biogas production. Proceedings of International Conference on Green Technology for Health and Environment: Implementations and Policies; December, 2016
6. Roy, M., **Kundu, K.** and Dahake V. R. (2015). Effect of Process Parameters for Standardization of Esterification of Coconut Oil for Production of Biodiesel. Proceedings of National Seminar on Biofuel; December, 2015; Pp. 42-50
7. Bhardwaj, V., Sharma, S., Mohapatra, S. K., **Kundu, K.** (2013). Performance and Emissions Characteristics of a C.I. Engine Fuelled with Different Blends of Biodiesel Derived from Waste Mustard Oil. Proc. of Fourth International Joint Conference on Advances in Engineering and Technology, AET 2013. Delhi: 13<sup>th</sup> & 14<sup>th</sup> Dec., 2013
8. **Kundu, K.**, Dahake, V. R., Rajan, P. and Bhattacharya, T. K., Future Farm Technologies And Energy Demand In Agriculture Sector, National Seminar on Augmenting Productivity on Mountain Farming through Agricultural Engineering Intervention to be held at CSKHPKV, Nov. 16-17, 2011
9. Ragit S.S., Mohapatra, S. K., **Kundu, K.**, and Dahake, V., Performance and emission characteristics of diesel engine fuelled with hemp oil and 20% blends of hemp oil with diesel fuel, Proceedings of National Workshop on ETME, MED, G.H. Patel College of Engineering and Technology, VallabhVidyanagar, Anand, Gujarat, pp. 25-31, 18<sup>th</sup> - 19<sup>th</sup> March, 2011
10. Ragit S.S., Mohapatra, S. K., **Kundu, K.**, and Dahake, V., Optimization of Mahua biodiesel by different production technique, Proceedings of National Workshop on AChemE, CED, Thapar University, Patiala, February 27-28, pp. 166-171, 2011
11. Ragit S.S., Mohapatra, S. K., **Kundu, K.**, and Dahake, V., Experimental Investigation of Performance and Emission of Hemp Biodiesel and Its Blends with Diesel in a Single Cylinder 4 Stroke Diesel Engine, Proceedings of National Conference on Advancements and Futuristic Trends in Mechanical and Industrial Engineering, GITM, Yamuna Nagar, Haryana, 12-13 November, 2010, pp 235-241
12. Ragit S.S., Mohapatra, S. K., **Kundu, K.**, and Dahake, V., A Comparative Analysis on the Performance and Exhaust Emission Characteristics Using Raw Hemp Oil and Filtered Neem Oil in Diesel Engine, Proceedings of National Conference on Futuristic Trends in Mechanical Engineering, FTME-2010, GNE Ludhiana, 29<sup>th</sup> -30<sup>th</sup> October, 2010, pp 70-74



13. **Kundu, K.** Biogas from Deoiled Cake of Jatropha - An Alternate path for Decentralized Power Generation. Paper presented at Golden Jubilee Symposium at IIP, Dehradun during 10-12 Jan, 2010
14. Kundu K., Mohapatra, S. K. and Ragit, S. S., Experimental Evaluation of Performance and Exhaust Emission of Neem Methyl Ester and Neem Ethyl Ester Fuelled with Diesel Engine, Proceedings of National Workshop on STEM, G.B. Pant University, Uttarakhand, October 29-31, 2009
15. Kundu K., Mohapatra, S. K. and Ragit, S.S., 'Production Technology and Economic Evaluation of Neem Biodiesel (Neem Methyl Ester), Book of abstracts of National Conference on Emerging Trends in Mechanical Engineering (ETME), NIT Surat, June 04-05, (2009), pp 25
16. Kundu., K., Dahake, V R., Rajan, P., Ragit, S. S. (2009). Standardization of Esterification Process Parameters for the Production of Jatropha Methyl Ester and Its effect on Viscosity and Recovery. Paper presented in 42nd Annual Convention of ISAE held at BAU, Ranchi
17. **Kundu, K.**, Dahake, V. R., Rajan, P. (2008). Design and Development of Semi Continuous Type Biodiesel Plant. Proc. of All India Seminar on Alternative Energy systems - Challenges and Present Trends organized by Institution of Engineers (India) at Kolkata during Oct 5-6, 2008. Pp. 77-80
18. **Kundu, K.**, Bhattacharya, T. K., Dahake, V. R. and Rajan, P. (2007).Performance Evaluation of a CI Engine on Jatropha Ethyl and Methyl Ester under Rating Test. (Paper presented and published in Proceedings of International Agricultural Engineering Conference held at AIT, Bangkok during 3-6 December, 2007)
19. **Kundu, K.**,Chaturvedi, O. P., Mande, P. and Dahake, V. R. (2007). Biofuel Market Analysis and Recent Research Trends. Proc. of the "International Seminar on Clean Energy" held at CMERI, Durgapur, October, 2007
20. **Kundu, K.** and Rajan, P. (2007). Strategy for Development of Biofuel in India. Proceedings of National Seminar on "Biofuels: Production Methodologies, Utilization Techniques and challenges Ahead", March, 2007, Pp. 185-196
21. Yaduvanshi, B. K., Bhattacharya, T. K., Rajan, P. and **Kundu, K.** (2007). An Investigation into Jatropha Oil Extraction through Oil Expeller. Proceedings of National Seminar on "Biofuels: Production Methodologies, Utilization Techniques and Challenges Ahead", March, 2007, Pp. 197-204
22. Kundu K., Mohapatra, S. K. and Ragit, S. S., Production, Optimization and Characterisation of Neem Biodiesel (Neem Methyl Ester), Proceedings of National Workshop on BIOFUELS, MERADO, Ludhiana, March 22-23, 2007
23. Chaturvedi, O. P., Mande, P. and **Kundu, K.**(2007). Biodiesel Characterization - An Overview. Proc. of National Seminar on Farm Mechanization held at CMERI, Durgapur, February 25-26, 2008
24. **Kundu, K.** and Bhattacharya, T. K. (2005). Heat transfer characteristics and performance evaluation of a family size deenbandhu biogas plant under low ambient temperature regime. Paper presented in 39th Annual Convention of ISAE held at ANGRAU, Hyderabad
25. **Kundu, K.**, Biswas, R.K., Mondal, P. (2002). Development of Low Cost Manually Operated Drip Irrigation System. Paper presented in 36th Annual Convention of ISAE held at IIT, Kharagpur

### **Paper/ Poster in International Conference:**

1. Karmakar R., Rajor, A., **Kundu, K**, Pandey, R. K. (2015). Production of Economic Algal Biodiesel from Waste Algal Biomass in India. (ABSTRCT NUMBER: 47)Proc.ofThe 5th International Conference on Algal Biomass, Biofuels and Bioproducts. San Diego, USA 2015
2. Karmakar R., **Kundu, K**, Roychowdhury, A. and Chattopadhyay, A. (2013). Optimization of parameters to produce biodiesel from open pond mixed culture algae (ABSTRCT NUMBER: 159). Proc.ofThe 3rd International Conference on Algal Biomass, Biofuels and Bioproducts. Toronto, Canada 2013
3. Karmakar R., Roychowdhury, A, **Kundu, K**. and Chattopadhyay, A. (2012). Optimization of Growth Parameters for Indigenous Algae (ABSTRCT NUMBER: 322). Proc.ofThe 2nd International Conference on Algal Biomass, Biofuels and Bioproducts. San Diego, USA 2012
4. Karmakar R., Roychowdhury, A, **Kundu, K** and Dahake, V. R. (2012). Algal Biodiesel- An Eco-friendly Energy Source. Climate Change International Conference. London, June 8- 12, 2012
5. Karmakar R., Roychowdhury, A, **Kundu, K**. and Chattopadhyay, A. (2012). Biodiesel from INDIGENOUS Mixed Culture Algae (abstract code. 498). The Energy and Materials Research Conference -EMR2012. Torremolinos, Malaga (Spain), 20-22 June 2012
6. Roychowdhury A., Karmakar R., **Kundu, K**. (2012). Optimization of Algal Growth Parameters for Production of Low Cost Algal Biofuel.\* HUDSON-DELAWARE REGIONAL CHAPTER of the SOCIETY OF ENVIRONMENTAL TOXICOLOGY and CHEMISTRY (HDC SETAC) 2012 ANNUAL SPRING MEETING. Montclair State University, Montclair, NJ, April 26-27, 2012



**(Dr. Krishnendu Kundu)**