


NAME	Dr. Manoranjan Nayak	
DESIGNATION	Associate Professor	
EMAIL ID	mnayakbbri@gmail.com; nayakimmt@gmail.com; mnayak@amity.edu	
CONTACT NUMBER	+91-9437-365-531	
MAILING ADDRESS	BioRefinery and BioEnergy Research Laboratory, Centre for Plant and Environmental Biotechnology J-3 Block, Lab # G-08 & LG-15 Amity Institute of Biotechnology (AIB), Amity University Campus, Sector - 125, Noida (Delhi NCR) – 201 313, U.P., INDIA	
RESEARCH INTERESTS	Green Process & Product Development; Microalgal Biorefinery & Bioenergy - Biofuels, Bio-CCS & Waste Valorization; Environmental biotechnology and applied microbiology.	
BIOGRAPHY	<ul style="list-style-type: none"><li>•Dr. Manoranjan Nayak received his Ph.D. degree in Biotechnology from Utkal University, India, in 2014.</li><li>•During his Ph.D., he worked at CSIR-IMMT, India, as a Research Fellow from 2009-2013 and at DBT-ILS, India as a Project Scientist from 2013-2014.</li><li>•Thereafter he worked as a Post-Doctoral Researcher at IIT Kharagpur, India from 2014-2016 and at KAIST, Republic of Korea, from 2016-2019.</li><li>•Then he worked as a Research Professor at IIT Kharagpur from 2019-2021.</li><li>•Currently, he is continuing as an Associate Professor at Amity Institute of Biotechnology (AIB), AUUP, Noida, India, from February 2021.</li><li>•He is pursuing R&amp;D activities in the areas of Energy, Environment, and Health.</li><li>•He has been working on various aspects of the algae biofuel challenge aiming on green process-&amp;-product development, value-added products with concomitant flue-gas carbon-dioxide sequestration and wastewater/ solid waste utilization, bioremediation and valorization in Green-Biorefinery models.</li><li>•He has published numerous high-quality peer-reviewed papers (h-index: 18, i-10 index: 22, and Citation: more than 1300) in the bioenergy and biorefinery area.</li><li>•Currently, 4 doctoral students and several master students are pursuing research under his supervision.</li><li>•He is a recipient of the highly prestigious DBT - Ramalingaswami Re-entry Award, along with other awards like the “Best Poster Award” and “Best Oral Award” from international conferences for his research.</li></ul>	

**EDUCATIONAL QUALIFICATIONS:**

Name of College / University	Degree	Year
CSIR – IMMT / Utkal University	Ph.D. in Biotechnology	2014
North Orissa University	M.Sc. in Biotechnology	2007
Fakir Mohan University	B.Sc. in Botany (Hons.)	2005

**Title of Ph.D. thesis:** Biotechnological approach for biodiesel production from microalgae isolated from eastern region of India

**EXPERIENCE (in chronological order)**

Designation	Type of post held	Name of the Institute	Year (From – To)
Associate Professor	Teaching, Research & Supervisory	Amity Institute of Biotechnology, AUUP, Noida (Delhi NCR), India	September 06, 2024 – Continuing (Till Date)
Assoc. Prof. & RLS Fellow	Teaching, Research & Supervisory	Amity Institute of Biotechnology, AUUP, Noida (Delhi NCR), India	February 23, 2021 – September 05, 2024
RLS Fellow (Res. Asst. Prof)	Research & Supervisory	School of Energy Science and Engineering, IIT Kharagpur, India	September 06, 2019 – February 22, 2021
Post-Doc. Senior Researcher	Research	Adv. Biomass R&D Center & Dept of Chemical and Biomolecular Eng., KAIST, Republic of Korea	August 16, 2016 – August 30, 2019
Post-Doc Res. Assoc.	Research	Department of Biotechnology, IIT Kharagpur, India	February 05, 2014 – August 05, 2016
Project Scientist	Research	Institute of Life Science (DBT), Bhubaneswar, India	November 01, 2013 – February 04, 2014
Research Fellow	Research	Institute of Minerals & Materials Technology (CSIR), India	August 26, 2009 – July 31, 2013
Graduate Assistant	Research	Central Rice Research Institute (ICAR), Cuttack, India	August 22, 2008 – December 31, 2008
DBT-BITP-BCIL Trainee	Research	Juan Biotechnology Pvt. Ltd., Bhubaneswar, India	December 03, 2007 – June 02, 2008

<b>Post-Doc.</b>	<b>1 (completed)</b> ➤ Dr. RK Mohapatra
<b>Ph.D. candidates</b>	<b>5 (Ongoing)</b> ➤ Ms. Diptymayee Padhi (Enrolment No: A0517322001) Education: MSc in Biotechnology, OUAT, Bhubaneswar Research Area: CO <sub>2</sub> sequestration ➤ Ms. Shatakshi Kashyap (Enrolment No: A0517322008) Education: MSc in Microbiology, Central Univ. of Punjab Research Area: Wastewater treatment ➤ Ms. Nisha Das (Enrolment No: A0517322005) Education: MSc in Chemistry, OUAT, Bhubaneswar Research Area: Waste valorization ➤ Ms. Ariba Khan (Enrolment No: A0517324016) Education: MSc in Biotechnology, Sharda Univ., Gr. Noida Research Area: Microalgae yeast co-culture ➤ Ms. Anza (Enrolment No: A0517324014) Education: MSc in Biotechnology, Sharda Univ., Gr. Noida Research Area: Yeast biorefinery
<b>Master candidate (NTCC)</b>	<b>2 (Ongoing)</b> ➤ Mr. Gourang Gupta (2026); Ms Shriya Garg (2026) <b>6 (completed)</b> ➤ Ms. Anannya Chaudhary (2025); Ms. Bhawna (2025); Ms. Anamika Binu (2025) ➤ Ms. Shruti Varshney (2024); Ms. Kanishka Mehta (2024); Ms. Priya Pahuja (2024)
<b>Integrated (NTCC)</b>	<b>10 (Ongoing)</b> ➤ Ms. Shailja Sharma (2026); Mr. Akshat Sharma (2026) ➤ Ms. Unnati Srivastava (2027); Mr. Ayush Pandey (2027) ➤ Ms. Kashish Verma (2028); Mr. Aryan Raj Gupta (2028); Ms. Arshia Sharma (2028); Mr. Aditya Atul (2028) ➤ Mr. Dakshesh Mathpal (2029); Mr. Prajyot Pandey (2029)
<b>Undergraduate (NTCC)</b>	<b>13 (Ongoing)</b> ➤ Ms. Bipasha Kaushik (2026); Ms. Sneha Chauhan (2026) ➤ Mr. Abdul Awal (2026); Ms. Sanchi Gupta (2026) ➤ Ms. Devanshi Gangil (2026) ➤ Ms. Shreya Sharma (2027); Mr. Sidharth Singh (2027) ➤ Ms. Radhika Yadav (2028); Ms. Pooja Yadav (2028); Ms. Nishtha Mohanty (2028); Mr. Yash Jugran (2028); Ms. Sneha (2028); Ms. Astha Kumari (2028) <b>4 (completed)</b> ➤ Ms. Honey Nishad (2025) ➤ Ms. Tanishka Sharma (2024); Ms. Gargi Srivastav (2024) ➤ Ms. Shivangi Ojha (2022)
<b>USRF Researcher</b>	<b>2 (completed)</b> ➤ Ms. Jyotsna Raja; Ms. Paramita Deb

**PUBLICATIONS**  
(40)

**RESEARCH PUBLICATIONS IN PEER-REVIEWED JOURNALS**

Publications details after PhD program

**2025**

- Kashyap S, Velusamy A, Padhi D, Kumar S, **Nayak M\*** (2025) Exploring the effect ..... wastewater treatment. Algal Research, 90, 104117. (IF - 4.8).  
p-ISSN/ e-ISSN No.: 2211-9264  
doi: <https://doi.org/10.1016/j.algal.2025.104117>
- Kashyap S, Das N, Kumar M, Mishra S, Kumar S, Guldhe A, **Nayak M\*** (2025) Poultry litter ..... wastewater treatment. Environmental Science and Pollution Research, 32, 1-14 (IF - 5.8).  
p-ISSN/ e-ISSN No.: 0944-1344 / 1614-7499  
doi: <https://doi.org/10.1007/s11356-025-35900-y>
- Padhi D, Das N, Dineshkumar R, Guldhe A, **Nayak M\*** (2025) Enhanced carbon ..... carbon dioxide supply. BioEnergy Research, 18, 1-14. (IF - 3.1).  
p-ISSN/ e-ISSN No.: 1939-1234 / 1939-1242  
doi: <https://doi.org/10.1007/s12155-024-10802-y>
- Das N, Padhi D, Mandal S, Kumar V, **Nayak M\*** (2024) Performance evaluation ..... cultivation strategy. Biomass Conversion and Biorefinery, 15, 1-12. (IF - 3.7).  
ISSN/ e-ISSN No.: 2190-6815 / 2190-6823  
doi: <https://doi.org/10.1007/s13399-024-06015-0>
- Padhi D, Kashyap S, Mohapatra RK, Dineshkumar R, **Nayak M\*** (2025) Microalgae-based flue gas ..... a review. Environmental Science and Pollution Research, 32, 1-14. (IF - 5.8).  
p-ISSN/ e-ISSN No.: 0944-1344 / 1614-7499  
doi: <https://doi.org/10.1007/s11356-025-35958-8>
- Sharma T, Das N, Mohapatra RK, Kumar M, Pamidimarri S, Singh RK, Guldhe A, Mehta P, **Nayak M\*** (2025) Microalgae as an emerging ..... docosahexaenoic acid (DHA) – A review. Critical Reviews in Food Science and Nutrition, 65, 1-20. (IF - 10.3).  
p-ISSN/ e-ISSN No.: 1040-8398 / 1549-7852  
doi: <https://doi.org/10.1080/10408398.2025.135680>
- Ojha S, Khan A, Sahoo CR, Mohapatra RK, Tripathi DK, Mukherjee M, Guldhe A, **Nayak M\*** (2025) A review on biosynthesis of ..... biomedical applications. BioNanoScience, 15, 1-26 (IF - 3.2).

p-ISSN/ e-ISSN No.: 2191-1630 / 2191-1649  
doi: <https://doi.org/10.1007/s12668-025-01356-8>

- Mohan A, Gurumurthy DM, Iyer VA, Mukherjee TK, Patel VH, Kumar R, Siddiqui N, **Nayak M**, Maurya PK, Kumar P (2025) Dietary flavonoids ..... homeostasis and therapeutics. Food Chemistry. 486, 144674. (IF - 8.5).

p-ISSN/ e-ISSN No.: 0308-8146 / 1873-7072  
doi: <https://doi.org/10.1016/j.foodchem.2025.144674>

- Mohapatra RK, Rath S, **Nayak M**, Parhi PK, Pandey S, Panda CR, Thatoi H, Han Y, Choi Y (2025) Arsenite biosorption ..... modelling-based approach. Journal of Water Process Engineering, 75, 107905. (IF - 6.3).

p-ISSN/ e-ISSN No.: 2214-7144  
doi: <https://doi.org/10.1016/j.jwpe.2025.107905>

- **Nayak M\***, Padhi D, Das N, Kashyap S  
*Title, page number with year:* Recovery of high-value carotenoids from microalgae: Health beneficial metabolites. pp. 69-102 (2025).

*Book title, editor and publisher:* Algal Biorefinery- A Sustainable Solution for Environmental Applications, Mehariya S, Kumar B, Bhatia SK, Karthikeyan OP, and Elsevier.

*Publication Category:* International Publisher/ Chapters in edited book

ISBN (Paperback): 9780443239670; ISBN (eBook): 9780443239663

<https://doi.org/10.1016/B978-0-443-23967-0.00009-7>

## 2024

- Awathare P, Hait S, Gawali S, **Nayak M**, Kumar NR, Guldhe A (2024) Developing biomass ..... for biodiesel production. Bioresource Technology, 403, 130911. (IF - 11.4).

ISSN/ e-ISSN No.: 0960-8524 / 1873-2976  
doi: <https://doi.org/10.1016/j.biortech.2024.130911>

- Mohapatra RK, **Nayak M**, Parhi PK, Pandey S, Thatoi H, Panda CR, Choi Y (2024) Biosorption performance ..... from aqueous solution. International Biodeterioration & Biodegradation, 191, 105811. (IF - 4.8).

ISSN/ e-ISSN No.: 0964-8305 / 1879-0208  
doi: <https://doi.org/10.1016/j.ibiod.2024.105811>

## 2023

- Rawat J, Jaiswal KK, Das N, Kumar S, Gururani P, Bisht

B, Vlaskin MS, **Nayak M**, Kumar V (2023) Hydrothermal liquefaction ..... nanoparticle as a catalyst. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45:4, 12988-13000. (IF – 2.902).

ISSN/ eISSN No.: 1556-7036 / 1556-7230

doi: <https://doi.org/10.1080/15567036.2023.2277892>

- Mohanty R, **Nayak M\***, Sekar T, Thirunavoukkarasu M (2023) Adsorption of selenium ..... greener phytoremediation strategy. Bulletin of Environmental Contamination and Toxicology, 110:54. (IF – 2.807).

ISSN/ eISSN No.: 0007-4861 / 1432-0800

doi: <https://doi.org/10.1007/s00128-023-03694-9>

- Mohapatra RK, **Nayak M**, Panda CR, Thatoi H  
*Title, page number with year:* Estimation of population ..... Paradip Harbour region, Odisha, India. pp. 493-507 (2023).

*Book title, editor and publisher:* Green Technologies for Environmental Management, Biswal AK and Thatoi H and Daya publishing house, New Delhi.

*Publication Category:* National Publisher/ Chapters in edited book

ISBN: 9789354613791

## 2022

- **Nayak M\***, Suh WI, Oh YT, Ryu AJ, Jeong KJ, Kim M, Mohapatra R, Lee B, Chang YK (2022) Directed evolution ..... cell sorting based screening. Fuel, 316: 123410. (IF – 8.035).

ISSN/ eISSN No.: 0016-2361 / 1873-7153

doi: <https://doi.org/10.1016/j.fuel.2022.123410>

- Ray A, **Nayak M\***, Ghosh A (2022) A review on co-culturing ..... biofuel production. Science of the Total Environment, 802: 149765. (IF – 10.753).

ISSN/ eISSN No.: 0048-9697 / 1879-1026

doi: <https://doi.org/10.1016/j.scitotenv.2021.149765>

- Mohapatra RK, Padhi D, Sen R, **Nayak M\*** (2022) Bio-inspired CO<sub>2</sub> capture ..... environmental protection. Bioresource Technology Report, 19: 101116. (Cite Score – 6.3).

ISSN/ eISSN No.: 2589-014X

doi: <https://doi.org/10.1016/j.biteb.2022.101116>

- Kim HS, Kim M, Park W-K, Yang W-G, **Nayak M**, Shin HH, Cho K, Kim D, Oda T (2022) Microalgae as an .....

in aquatic environment. *Energies*, 15: 4467. (IF – 3.252).

ISSN/ eISSN No.: 1996-1073

doi: <https://doi.org/10.3390/en15124467>  
5

- Behera ID, **Nayak M**, Mishra A, Meikap BC, Sen R (2022) Strategic implementation ..... aquatic environment. *Marine Pollution Bulletin*. (IF – 7.001).  
ISSN/ eISSN No.: 0025-326X / 1879-3363  
doi: <https://doi.org/10.1016/j.marpolbul.2022.113492>

## 2021

- Behera ID, **Nayak M**<sup>1</sup>, Biswas S, Meikap BC, Sen R (2021) Enhanced biodegradation ..... bacterial consortium. *Journal of Environmental Management*, 292: 112746. (IF – 8.91).  
ISSN/ eISSN No.: 0301-4797 / 1095-8630  
doi: <https://doi.org/10.1016/j.jenvman.2021.112746>
- Kim M, Kim D, Cho JM, Nam K, Lee H, **Nayak M**, Han JI, OH HM, Chang YK (2021) Hydrodynamic cavitation ..... sustainable *Ettlia* sp. cultivation. *Journal of Environmental Chemical Engineering*, 9: 105411. (IF – 7.968).  
ISSN/ eISSN No.: 2213-2929 / 2213-3437  
doi: <https://doi.org/10.1016/j.jece.2021.105411>

## 2020

- **Nayak M**<sup>\*</sup>, Suh WI, Cho JM, Kim, HS, Lee B, Chang YK (2020) Strategic implementation ...biofuel applications. *Journal of Environmental Management*, 271: 111041. (IF – 8.91).  
ISSN/ eISSN No.: 0301-4797 / 1095-8630  
doi: <https://doi.org/10.1016/j.jenvman.2020.111041>

## 2019

- **Nayak M**, Suh WI, Chang YK, Lee B (2019) Exploration of two-stage ..... in *Chlorella* sp. HS2. *Bioresource Technology*, 276: 110-118. (IF – 11.889).  
ISSN / eISSN No.: 0960-8524 / 1873-2976  
doi: <https://doi.org/10.1016/j.biortech.2018.12.111>
- **Nayak M**, Rashid N, Suh WI, Lee B, Chang YK (2019) Performance evaluation ..... water reusability. *Renewable Energy*, 136: 819-827. (IF – 8.634).  
ISSN / eISSN No.: 0960-1481  
doi: <https://doi.org/10.1016/j.renene.2019.01.050>



- **Nayak M\***, Swain DK, Sen R (2019) Strategic valorization of ..... rice (*Oryza sativa* L.) crop. Science of the Total Environment, 682: 475-484. (IF – 10.753).  
ISSN / eISSN: 0048-9697 / 1879-1026  
doi: <https://doi.org/10.1016/j.scitotenv.2019.05.123>
- Rashid N, **Nayak M**, Lee B, Chang YK (2019) Efficient microalgae ..... growth medium. Journal of cleaner production, 234: 150-156. (IF - 11.072).  
ISSN / eISSN: 0959-6526 / 1879-1786  
doi: <https://doi.org/10.1016/j.jclepro.2019.06.154>
- Rashid N, **Nayak M**, Suh WI, Lee B, Chang YK (2019). Efficient microalgae ..... of organic matter. Environmental Science and Pollution Research, 26: 27396-27406. (IF - 5.19).  
ISSN / eISSN: 0944-1344 / 1614-7499  
doi: <https://doi.org/10.1007/s11356-019-05904-6>

## 2018

- **Nayak M**, Suh WI, Lee B, Chang YK (2018) Enhanced carbon utilization ..... carbon dioxide. Energy Conversion and Management, 156: 45-52. (IF – 11.533).  
ISSN / eISSN: 0196-8904 / 1879-2227  
doi: <https://doi.org/10.1016/j.enconman.2017.11.002>.
- **Nayak M\***, Dhanarajan G, Dineshkumar R, Sen R (2018) Artificial intelligence ..... algal biorefinery. Journal of cleaner production, 201: 1092-1100. (IF – 11.072).  
ISSN / eISSN: 0959-6526 / 1879-1786  
doi: <https://doi.org/10.1016/j.jclepro.2018.08.048>

## 2016

- **Nayak M**, Karemore A, Sen R (2016) Sustainable valorization .....open reactor systems. RSC Advances, 6 (94): 91111-91120. (IF – 4.036).  
ISSN No.: 2046-2069  
doi: <http://dx.doi.org/10.1039/c6ra17899e>
- **Nayak M**, Karemore A, Sen R (2016) Performance evaluation of ..... biofuel application. Algal Research-Biomass Biofuels and Bioproducts. 16: 216-223. (IF – 5.276).  
ISSN No.: 2211-9264  
doi: <http://dx.doi.org/10.1016/j.algal.2016.03.020>.
- Karemore A, **Nayak M**, Sen R (2016) Recent inventions ..... biofuels research. Recent Patents on Biotechnology.



10: 30-42.

ISSN / eISSN: 1872-2083 / 2212-4012

doi:

<http://dx.doi.org/10.2174/1872208310666160830164929>

*Publications details during PhD program*

**2016**

- **Nayak M**, Thirunavoukkarasu M, Mohanty RC (2016) Cultivation of freshwater ..... lipid yield. Journal of General and Applied Microbiology. 62 (1): 7-13 (IF - 1.356).

ISSN / eISSN: 0022-1260 / 1349-8037

doi: <http://dx.doi.org/10.2323/jgam.62.7>.

**2013**

- **Nayak M\***, Rath SS, Thirunavoukkarasu M, Panda PK, Mishra BK, Mohanty RC (2013) Maximizing biomass ..... using sodium hydroxide. Journal of Microbiology and Biotechnology. 23 (9): 1260-1268. (IF - 3.277).

ISSN / eISSN: 1017-7825 / 1738-8872

doi: <http://dx.doi.org/10.4014/jmb.1302.02044>.

- Sukla LB, **Nayak M**, Jena J, Panda HS, Pradhan N, Panda PK, Mishra SK, Das B, Sarika C, Rao BVSK, Prasad RBN, Mishra BK

*Title, page number with year:* Large scale ..... biodiesel production. pp. 79-91 (2013).

*Book title, editor and publisher:* Environmental Technology, Khanna D.R., Chopra A.K., Matta G., Bhutiani R., Singh V. and Daya publishing house, New Delhi.

*Publication Category:* National Publisher/ Chapters in edited book

ISBN: 9788170358237

**2012**

- Jena J, **Nayak M**, Panda HS, Pradhan N, Sarika C, Panda PK, Rao BVSK, Prasad RBN, Sukla LB. (2012) Microalgae of ..... biodiesel production. World Environment. 2 (1): 11-16.

ISSN / eISSN: 2163-1573 / 2163-1581

doi: <http://dx.doi.org/10.5923/j.env.20120201.03>.

**2011**

- **Nayak M**, Jena J, Bhakta S, Rath SS, Sarika C, Rao BVSK, Pradhan N, Thirunavoukkarasu M, Mishra SK,

	<p>Panda PK, Prasad RBN, Sukla LB, Mishra BK (2011) Screening of ..... biodiesel production. International Journal of Green Energy. 8 (6): 669-683. (IF – 3.206). ISSN / eISSN: 1543-5075 / 1543-5083 doi: <a href="http://dx.doi.org/10.1080/15435075.2011.588764">http://dx.doi.org/10.1080/15435075.2011.588764</a></p> <ul style="list-style-type: none"> <li>• Panda HS, <b>Nayak M</b>, Das B, Parida BK, Jena J, Bhakta S, Panda S, Panda PK, Sukla LB (2011) Survey and documentation ..... east coast region of Odisha, India. World Environment.1 (1): 20-23. ISSN / eISSN: 2163-1573 / 2163-1581 doi: <a href="http://dx.doi.org/10.5923/j.env.20110101.04">http://dx.doi.org/10.5923/j.env.20110101.04</a>.</li> <li>• Bhakta S, Das SK, <b>Nayak M</b>, Jena J, Panda PK, Sukla LB (2011) Phyco-diversity assessment ..... coast of Odisha, India. Recent Research in Science and Technology. 3 (4): 80-89. ISSN No.: 2076-5061 <a href="https://updatepublishing.com/journal/index.php/rrst/article/view/668">https://updatepublishing.com/journal/index.php/rrst/article/view/668</a></li> </ul>
<p><b>ACADEMIC SEMINAR/ CONFERENCE PRESENTATIONS (38)</b></p>	<p><b>ACADEMIC SEMINAR/ CONFERENCE PRESENTATIONS</b></p> <ol style="list-style-type: none"> <li>1. <b>Nayak M*</b>. Title of the Paper Presented: Sustainable circular economy ..... waste-to-wealth approach. Name of conference/ seminar: International Symposium &amp; Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”. Type: Oral presentation Date of the Event: January 06–08, 2025. Organised by and venue: Amity Institute of Biotechnology, AUUP, Noida in association with University of Nottingham UK. Level of Organization: International (within the country)</li> <li>2. <b>Nayak M*</b>. Title of the Paper Presented: A greener approach ..... microalgal technology. Name of conference/ seminar: Revealing a New Paradigm of Biology in the 21st Century: A Cellular and Molecular Approach. Type: Oral presentation Date of the Event: April 08–09, 2021. Organised by and venue: Amity University Uttar Pradesh (Online: Live and On-demand). Level of Organization: International (within country)</li> </ol>

	<p>3. <b>Nayak M*</b>.  <i>Title of the Paper Presented:</i> Application of ..... for biodiesel production.  <i>Name of conference/ seminar:</i> 5th Green and Sustainable Chemistry Conference.  <i>Type:</i> Poster presentation  <i>Date of the Event:</i> November 10–11, 2020.  <i>Organised by and venue:</i> Elsevier (Online: Live and On-demand).  <i>Level of Organization:</i> International (abroad)</p> <p>4. <b>Nayak M*</b>, Lee B, Chang YK.  <i>Title of the Paper Presented:</i> Optimizing carbon ..... of <i>Chlorella</i> sp. HS2.  <i>Name of conference/ seminar:</i> KMB 2019, 46th Annual Meeting &amp; International Symposium.  <i>Type:</i> Poster presentation  <i>Date of the Event:</i> June 23–25, 2019.  <i>Organised by and venue:</i> The Korean Society for Microbiology and Biotechnology (at ICC JEJU, South Korea).  <i>Level of Organization:</i> International (abroad)</p> <p>5. <b>Nayak M*</b>, Rashid N, Suh WI, Lee B, Chang YK.  <i>Title of the Paper Presented:</i> Evaluation of different ..... carbon condition.  <i>Name of conference/ seminar:</i> 2nd International conference on “Bioresource Technology for Bioenergy, Bioproducts &amp; Environmental Sustainability”.  <i>Type:</i> Poster presentation  <i>Date of the Event:</i> September 16–19, 2018.  <i>Organised by and venue:</i> Elsevier (at Sitges, Spain).  <i>Level of Organization:</i> International (abroad)</p> <p>6. <b>Nayak M*</b>, Sen R.  <i>Title of the Paper Presented:</i> Microalgae cultivation ..... biomass production.  <i>Name of conference/ seminar:</i> Bioprocessing INDIA.  <i>Type:</i> Oral presentation  <i>Date of the Event:</i> December 17–20, 2014.  <i>Organised by and venue:</i> Institute of Chemical Technology and Indian Institute of Technology Bombay, Mumbai, India.  <i>Level of Organization:</i> National</p> <p>7. <b>Nayak M*</b>, Jena J, Thirunavoukkarasu M, Pradhan N, Panda PK, Sukla LB, Mishra BK, Mohanty RC.  <i>Title of the Paper Presented:</i> Mass cultivation .....</p>
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	<p>biodiesel production.</p> <p><i>Name of conference/ seminar:</i> International Conference on “Microbial World: Recent Innovations and Future Trends”.</p> <p><i>Type:</i> Poster presentation</p> <p><i>Date of the Event:</i> November 22–25, 2012.</p> <p><i>Organised by and venue:</i> KIIT University, Bhubaneswar, India.</p> <p><i>Level of Organization:</i> International (within country)</p>
	<p>8. <b>Nayak M*</b>, Mohanty RC, Sukla LB.</p> <p><i>Title of the Paper Presented:</i> Scale-up and design ..... biodiesel production.</p> <p><i>Name of conference/ seminar:</i> National Seminar on Global warming: from facts and figures to cause &amp; cures.</p> <p><i>Type:</i> Oral presentation</p> <p><i>Date of the Event:</i> November 20–21, 2011.</p> <p><i>Organised by and venue:</i> Chitalo Mohavidyalaya, Jajpur, Odisha, India.</p> <p><i>Level of Organization:</i> National</p>
	<p>9. <b>Nayak M*</b>, Jena J, Sukla LB, Panda PK, Sarika C, Rao BVSK, Prasad RBN.</p> <p><i>Title of the Paper Presented:</i> Carbon dioxide ..... microalgae <i>Scenedesmus obliques</i>.</p> <p><i>Name of conference/ seminar:</i> International Conference on “Innovations in Oils, Fats &amp; Allied Products towards Sustainability” &amp; “Lipids Expo-2011”.</p> <p><i>Type:</i> Poster presentation</p> <p><i>Date of the Event:</i> November 18–19, 2011.</p> <p><i>Organised by and venue:</i> Oil Technologists Association of India, Southern Zone (at Indian Institute of Chemical Technology, Hyderabad, India).</p> <p><i>Level of Organization:</i> International (within country)</p>
	<p>10. Sukla LB, <b>Nayak M*</b>, Jena J, Pradhan N, Panda PK, Mishra SK, Das B, Sarika C, Rao BVSK, Prasad RBN, Mishra BK.</p> <p><i>Title of the Paper Presented:</i> Large scale ..... biodiesel production.</p> <p><i>Name of conference/ seminar:</i> World congress for man and nature: global climate change &amp; biodiversity conservation.</p> <p><i>Type:</i> Oral presentation</p> <p><i>Date of the Event:</i> November 11–13, 2011.</p> <p><i>Organised by and venue:</i> Gurukula Kangri Vishwavidyalaya, Haridwar, India.</p> <p><i>Level of Organization:</i> National</p>

11. **Nayak M\***, Jena J, Bhakta S, Das B, Pradhan N, Panda PK, Sukla LB.

*Title of the Paper Presented:* Microalgae as ..... biodiesel production.

*Name of conference/ seminar:* National Conference on “New frontiers in life sciences”.

*Type:* Oral presentation

*Date of the Event:* December 09-11, 2010.

*Organised by and venue:* Indian Science Congress Association: Bhubaneswar Chapter and Indian Society of Life Sciences (at Regional Museum of Natural History, Bhubaneswar, India).

*Level of Organization:* National

12. **Nayak M\***, Jena J, Ratha SK, Majhi K, Mishra N, Behera SK, Pradhan N, Subudhi U, Panda PK, Mishra SK, Thirunavoukkarasu M, Adhikary SP, Sukla LB, Mishra BK.

*Title of the Paper Presented:* Screening of microalgae ..... for biodiesel.

*Name of conference/ seminar:* International Symposium on Phycological Research.

*Type:* Poster presentation

*Date of the Event:* February 25-27, 2010.

*Organised by and venue:* Banaras Hindu University, Varanasi, India.

*Level of Organization:* International (within country)

13. **Nayak M\***, Sukla LB.

*Title of the Paper Presented:* Pilot scale ..... raceway pond.

*Name of conference/ seminar:* Research scholar day.

*Type:* Poster presentation

*Date of the Event:* January 25, 2011.

*Organised by and venue:* IMMT Bhubaneswar, India

*Level of Organization:* National

### ***Contribution of BBRL***

14. Das N, Padhi D, **Nayak M\***.

*Title of the Paper Presented:* Strategic semicontinuous cultivation to maximize microalgal biomass and lipid production.

*Name of conference/ seminar:* International Symposium & Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.

*Type:* Poster presentation

*Date of the Event:* January 06–08, 2025.

*Organized by and venue:* Amity Institute of

Biotechnology, AUUP, Noida in association with  
University of Nottingham UK  
*Level of Organization:* International (within country)

15. Padhi D, Das N, **Nayak M\***.

*Title of the Paper Presented:* Implementing a chemical-based scavenger for enhancing dissolved inorganic carbon for microalgae biomass growth and carbon sequestration crude glycerol into biofuels and high-value products: A sustainable waste to wealth approach.

*Name of conference/ seminar:* International Symposium & Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.

*Type:* Poster presentation

*Date of the Event:* January 06–08, 2025.

*Organized by and venue:* Amity Institute of Biotechnology, AUUP, Noida in association with University of Nottingham UK

*Level of Organization:* International (within country)

16. Kashyap S, **Nayak M\***.

*Title of the Paper Presented:* Poultry litter extract as a solid waste supplement for enhanced microalgal biomass production and wastewater treatment.

*Name of conference/ seminar:* International Symposium & Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.

*Type:* Poster presentation

*Date of the Event:* January 06–08, 2025.

*Organized by and venue:* Amity Institute of Biotechnology, AUUP, Noida in association with University of Nottingham UK

*Level of Organization:* International (within country)

17. Khan A, Kashyap S, Kumar P, **Nayak M\***.

*Title of the Paper Presented:* Microalgae-yeast co-culture: A sustainable circular economy and zero-waste approach.

*Name of conference/ seminar:* International Symposium & Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.

*Type:* Poster presentation

*Date of the Event:* January 06–08, 2025.

*Organized by and venue:* Amity Institute of Biotechnology, AUUP, Noida in association with University of Nottingham UK

*Level of Organization:* International (within country)

18. Sharma S, Sharma A, **Nayak M\***.

*Title of the Paper Presented:* Transforming crude glycerol ..... to wealth approach.

*Name of conference/ seminar:* International Symposium & Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.

*Type:* Poster presentation

*Date of the Event:* January 6–8, 2025.

*Organised by and venue:* Amity Institute of Biotechnology, AUUP, Noida in association with University of Nottingham UK.

*Level of Organization:* International (within country)

19. Padhi D, Das N, **Nayak M.**

*Title of the Paper Presented:* Enhanced DIC for CO<sub>2</sub> biofixation and lipid production in *Chlorella* sp. BRE5 through combined NaOH and strategic carbon dioxide supply.

*Name of conference/ seminar:* 2<sup>nd</sup> International Symposium on “Advances in Algal Research (AAR 2024)”.

*Type:* Poster presentation

*Date of the Event:* December 17–18, 2024.

*Organized by and venue:* Jointly hosted by IIT Guwahati & JNTUH. Jawaharlal Nehru Technological University (JNTUH), Hyderabad, India

*Level of Organization:* International (within country)

20. Kashyap S, **Nayak M.**

*Title of the Paper Presented:* Influence of agricultural fertilizer and glycerol under different trophic modes of *Chlorella* sp. BRE4 cultivation for wastewater treatment and biomass production.

*Name of conference/ seminar:* 2<sup>nd</sup> International Symposium on “Advances in Algal Research (AAR 2024)”.

*Type:* Poster presentation

*Date of the Event:* December 17–18, 2024.

*Organized by and venue:* Jointly hosted by IIT Guwahati & JNTUH. Jawaharlal Nehru Technological University (JNTUH), Hyderabad, India

*Level of Organization:* International (within country)

21. Das N, Padhi D, **Nayak M.**

*Title of the Paper Presented:* Implementing semi-continuous cultivation strategy for enhanced biomass and lipid production performance of indigenous microalga *Chlorella sorokiniana*.

*Name of conference/ seminar:* 2<sup>nd</sup> International Symposium on “Advances in Algal Research (AAR 2024)”.

*Type:* Poster presentation

*Date of the Event:* December 17–18, 2024.

*Organized by and venue:* Jointly hosted by IIT Guwahati & JNTUH. Jawaharlal Nehru Technological University (JNTUH), Hyderabad, India

*Level of Organization:* International (within country)

22. Padhi D, Das N, **Nayak M.**

*Title of the Paper Presented:* Enhanced lipid production



and CO<sub>2</sub> biofixation by *Chlorella sorokiniana* with combined sodium hydroxide and carbon dioxide supply.  
*Name of conference/ seminar:* International Conference on “Innovations in Biotechnology for Sustainability (IBS 2024)”.

*Type:* Rapid oral & Poster presentation

*Date of the Event:* November 23–25, 2024.

*Organized by and venue:* Jointly organized by the Jawaharlal Nehru University, New Delhi and the Biotech Research Society, India. New Delhi, India

*Level of Organization:* International (within country)

23. Das N, Padhi D, **Nayak M.**

*Title of the Paper Presented:* Semi-continuous cultivation strategy of indigenous microalga *Chlorella sorokiniana* BRE5 for enhanced biomass and lipid production.

*Name of conference/ seminar:* International Conference on “Innovations in Biotechnology for Sustainability (IBS 2024)”.

*Type:* Rapid oral & Poster presentation

*Date of the Event:* November 23–25, 2024.

*Organized by and venue:* Jointly organized by the Jawaharlal Nehru University, New Delhi and the Biotech Research Society, India. New Delhi, India

*Level of Organization:* International (within country)

24. Kashyap S, Das N, **Nayak M.**

*Title of the Paper Presented:* Enhancing microalgal biomass for production of lipid, carbohydrate, and protein using cocktail waste media: A greener approach for simultaneous waste valorization and biofuel production.

*Name of conference/ seminar:* International Conference on “Innovations in Biotechnology for Sustainability (IBS 2024)”.

*Type:* Rapid oral & Poster presentation

*Date of the Event:* November 23–25, 2024.

*Organized by and venue:* Jointly organized by Jawaharlal Nehru University, New Delhi and the Biotech Research Society, India. New Delhi, India

*Level of Organization:* International (within country)

25. Padhi D, **Nayak M\***.

*Title of the Paper Presented:* Microalgae-based carbon ..... cleaner environment.

*Name of conference/ seminar:* International Conference on “Advances in Energy and Environment for Sustainable Development (AEESD-2022)”.

*Date of the Event:* January 7–8, 2022.

*Organised by and venue:* Siksha ‘O’ Anusandhan (Deemed to be University), Bhubaneswar, India and NIT Meghalaya, India. In Virtual Platform.

*Level of Organization:* International (within country)

26. Kashyap S, **Nayak M\***.

*Title of the Paper Presented:* Advanced wastewater ..... biofuel production.

*Name of conference/ seminar:* International Conference on “Advances in Energy and Environment for Sustainable Development (AEESD-2022)”.

*Date of the Event:* January 07–08, 2022.

*Organised by and venue:* Siksha ‘O’ Anusandhan (Deemed to be University), Bhubaneswar, India and NIT Meghalaya, India. In Virtual Platform.

*Level of Organization:* International (within country)

27. Mohapatra RK, **Nayak M**, Thatoi H, Panda CR.

*Title of the Paper Presented:* Performance evaluation ..... of toxic As(III) ions.

*Name of conference/ seminar:* 7th International Conference on Environment and Ecology (ICEE) on “Make India clean as well as cleaning up technologies”.

*Date of the Event:* November 26-28, 2021.

*Organised by and venue:* International Foundation for Environment and Ecology Kolkata. Virtual Platform – Google Meet.

*Level of Organization:* International (within country)

28. Padhi D, **Nayak M\***.

*Title of the Paper Presented:* Bio-inspired flue ..... research perspectives.

*Name of conference/ seminar:* International Symposium of Biotechnology and Biochemical Engineering (ISBBE-2021) on “Waste Management and Innovation for Valorization: Enroute a Sustainable World and Future”.

*Date of the Event:* October 26–27, 2021.

*Organised by and venue:* Amity Institute of Biotechnology (Centre for Biotechnology & Biochemical Engineering), AUUP, Noida and Amity University Kolkata. Virtual Platform.

*Level of Organization:* International (within country)

29. Kashyap S, **Nayak M\***.

*Title of the Paper Presented:* A biorefinery approach ..... biofuel production.

*Name of conference/ seminar:* International Symposium of Biotechnology and Biochemical Engineering (ISBBE-2021) on “Waste Management and Innovation for Valorization: Enroute a Sustainable World and Future”.

*Date of the Event:* October 26–27, 2021.

*Organised by and venue:* Amity Institute of Biotechnology

(Centre for Biotechnology & Biochemical Engineering), AUUP, Noida and Amity University Kolkata. Virtual Platform.

Level of Organization: International (within country)

30. Mohapatra RK, **Nayak M**, Thatoi H, Panda CR.

*Title of the Paper Presented:* Effective bioremoval ..... Paradip Port, India.

*Name of conference/ seminar:* International Symposium of Biotechnology and Biochemical Engineering (ISBBE-2021) on “Waste Management and Innovation for Valorization: Enroute a Sustainable World and Future”.

*Date of the Event:* October 26-27, 2021.

*Organised by and venue:* Amity Institute of Biotechnology (Centre for Biotechnology & Biochemical Engineering), AUUP, Noida and Amity University Kolkata. Virtual Platform.

*Level of Organization:* International (within country)

***My contribution in other's presentations***

31. Oh YT, **Nayak M**, Lee B.

*Title of the Paper Presented:* Enhancement of the lipid accumulation of *Chlorella* sp. HS2 by EMS-induced mutation in conjunction with FACS-based high throughput screening.

*Name of conference/ seminar:* International Meeting of the Microbiological Society of Korea.

*Date of the Event:* August 25–27, 2021.

*Organised by and venue:* The Microbiological Society of Korea. CECO, Changwon, Korea.

*Level of Organization:* International (abroad)

32. Rashid N, **Nayak M**, Lee B, Chang YK.

*Title of the Paper Presented:* Efficient microalgae ..... organic matter.

*Name of conference/ seminar:* 2nd International conference on “Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability”.

*Date of the Event:* September 16–19, 2018.

*Organised by and venue:* Sitges, Spain.

*Level of Organization:* International (abroad)

33. Jena J, **Nayak M**, Panda HS, Pradhan N, Sukla LB.

*Title of the Paper Presented:* Effect of nitrogen ..... biodiesel production.

*Name of conference/ seminar:* International Conference on “Microbial World: Recent Innovations and Future Trends”.

*Date of the Event:* November 22–25, 2012.

*Organised by and venue:* KIIT University, Bhubaneswar, India.

*Level of Organization:* International (within country)

34. Jena J, **Nayak M**, Pradhan N, Panda PK, Sukla LB.

*Title of the Paper Presented:* Lab scale to ..... biodiesel production: an approach.

*Name of conference/ seminar:* National Seminar on Living system in

post genomic era.

*Date of the Event:* December 20-21, 2011.

*Organised by and venue:* Fakir Mohan University, Balasore, India.

*Level of Organization:* National

35. Jena J, **Nayak M**, Bhakta S, Das B, Nayak RR, Pradhan N, Subudhi U, Panda PK, Mishra SK, Adhikary SP, Sukla LB, Mishra BK.

*Title of the Paper Presented:* Utilization of microalgae ..... CO<sub>2</sub> fixation.

*Name of conference/ seminar:* International Symposium on “Recent Advances in Cross-disciplinary Microbiology: Avenues & Challenges”.

*Date of the Event:* December 14–17, 2010.

*Organised by and venue:* Ranchi, India (Attended).

*Level of Organization:* International (within country)

36. Bhakta S, **Nayak M**, Jena J, Pradhan N, Subudhi U, Panda PK, Sukla LB.

*Title of the Paper Presented:* Diversity of algae ..... areas of Orissa.

*Name of conference/ seminar:* National Conference on “New Frontiers in Life Sciences & 13th Orissa Bigyan Congress”.

*Date of the Event:* December 09-11, 2010.

*Organised by and venue:* Indian Science Congress Association: Bhubaneswar Chapter and Indian Society of Life Sciences (at Regional Museum of Natural History, Bhubaneswar, India).

*Level of Organization:* National

37. Das B, **Nayak M**, Bhakta S, Jena J, Nayak RR, Subudhi U, Pradhan N, Mishra SK, Panda PK, Sukla LB.

*Title of the Paper Presented:* Raceway Pond ..... algae cultivation.

*Name of conference/ seminar:* National Conference on “New Frontiers in Life Sciences & 13th Orissa Bigyan Congress”.

*Date of the Event:* December 09-11, 2010.

*Organised by and venue:* Indian Science Congress Association: Bhubaneswar Chapter and Indian Society of Life Sciences (at Regional Museum of Natural History, Bhubaneswar, India).

*Level of Organization:* National

38. Ratha SK, Jena J, **Nayak M**, Mishra N, Pradhan N, Sukla LB, Panda PK, Thirunavoukkarasu M, Adhikary SP, Mishra BK.

*Title of the Paper Presented:* Screening and lipid ..... source of biofuel.

*Name of conference/ seminar:* International conference on “Algal Biotechnology in the Asia-Pacific Region: New challenges and Opportunities for the 21st Century”.

*Date of the Event:* December 1-4, 2009.

*Organised by and venue:* New Delhi, India.

*Level of Organization:* International (within country)

### **Conference attend:**

1. Participated in Science 20 Conference on the theme of "Disruptive Science for Innovation and Sustainable Development" under the aegis of G20, Organized by ‘AUUP, Noida’ on September 04-05, 2023.
2. Participated (and appreciated) in the "International Symposium on Revolutionizing Medicinal Imaging with Computer Vision and Artificial Intelligence", Organized by AIB, AUUP, Noida in association with Indiana University – Purdue University Indianapolis,

	<p>IUPUI, USA on August 22-25, 2023 at AUUP, India. (Role: Member of the organizing committee).</p> <ol style="list-style-type: none"> <li>Attend Sci-ROI's 7th Annual Event 2022 on the theme of "Science and Research Opportunities in India" Organized by 'Sci-ROI Global' on September 24-25, 2022. Virtual platform.</li> <li>Attend India's Largest Online Innovation Conference "the Second Edition of Turnip Innovation Festival (TIF)", on the theme of "Intellectual Property and Climate Change" Organized by 'Turnip Innovations' jointly with 'DPIIT IPR Chair Andhra University' on January 22, 2022. Virtual platform.</li> <li>International Symposium of Biotechnology and Biochemical Engineering (ISBBE-2021) on "Waste Management and Innovation for Valorization: Enroute a Sustainable World and Future". October 26-27, 2021. Amity Institute of Biotechnology (Centre for Biotechnology &amp; Biochemical Engineering), AUUP, Noida and Amity University Kolkata. Virtual Platform.</li> <li>Global Bio-India 2021. Transforming Lives. Biosciences to Bioeconomy. Organised by BIRAC – Biotechnology Industry Research Assistance Council and DBT, Govt. of India. March 01-03, 2021. Digital Platform.</li> <li>V International Conference on Sustainable Energy and Environmental Challenges (V SEEC). Organized by International Society for Energy, Environment and Sustainability. December 19-21, 2020. Virtual mode Zoom.</li> <li>KMB 2018, 45th Annual Meeting &amp; International Symposium. Organized by The Korean Society for Microbiology and Biotechnology. June 27-29, 2018. Yeosu EXPO Convention Center, South Korea.</li> <li>KSBB Fall Meeting and International Symposium, Gwangju, South Korea. October 13, 2016.</li> </ol>
<p><b>RESEARCH PROJECTS</b> Completed: (1)</p>	<p><u>Ramalingaswami Re-entry Fellowship funded research project</u>  <i>Title:</i> An integrated biorefinery ..... flue gas CO<sub>2</sub> fixation  <i>Funding Agency:</i> Department of Biotechnology (DBT), Govt. of India., New Delhi  <i>Amount (Rs. In Lakhs):</i> 113.6  <i>Duration:</i> 5 Years From 06-09-2019 to 05-09-2019)  <i>Role:</i> Solo PI</p>
<p><b>AWARDS &amp; HONOURS/ DISTINCTIONS</b></p>	<ul style="list-style-type: none"> <li>Awarded with a highly prestigious <b><i>Ramalingaswami Fellowship</i></b> by Department of Biotechnology, Ministry of Science &amp; Technology, Government of India on 17-05-2019.</li> <li>Awarded the "<b><i>Best Oral Presentation Award</i></b>" at the International Conference on "Revealing a new paradigm of Biology in the 21st century: A Cellular and Molecular approach" organized by "AIB, AUUP, Noida" at Online</li> </ul>

	<p>mode during 8th - 9th April 2021.</p> <ul style="list-style-type: none"> <li>• Awarded the “<b>Best Poster Award</b>” at the International Conference on Innovations in Oils, Fats &amp; Allied Products towards Sustainability &amp; Lipids Expo-2011 organized by “Oil Technologists Association of India, Southern Zone” at IICT, Hyderabad during 18th – 19th November 2011.</li> <li>• Postdoctoral research funded by the Ministry of Science, ICT and Future Planning, Republic of Korea</li> <li>• Postdoctoral research funded by the Department of Science &amp; Technology (DST), Government of India.</li> <li>• Ph.D. research funded by the Department of Biotechnology (DBT) New Delhi, Govt. of India.</li> <li>• Qualified All India level Graduate Aptitude Test for Engineers (GATE-2009 Life Sciences &amp; GATE-2010-Biotechnology).</li> <li>• Most cited algal research articles entitled: “Performance evaluation of microalgae for concomitant wastewater bioremediation, CO<sub>2</sub> biofixation and lipid biosynthesis for biodiesel application”, published in Algal Research, 16, 216-223, 2016, authored by: M. Nayak, A. Karemore, and R. Sen.</li> </ul> <p><b>Award by my PhD Scholar</b></p> <ul style="list-style-type: none"> <li>• Ms. Diptymayee Padhi: Awarded with the “<b>Best Poster Presentation Award</b>” at the 2nd International Symposium on “Advances in Algal Research (AAR 2024).</li> <li>• Ms. Nisha Das: Awarded with the “<b>Best Poster Presentation Award</b>” at the International Symposium &amp; Workshop on “Advancing Sustainability Through the Circular Economy: Turning Waste to Wealth”.</li> </ul>
<p><b>PROFESSIONAL SERVICE</b></p>	<p><b>Editorial Board Member</b></p> <ul style="list-style-type: none"> <li>• International Journal of Energy and Environmental Science (IJEES) ISSN/ eISSN No.: 2578-9538 / 2578-9546 <a href="http://www.sciencepublishinggroup.com/j/ijeess">http://www.sciencepublishinggroup.com/j/ijeess</a></li> <li>• Open Access Journal of Waste Management &amp; Xenobiotics (OAJWX) ISSN/ eISSN No.: 2640-2718 <a href="https://medwinpublishers.com/OAJWX/editorial-board.php">https://medwinpublishers.com/OAJWX/editorial-board.php</a></li> </ul>



	<p><b><i>Peer Review Activities</i></b></p> <p>Journal of Environmental Management – Elsevier (5 reviews)</p> <p>Renewable Energy – Elsevier (4 reviews)</p> <p>Energy Conversion and Management – Elsevier (2 reviews)</p> <p>Science of the Total Environment – Elsevier (2 reviews)</p> <p>Environmental Research – Elsevier (2 reviews)</p> <p>Journal of Water Process Engineering – Elsevier</p> <p>Regional Studies in Marine Science – Elsevier</p> <p>Algal Research - Elsevier</p> <p>Biomass Conversion and Biorefinery-Springer</p> <p>Environmental Science and Pollution Research – Springer</p> <p>Scientific Report - Springer Nature</p> <p>International Journal of Energy Research – Wiley</p> <p>Journal of Chemical Technology &amp; Biotechnology – Wiley</p> <p>Journal of Applied Microbiology – Willi</p> <p>Bioremediation Journal – T&amp;F</p> <p>Preparative Biochemistry and Biotechnology – T&amp;F</p> <p>Critical Reviews in Environmental Science and Technology – T&amp;F</p> <p>Biotechnology for Biofuels – BioMed-central</p> <p>Frontiers in Bioengineering and Biotechnology – Frontier</p>
<b>Web contact</b>	<p><a href="https://www.amity.edu/">https://www.amity.edu/</a></p> <p><a href="https://www.amity.edu/aib/Faculty_Plant.asp">https://www.amity.edu/aib/Faculty_Plant.asp</a></p> <p><a href="http://auup.amity.edu/faculty-detail.aspx?facultyID=27593">http://auup.amity.edu/faculty-detail.aspx?facultyID=27593</a></p> <p><a href="http://auup.amity.edu/faculty_list_new.aspx?InstituteId=6">http://auup.amity.edu/faculty_list_new.aspx?InstituteId=6</a></p> <p><a href="https://www.amity.edu/aib/Faculty/Resumes/Manoranjan-Nayak.pdf">https://www.amity.edu/aib/Faculty/Resumes/Manoranjan-Nayak.pdf</a></p>
<b>BioRefinery &amp; BioEnergy Research Laboratory (BBRL) R&amp;D Brief</b>	<p>The BioRefinery &amp; BioEnergy Research Laboratory (BBRL), led by Dr. Manoranjan Nayak, is dedicated to pioneering a sustainable microalgae-based biorefinery model. This research focuses on the synergistic integration of wastewater valorization and carbon dioxide sequestration to maximize biomass productivity and enable the production of high-value biofuels and bioproducts. As next-generation bioenergy feedstocks, microalgae offer a unique dual functionality: they can remediate nutrient-rich wastewater while utilizing industrial flue gases as a carbon source. This zero-waste capability positions microalgae as a key component in sustainable environmental technologies, simultaneously reducing pollution and lowering biomass cultivation costs.</p> <p>Within Dr. Nayak's lab, innovative cultivation strategies are developed to optimize lipid accumulation and stimulate the synthesis of high-value metabolites such as polyunsaturated fatty acids, pigments, and bioactive compounds. Operating</p>



	<p>within a “waste-to-wealth” framework, the research transforms environmental pollutants - such as wastewater and CO<sub>2</sub> emissions - into valuable bioresources. The harvested microalgal biomass is processed through an integrated biorefinery system to yield a diverse array of sustainable products, including biofuels, nutraceuticals, and specialty chemicals.</p> <p>This holistic approach supports the foundational goals of the bio-circular-green economy by promoting resource recovery, climate change mitigation, and energy security. By enabling closed-loop, regenerative systems, Dr. Nayak’s work highlights the transformative potential of microalgae-based technologies in driving a sustainable and economically viable green future.</p> <p>Keywords: Microalgae biorefinery; Carbon sequestration; Wastewater valorization; Biofuels; Bioproducts; Waste-to-wealth; Zero-waste; Bio-circular-green economy.</p>
<p><b>Research opportunity in BBRL</b></p>	<p><b><u>PhD/Project Position</u></b></p> <p>Positions are available for JRF, PhD and Master Projects in the area of Biomass, Biorefinery, Bioenergy, Wastewater Treatment and CO<sub>2</sub> sequestration. Looking for hard-working, bright, and enthusiastic postgraduate students with strong backgrounds in biotechnology, microbiology, biochemistry, or biochemical engineering.</p> <p>We are delighted to announce that Amity University Uttar Pradesh, Noida is introducing the ARF - Amity Research Fellowship, offering a monthly stipend of ₹37,000 for PhD students. Candidates with their own fellowship arrangements from funding agencies like UGC, CSIR, DBT, DST, INSPIRE, etc. are encouraged to apply for PhD. These candidates will get ARF as additional money.</p> <p>Interested candidates may drop me their resume with a cover letter at my e-mail address (<a href="mailto:mnayak@amity.edu">mnayak@amity.edu</a>; <a href="mailto:nayakimmt@gmail.com">nayakimmt@gmail.com</a>; <a href="mailto:mnayakbbri@gmail.com">mnayakbbri@gmail.com</a>).</p> <p><b><u>Post-Doctoral Position</u></b></p> <p>Candidates having their own fellowships (N-PDF, DST-Young Scientist, CSIR-RA, DBT-RA, ICAR-RA, UGC Post-doc, Women-Scientist Award, etc.) are always welcome to join the research group as post-Doc Fellow.</p>