Dr. Saprativ P. Das

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Biotechnology/ Research/ Teaching/ Industry

SNAPSHOT : Dynamic and outcome-oriented **Ph.D. (Biotechnology)** professional backed by **11 years** of insightful **Research & Teaching experience** distinguished by commended performance and proven results; Extensive techno-managerial experience in the areas of **Biotechnology** with focus on delivering effective solutions

Proactive decision maker, target challenging, seeking senior assignments with a well-established and globally reputed organization, bringing the following transferable strengths:

Bioprocess Engineering	**Enzyme Technology**	**Fermentation Technology**
Biofuels & Bioenergy	**Microbiology**	**Molecular Biology**
Bioreactor Design	**Industrial Biotechnology**	**Bio – Intellectual property rights (IPR)**

- Accomplished educator with ability to teach, motivate and direct students while maintaining high interest and achievement
- Independently designs, executes, analyzes and troubleshoots their experiments that include techniques used in Biotechnology
- Well updated on changes, research & advances with sound know-how of Biological databases & Bioinformatics tools
- Research Aptitude backed with flair for information mining and analytical mindset to present information to enable critical decision making
- Sound relationship building, communication, interpersonal and time management skills combined with research and scientific paper writing skills

Research Experience

- PhD on "Lignocellulosic ethanol production from wild grass & water hyacinth involving recombinant *Clostridium thermocellum* cellulase and hemicellulase" (Jul '09 – Dec '13)
- Post-doctoral research on "Harvesting of microalgae for biodiesel production" (Jan'15 - Mar'15)
- Post-doctoral research on 'Chemometric method development by FT-NIR for online monitoring of biological metabolites (*viz.,* glucose and ethanol in a fed-batch fermentation process)' (a collaborative work between IITB and Reliance Industries Limited, Mumbai) (Apr'15 – Jun'18)

Professional Experience

Role	Organization	Duration
Senior Scientist	Sardar Patel Renewable Energy Research Institute, Gujarat	Nov'22 – Jul'24
Associate Patent Attorney	D. P. Ahuja & Co. (a Corporate organization), Kolkata	Aug' 20 – Oct'22
Assistant Professor	Brainware University, Kolkata	Aug' 18 – Apr'20
Post-doctoral RA (Project Research Engineer)	Indian Institute of Technology Bombay, Mumbai	Apr '15 – Jun'18
Project Scientist	National Institute of Ocean Technology, Chennai	Jan'15 - Mar'15
Adhoc Faculty	National Institute of Technology Warangal, Telangana state	Jul'14 - Dec'14
Project Research Assistant	National Institute of Ocean Technology, Chennai	Jan'14 - Jun'14
Lecturer	Anna University, Chennai	Jun'08 - May'09

Credentials

Professional:

- **Ph.D. (Biotechnology)** from Indian Institute of Technology Guwahati, Assam in 2014 with 8.25 CPI
- **M. Tech (Industrial Biotechnology)** from Bharath University, Chennai in 2008 with 8.99 CGPA
- **B. Tech (Biotechnology)** from Bengal College of Engineering & Technology (Durgapur) affiliated to West Bengal University of Technology, Kolkata in 2006 with 8.16 DGPA

Academic:

- **XII** from Somalwar High School & Junior College, Nagpur affiliated to Maharashtra State Board of Secondary & Higher Secondary Education, Pune in 2001 with 77.17%
- **X** from Somalwar High School & Junior College, Nagpur affiliated to Maharashtra State Board of Secondary & Higher Secondary Education, Pune in 1999 with 88.93%

TRAININGS / PROJECTS

Projects:

- Successfully carried out the following projects:
  - **"Biophysical Processes & Techniques"** under Dr. H. F. Daginawala, at Central India Institute of Medical Sciences, Nagpur (June 2002).
  - "**Plant Tissue Culture to produce pink cotton"** at Central India Cotton Research Institute, Nagpur (July 2003). **"Preparation of anti-venom serum"** under Dr. K. K. Chakraborty at Bengal Chemicals & Pharmaceuticals Ltd. (July 2004).
  - **"Effect of packaging methods on shelf life of tomato (*Lycopersicon esculentum*)"** under Dr. C. K. Tekchandani and Dr. (Smt.) P. Pariher at Jawaharlal Nehru Krishi Vishwavidyalaya, College of Agricultural Engineering, Jabalpur (May 2005 - July 2005).
  - **"Studies on protease produced by a locally isolated *Micrococcus species*"** under Dr. Kaustav Aikat, HOD Biotechnology at Bengal College of Engineering and Technology, Durgapur (August 2005 – May 2006).
  - **"*In-silico* studies on Iressa drug inhibiting Epidermal growth factor receptor (EGFR) involved in colon cancer"** under Dr. S. Selvakumar, Assistant Professor, Department of Industrial Biotechnology at Bharath University, Chennai-600073 (August 2007- May 2008)**.**
  - **"Production of biodiesel from microalgae"** under Dr. R. Kirubagaran, Scientist-F, OSTI at National Institute of Technology, Chennai-601302. (March 2008 - April 2008).

Others:

- Supervisor of 3rd year B. Tech In-house project entitled **"Bioremediation of industrial waste effluents"** in Department of Biotechnology at National Institute of Technology Warangal, Warangal - 506004, Telangana state (August 2014 - December 2014)

MISCELLANEOUS

Leadership:

- Class In-Charge of B. Tech students (2nd & 4th year) during lecturership at Prathyusha Institute of Technology & Management (Affiliated to Anna University), Tiruvallur, Chennai during 2008 - 2009.

Accolades:

- Secured **24th** Merit Position in S.S.C awarded by Maharashtra State Board of Secondary & Higher Secondary Education, Pune in **1999**.
- Recipient of International Conference travel grant for presentation in Renewable Resources & Biorefineries (RRB)-8, Toulouse, France from Department of Science & Technology, Ministry of Science and Technology, GOI in **2012**.
- Visiting Researcher at Université de Toulouse, France and Faculty of Veterinary Medicine (FMV), Lisbon, Portugal in **2014**.

Positions of Responsibility:

- Editorial Board Member of the open-access Journal, Biocompx [25th April, 2012 - Present].
- Reviewer of Springer Journal, Annals of Microbiology [18th September, 14 – Present].

Professional Memberships:

- Indian Society for Technical Education (ISTE).
- Biotech Research Society of India (BRSI).

RESPONSIBILITIES IN BIOTECHNOLOGY DEPARTMENT (BRAINWARE UNIVERSITY)

- Exam Co-ordinator for B.Sc. (Biotechnology) 2018-19 batch [August, 2018 – April, 2020].
- "GEO-Help desk" departmental faculty representative [October, 2018 – April, 2020].
- Technical Expert for University "Biogas production Unit" [October, 2018 – April, 2020].
- Institutional Quality Assurance Cell (IQAC) member for Teaching-Learning and Evaluation [October, 2018 – April, 2020].
- National Service Scheme (NSS) departmental faculty representative [August 2018 – April 2020].
- Member Secretary of departmental Board of studies (BOS) [September 2018 – April 2020].
- Member of University Roaster Committee [February 2019 – April 2020].

(Dr. SAPRATIV P. DAS)

Refer Annexure for Publications, Books, Conferences & Symposia and Projects

ANNEXURE

PUBLICATIONS (with journal impact factor **[IF]** and no. of citations **[C]**)

1. **Saprativ P. Das,** Rajeev Ravindran, Shadab Ahmed, Debasish Das, Dinesh Goyal, Carlos M.G.A.Fontes and Arun Goyal **(2012)** Bioethanol production involving recombinant *C. thermocellum* hydrolytic hemicellulase and fermentative microbes. *Applied Biochemistry and Biotechnology, Springer, 167, 1475-1488* ***(IF: 3.094; C: 39).***

2. **Saprativ P. Das,** Rajeev Ravindran, Deepmoni Deka, Mohammad Jawed, Debasish Das and Arun Goyal **(2013)** Bioethanol production from leafy biomass of mango (*Mangifera indica*) involving naturally isolated and recombinant enzymes. *Preparative Biochemistry & Biotechnology, Taylor and Francis, 43, 717-734* ***(IF: 3.141; C: 16)****.*

3. **Saprativ P. Das,** Arabinda Ghosh, Ashutosh Gupta, Debasish Das and Arun Goyal **(2013)** Lignocellulosic fermentation of wild grass employing recombinant hydrolytic enzymes and fermentative microbes with effective bioethanol recovery. *Biomed Research International, 2013, ID 386063, 14 pages, doi: 10.1155/2013/38606* ***(IF: 3.246; C: 24)****.*

4. **Saprativ P. Das,** Deepmoni Deka, Arabinda Ghosh, Debasish Das, Mohammad Jawed and Arun Goyal **(2013)** Scale up and efficient bioethanol production involving recombinant cellulase (Glycoside hydrolase family 5) from *Clostridium thermocellum. Sustainable Chemical Processes, Chemistry Central, Springer, 2013, 1(19):1-11, doi: 10.1186/2043-7129-1-19* ***(C: 8)****.*

5. Deepmoni Deka, **Saprativ P. Das**, Naresh Sahoo, Debasish Das, Mohammad Jawed and Arun Goyal **(2013)** Enhanced cellulase production from *Bacillus subtilis* by optimizing physical parameters for bioethanol production. *ISRN Biotechnology, 2013, ID 965310, 11 pages, doi:10.5402/2013/965310* ***(C: 48)****.*

6. **Saprativ P. Das**, Rajeev Ravindran, Arabinda Ghosh, Deepmoni Deka, Debasish Das, Mohammad Jawed, Carlos M.G.A.Fontes and Arun Goyal **(2013)** Efficient pretreatment for bioethanol production from water hyacinth (*Eichhornia crassipes*) involving naturally isolated and recombinant enzymes and its recovery. *Environmental Progress & Sustainable Energy, Wiley Online Library,* 33, (4), 1396-1404*, doi:10.1002/ep.11885* ***(IF: 2.824; C: 18)****.*

7. **Saprativ P. Das,** Debasish Das and Arun Goyal **(2014)** Statistical optimization of fermentation process parameters by Taguchi orthogonal array design for improved bioethanol production. *Journal of Fuels*, *01/2014; 2014(3): 1-11, doi:10.1155/2014/419674* ***(C: 18)****.*

8. **Saprativ P. Das**[†], Ashutosh Gupta[†], Arabinda Ghosh, Rajan Choudhary, Debasish Das and Arun Goyal **(2014)** Bioethanol production from hemicellulose rich *Populus nigra* involving recombinant hemicellulases from *Clostridium thermocellum*. ([†]equal contribution). *Bioresource Technology*, *Elsevier, 165, 205-213, doi: 10.1016/j.biortech.2014.03.132* ***(IF: 11.889; C: 18)****.*

9. Ashutosh Gupta, **Saprativ P. Das**, Arabinda Ghosh, Anil K. Verma, Debasish Das and Arun Goyal **(2015)** Optimization of enzymatic saccharification and fermentation process parameters for production of bioethanol from *Populus nigra* using recombinant enzymes from *Clostridium thermocellum. Research Journal of Recent Sciences, (ISCA, E-ISSN: 2277 – 2502) 4, 144-156* ***(C: 1)****.*

10. **Saprativ P. Das**, Ashutosh Gupta, Debasish Das and Arun Goyal **(2016)** Enhanced bioethanol production from water hyacinth (*Eichhornia crassipes*) by statistical optimization of fermentation process parameters using Taguchi orthogonal array design. *International Biodeterioration and Biodegradation, Elsevier*, 109, 174-184, *doi: 10.1016/j.ibiod.2016.01.008* ***(IF: 4.907; C: 40)****.*

11. Srinithya Ravinuthala, Anjitha V. Nair, Neha Sharma, S. Lokesh, M.C. Madhusudhan and **Saprativ P. Das* (2022)** Co-substrates' influence on bioelectricity production in an azo dye-based microbial fuel cell. *Bioresource Technology Reports, Elsevier, 18(3):101012, doi.org/10.1016/j.biteb.2022.101012* ***(*corresponding author).***

12. Poulomi Ghosh and **Saprativ P. Das* (2024)** Fabrication of a novel bioreactor towards biorefinery approach for better food waste management. Bioresource Technology, Elsevier ***(IF: 11.889;*** *under review)* ***(*corresponding author).***

13. Poulomi Ghosh and **Saprativ P. Das* (2024)** A holistic review on remediation technologies towards heavy metal contaminated soils and waterways. Environmental Monitoring and Assessment, Springer ***(IF: 3.420;*** *under review)* ***(*corresponding author).***

14. Srinithya Ravinuthala, **Saprativ P. Das***, Saravanan S* **(2024)** Bioelectrochemical Systems for enhanced removal of recalcitrant and emerging pollutants in wastewater - a critical review. Environmental Monitoring and Assessment, Springer ***(IF: 3.420;*** *under review)* ***(*joint corresponding author).***

MANUSCRIPTS: *In preparation* - **(1)**

BOOKS & Book Chapters ___ *(*corresponding author)*_____

1. **"**IRESSA- A boon to colon cancer" by **Saprativ Das**, ISBN: 978-3-8443-1117-4; *LAP Lambert Academic Publishing GmbH & Co. KG*, Dudweiler Landstr. 99, 66123 Saarbrucken, Germany **(February 2011).**
2. "A likelihood prototype design for software analysis" by Ishita S. Das and **Saprativ P. Das**, ISBN: 978-3-659-36872-1; *LAP Lambert Academic Publishing GmbH & Co. KG,* Dudweiler Landstr. 99, 66123 Saarbrucken, Germany **(March 2013).**
3. "An insight on dental caries" by Ashutosh Gupta and **Saprativ P. Das**, ISBN: 978-3-659-51806-5; *LAP Lambert Academic Publishing GmbH & Co. KG,* Dudweiler Landstr. 99, 66123 Saarbrucken, Germany **(February 2014).**
4. "Water Hyacinth as a Potential Source of Biofuel for Sustainable Development" by Deepmoni Deka, **Saprativ P. Das**, Rajeev Ravindran, Mohammed Jawed and Arun Goyal, In: Arup K. Sarma, Vijay P. Singh, Rajib K. Bhattacharjya and Suresh A. Kartha (Eds.) Urban Ecology, Water Quality and Climate Change. Water Science and Technology Library, *Springer*, 84, 351-363; *doi: 10.1007/978-3- 319-74494-0_27* **(March 2018).**
5. "Non-human primate model use in understanding infectious diseases" by Poulomi Ghosh and **Saprativ P. Das***, In: Busi Siddhardha, Madhu Dyavaiah and Asad Syed (Eds.): Model Organisms for Microbial Pathogenesis, Biofilm Formation and Antimicrobial Drug Discovery, *Springer Nature,* 489-508*; doi:10.1007/978-981-15-1695-5_25* **(March 2020)**.
6. "*Drosophila melanogaster*: a model organism to understand biological activities of nanoparticles" by Bijayata Patra[†], Poulomi Ghosh[†] and **Saprativ P. Das***, In: Busi Siddhardha, Madhu Dyavaiah and Kaviyarasu Kasinathan (Eds.): Model Organisms to study Biological Activities and Toxicity of Nanoparticles, *Springer Nature,* 195-216; *doi:10.1007/978-981-15-1702-0_10* **(March 2020)**. ([†]equal author contribution).
7. "Ocean, Tidal and Wave Energy: Science and Challenges" by Srinithya Ravinuthala, Sourav Kumar Das, Nithya R. and **Saprativ P. Das***, In: Sanket J. Joshi, Ramkrishna Sen, Atul Sharma and P. Abdul Salam (Eds.) Status and Future Challenges for Non-conventional Energy Sources (VOL-I), *Springer Nature,* 1-21; *doi: 10.1007/978-981-16-4505-1-1* **(March 2022).**
8. "Biorefinery technology for Cellulosic Biofuel production" by Poulomi Ghosh and **Saprativ P. Das***, In: Sanket J. Joshi, Ramkrishna Sen, Atul Sharma and P. Abdul Salam (Eds.): Status and Future Challenges for Non-conventional Energy Sources (VOL-II), *Springer Nature,* 37-66; *doi: 10.1007/978-981-16-4509-9-3* **(March 2022).**
9. "Bioelectric Fuel Cells: Recent trends to manage the crisis on resources for conventional energy" by Gnanamangai B.M., Srinithya R., Mohanraj R., Sandhiya C., Ponmurugan P., Philip Robinson J., Gopalakrishnan R., Poulomi Ghosh and **Saprativ P. Das***, In: Sanket J. Joshi, Ramkrishna Sen, Atul Sharma and P. Abdul Salam (Eds.) Status and Future Challenges for Non-conventional Energy Sources (VOL-II), *Springer Nature*, 201-230; *doi: 10.1007/978-981-16-4509-9-10* **(March 2022).**
10. "Microbial Fuel Cells (MFC) and Its prospects on bioelectricity potential" by Gnanamangai B.M., Poulomi Ghosh, Mohanraj R., Sandhiya C., Ramesh K., Ponmurugan P., Philip Robinson J., Gopalakrishnan R., and **Saprativ P. Das***, In: Sanket J. Joshi, Ramkrishna Sen, Atul Sharma and P. Abdul Salam (Eds.) Status and Future Challenges for Non-conventional Energy Sources (VOL-II), *Springer Nature*, 157-176; *doi: 10.1007/978-981-16-4509-9-8* **(March 2022).**
11. "Biocatalysis of Biofuel Cells: Exploring the Intrinsic Bioelectrochemistry" by Srinithya Ravinuthala and **Saprativ P. Das***, In: Sanket J. Joshi, Ramkrishna Sen, Atul Sharma and P. Abdul Salam (Eds.) Status and Future Challenges for Non-conventional Energy Sources (VOL-II), *Springer Nature,* 177-200; *doi: 10.1007/978-981-16-4509-9-9* **(March 2022).**
12. "Unraveling a dynamic ameliorant of heavy metal–polluted soil: biochar" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Kapoor and Maulin Shah (Eds.) Biochar - Applications for Bioremediation of Contaminated Systems, *De Gruyter, Germany,* 163-184; *doi: 10.1515/9783110734003-008* **(May 2022).**
13. "Application of biochar for wastewater treatment" by Srinithya Ravinuthala, Nithya R. and **Saprativ P. Das*,** In: Riti Kapoor and Maulin Shah (Eds.) Biochar - Applications for Bioremediation of Contaminated Systems, *De Gruyter, Germany,* 185-215; *doi: 10.1515/9783110734003-009* **(May 2022).**
14. "Novel technologies coupling microbes for efficient removal of known, emerging and unknown pollutants in wastewater treatment" by Srinithya Ravinuthala, Dhanashree Vijayrao Bomle, H. N. Sindhu, Asha Kiran, Archana and **Saprativ P. Das***, In: Riti Kapoor and Maulin Shah (Eds.) Syngeristic Approaches for Bioremediation of Environmental Pollutants: Recent Advances and Challenges, *Elsevier,* 11, 199-225; *ISBN 9780323918602, doi.org/10.1016/B978-0-323-91860-2.00009-9* **(August 2022).**
15. "Bioelectrochemical systems for remediation &treatment of wastewater" by Srinithya Ravinuthala, Saravanan S.* and **Saprativ P. Das*,** In: Sartaj Ahmad Bhat, Vineet Kumar, Fusheng Li, Fuad Ameen and Sunil Kumar (Eds.) Environmental Nexus Approach: Management of Water, Waste, and Soil, *CRC Press (Taylor & Francis Group),* 41-56, *doi:10.1201/9781003408352-4* **(July 2024).**

16. "Microbial inoculants: application in the management of metal stress" by Poulomi Ghosh and **Saprativ P. Das***, In: Ajay Kumar, Livleen Shukla, Joginder Singh and Luiz Fernando Romanholo Ferreira (Eds.) Microbes Based Approaches for the Management of Hazardous Contaminants, *Wiley,* 293-311, *doi:10.1002/9781119851158_19* **(July 2024).**

17. "Microbial Fuel Cells: Transitioning towards an industrial level bioremediation" by Srinithya Ravinuthala, Saravanan S.* and **Saprativ P. Das*,** In: Fuad Ameen, Sartaj Ahmad Bhat and Vineet Kumar (Eds.) Microbial Bioremediation and Multiomics Technologies for Sustainable Development: Recent Trends (Chemistry in the Environment, Volume 13) 1st Edition, *RSC,* 319-339, *doi:10.1039/BK9781837673131-00319* **(August 2024).**

18. "Microalgal systems: Exploring the symbiotic synergies through organic wastewater bioremediation for environmental stewardship" by Poulomi Ghosh and **Saprativ P. Das***, In: Fuad Ameen, Sartaj Ahmad Bhat and Vineet Kumar (Eds.) Microbial Bioremediation and Multiomics Technologies for Sustainable Development: Recent Trends (Chemistry in the Environment, Volume 13) 1st Edition, *RSC,* 171-206, *doi:10.1039/BK9781837673131-00171* **(August 2024).**

19. "Bioelectrochemical systems for Bioenergy: Deciphering the potential dynamics toward lignocellulosic biomass valorization" by Srinithya Ravinuthala, Dewansh, Saravanan Settu* and **Saprativ P. Das*,** In: Riti Thapar Kapoor, Mika Sillanpää and Mohd Rafatullah (Eds.) Catalytic Applications of Biochar for Environmental Remediation: Valorization of Lignocellulosic Waste Biomass into Bioenergy (Vol 3), *ACS,* 51-61, *doi: 10.1021/bk-2024-1480.ch003* **(October 2024).**

20. "Green horizons: Pioneering novel routes of biohydrogen and value-added chemicals' generation deploying biochar-based catalysts" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Thapar Kapoor, Mika Sillanpää and Mohd Rafatullah (Eds.) Catalytic Applications of Biochar for Environmental Remediation: Valorization of Lignocellulosic Waste Biomass into Bioenergy (Vol 3), *ACS,* 223-252, *doi: 10.1021/bk-2024-1480.ch011* **(October 2024).**

21. "Fueling sustainability: Breaking new grounds with biochar-mediated functional nanocatalysts for biodiesel production" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Thapar Kapoor, Mika Sillanpää and Mohd Rafatullah (Eds.) Catalytic Applications of Biochar for Environmental Remediation: Valorization of Lignocellulosic Waste Biomass into Bioenergy (Vol 3), *ACS,* 253-279, *doi: 10.1021/bk-2024-1480.ch012* **(October 2024).**

22. "Unveiling a game-changer in the net-zero race: Marine seaweeds for sustainable macrofuel generation" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Thapar Kapoor, Mika Sillanpää, Mohd Rafatullah (Eds.) Blue Bioeconomy: Value-added Products from Marine Algae and Microorganisms, *RSC,* 60-83, *doi: 10.1039/9781837675654-00060* **(November 2024).**

23. **"**Microalgal Biorefineries: An ingenious framework towards wastewater treatment coupled with biofuel production" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Thapar Kapoor and Rachana Singh (Eds.) Green Technologies for Industrial Contaminants, *Scrivener Publishing LLC, Wiley* ***(in press)*** **(December 2024).**

24. "Microbial fuel cells for wastewater remediation concomitant with energy and resource recovery" by Srinithya Ravinuthala, Saravanan S.* and **Saprativ P. Das*,** In: Riti Kapoor and Maulin Shah (Eds.) Green Technologies for Sustainable Environment, *CRC Press (Taylor & Francis Group)* ***(in press)*** **(December 2024).**

25. "Microbial Electrolysis Cells: Technologies for resource recovery of value-added materials from wastewater" by Srinithya Ravinuthala, Saravanan S.* and **Saprativ P. Das*,** In: Riti Kapoor and Maulin Shah (Eds.) Green Technologies for Sustainable Environment, *CRC Press (Taylor & Francis Group)* ***(in press)*** **(December 2024).**

26. "Green algorithms: Artificial Intelligence and Machine Learning synergy for biochar-based effluent remediation" by Poulomi Ghosh and **Saprativ P. Das***, In: Riti Thapar Kapoor and Mika Sillanpää (Eds.) Biochar-Based Catalysts for Removal of Environmental Contaminants: Advanced Treatment Technologies Using Computational Tools, *Elsevier* ***(in press)*** **(December 2024).**

CONFERENCES & SYMPOSIA

1. Deepmoni Deka, P. Bhargavi, Shuchi Singh, **Saprativ P**. **Das**, Ashish Sharma, Dinesh Goyal, M. Jawed and Arun Goyal **(2009)**. Activity enhancement of an alkaline cellulase from a new isolate of *Bacillus* sp. (AS3) by statistical methods. (50th Annual Conference of Association of Microbiologists of India), December 15-18, 2009, National Chemical Laboratory (NCL) Pune, Maharashtra, India.

2. **Saprativ P. Das**, Debasish Das, Dinesh Goyal and Arun Goyal **(2010)** Simultaneous Saccharification and Fermentation (SSF) process involving recombinant *Clostridium thermocellum cellulase* expressed and isolated from E.*coli*. (International Conference on Genomic Sciences, VII Convention of Biotech Research Society of India), Nov 12-14, 2010, Madurai Kamaraj University, Tamil Nadu, India.

3. Deepmoni Deka, **Saprativ P. Das**, M. **Jawed** and Arun Goyal **(2010)** Cellulase production under solid state culture by an isolated fungus using agro-waste for bioconversion to ethanol. (4th Annual Convention of Association of Biotechnology and Pharmacy, National Conference of Emerging trends in Biopharmaceuticals: Relevance to Human Health), Nov 11-13, 2010. Thapar University, Patiala, India.

4. Birendra K Bhattacharjya, **Saprativ P. Das**, Soumya Sasmal, Dipesh Debnath and Sona Yengkokpam **(2011)** possible impact of climate change on fisheries ecology of River Brahmaputra. (International Conference on Climate change and Water), Jan 3-5, 2011, Indian Institute of Technology Guwahati, Guwahati, India.
5. Ruchi Mutreja, Saprativ **P. Das**, Debasish Das, Dinesh Goyal and Arun Goyal **(2010)** Involvement of recombinant *Clostridium thermocellum* cellulase expressed and isolated from *E. coli*. in simultaneous enzymatic and microbial reaction for ethanol production. (4th Annual Convention of Association of Biotechnology and Pharmacy, National Conference of Emerging trends in Biopharmaceuticals: Relevance to Human Health), Nov 11-13, 2010. Thapar University, Patiala, India.
6. **Saprativ P. Das**, Rajeev Ravindran, Debasish Das and Arun Goyal **(2011)** Bioethanol production by Simultaneous Saccharification and Fermentation (SSF) using statistically optimized parameters and mixed enzymes and cultures. (International Conference on New Horizons in Biotechnology, NHBT-BRSI 2011), Nov 21-24, 2011. National Institute for Interdisciplinary Science and Technology- CSIR, Trivandrum, Kerala, India.
7. Rajeev Ravindran, **Saprativ P. Das**, Deepmoni Deka and Arun Goyal **(2011)** Bench scale bioethanol production involving recombinant *C. thermocellum* hydrolytic enzymes and fermentative microbes. (52nd Annual Conference of AMI, Nov 3-6, 2011. International conference on microbial biotechnology for sustainable development), Panjab University, Chandigarh, Punjab, India.
8. Deepmoni Deka, **Saprativ P. Das**, Rajeev Ravindran, M. Jawed, Debasish Das and Arun Goyal **(2011)** Approaches for identification of a combination of hydrolytic enzymes and fermentative microbes for bioethanol production from thatch grass. (CARBO XXVI Symposium on Carbohydrates at the interface of Chemistry and Biology), Nov 23-25, 2011.Indian Institute of Chemical Biology (CSIR), Jadavpur, Kolkata, India.
9. **Saprativ P. Das,** Birendra K Bhattacharjya, Soumya Sasmal, Dipesh Debnath and Sona Yengkokpam **(2011)** Fisheries ecology of floodplain wetlands of Assam. (Young Ecologists Interact and Act, YETI Meet), Dec 13-15, Indian Institute of Technology Guwahati, Guwahati, India.
10. **Saprativ P. Das**, Rajeev **Ravindran**, Debasish Das, Dinesh Goyal and Arun Goyal **(2011)** Reactor scale-up for lignocellulosic fermentation employing different hydrolytic enzymes and bioethanol producers. (International Conference on Yeast Biology), Dec 10-13, 2011. Indian Institute of Technology Bombay, Mumbai, India.
11. Rajeev Ravindran, **Saprativ P. Das**, Deepmoni Deka and Arun Goyal **(2012)** Lignocellulosic biomass as a sustainable source for bioethanol production. (International conference on environmentally sustainable urban ecosystems), Feb 24-26, 2012, Indian Institute of Technology Guwahati, Guwahati, India.
12. Deepmoni Deka, **Saprativ P. Das**, Rajeev Ravindran and Arun Goyal **(2012)** Water hyacinth as a potential source of biofuel for sustainable development. (International conference on environmentally sustainable urban ecosystems), Feb 24-26, 2012, Indian Institute of Technology Guwahati, Guwahati, India.
13. **Saprativ P. Das**, Rajeev Ravindran, Debasish Das and Arun Goyal **(2012)** Enhanced bioethanol production using mixed pretreatment along with mixed recombinant hydrolytic cellulase (GH5) and hemicellulase (GH43) from *Clostridium thermocellum*. (International Workshop and Conference on Renewable Energy and Climate Change), Apr 5-7, 2012, Madurai Kamaraj University, Madurai, Tamilnadu, India**.**
14. **Saprativ P. Das**, **Deepmoni** Deka, Rajeev Ravindran, Debasish Das, Mohammad Jawed and Arun Goyal **(2012)** Lignocellulosic fermentation of water hyacinth involving mixed pretreatment and different hydrolytic enzymes. (International Workshop and Conference on Renewable Energy and Climate Change), Apr 5-7, 2012, Madurai Kamaraj University, Madurai, Tamilnadu, India**.**
15. **Saprativ P. Das**, Rajeev Ravindran, Debasish Das, Carlos M. G. A. Fontes and Arun Goyal **(2012)** Efficient pretreatment for lignocellulosic ethanol fe r m e nt a t i on involving recombinant hydrolytic GH5 cellulase and GH43 hemicellulase from *Clostridium thermocellum.*(8th International Conference on Renewable Resources & Biorefineries), Jun 4 – 6, 2012, Toulouse, France.
16. **Saprativ P. Das**, Debasish Das, Carlos M. G. A. Fontes and Arun Goyal **(2012)** Effective bioethanol recovery employing mixed hydrolytic e nzym e s and fermentative microbes from wild grass (*Achnatherum hymenoides*). (81st Annual meeting of Society of Biological Chemists), Nov 8-11, 2012, Indian Institute of Chemical Biology (CSIR), Jadavpur, Kolkata, India.
17. Rajan Choudhary, **Saprativ P. Das**, Anil Kumar Verma, Debasish Das and Arun Goyal **(2013)** Efficient bioethanol production from lignocellulosic leafy biomass of poplar (*Populas nigra*). (International Conference on Conserving Biodiversity for Sustainable Development), Aug 16-18, 2013, National Institute of Technology Rourkela, Orissa, India.

18. **Saprativ P. Das**, Arabinda Ghosh, Ashutosh Gupta, Debasish Das and Arun Goyal **(2013)** Approaches for identification of a combination of hydrolytic enzymes and fermentative microbes for bioethanol production from wild grass. (Indraprastha International Conference on Biotechnology), Oct 22-25, 2013, Guru Gobind Singh Indraprastha University, Delhi, India.

19. Ashutosh Gupta, **Saprativ P. Das**, Rajan Choudhary, Debasish Das and Arun Goyal **(2013)** Application of recombinant hydrolytic enzymes for bioethanol production from leafy biomass of bamboo (*Bambusa dendrocalamus*) (52nd Annual Conference of AMI, International Symposium on Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance), Nov 17-20, 201, Maharshi Dayanand University, Rohtak, Haryana, India.

20. **Saprativ P. Das**, Ashutosh Gupta, Debasish Das and Arun Goyal **(2013)** Bench scale bioethanol production from *Eichhornia crassipes* involving statistical optimization of fermentation process parameters by Taguchi orthogonal array design. (International conference on advances in biotechnology & bioinformatics, ICABB-BRSI 2013), Nov 25-27, 2013, Dr. D. Y. Patil Vidyapeeth, Pune, India.

21. Ashutosh Gupta, **Saprativ P. Das**, Rajan Choudhary, Debasish Das and Arun Goyal **(2013)** Bioethanol production from *Populas nigra* involving recombinant acetylxylanesterase (*Axe*) from *Clostridium thermocellum.* (International conference on advances in biotechnology & bioinformatics, ICABB-BRSI 2013), Nov 25-27, 2013, Dr. D. Y. Patil Vidyapeeth, Pune, India.

22. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2013)** Dual-stage saccharification of sugarcane bagasse for bioethanol production by mixed recombinant *Clostridium thermocellum* enzymes. (82nd Annual Meeting of Society of Biological Chemists, India and International conference on genomes: Mechanism and function), Dec 2-5, 2013, University of Hyderabad, Andhra Pradesh, India.

23. **Saprativ P. Das**, Ashutosh Gupta, Debasish Das and Arun Goyal **(2013)** Enhanced bioethanol production from sugarcane bagasse involving recombinant *Clostridium thermocellum* GH5 cellulase and GH43 hemicellulase. (BioProcessing India), Dec 5-7, 2013, Indian Institute of Technology Delhi, New Delhi, India.

24. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2013)** Poplar (*Populas nigra*) leafy biomass as a sustainable source for bioethanol production by recombinant *Clostridium thermocellum* hydrolytic enzymes. (BioProcessing India), Dec 5-7, 2013, Indian Institute of Technology Delhi, New Delhi, India.

25. **Saprativ P. Das**, Ashutosh Gupta, Debasish Das and Arun Goyal **(2014)** Utilization of recombinant *Clostridium thermocellum* enzymes cocktail in two-stage hydrolysis of corn cob for bioethanol production. (27th International Carbohydrate Symposium), Jan 12-17, 2014, Indian Institute of Science, Bangalore, India.

26. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2014)** Enhanced bioethanol production by two-stage saccharification from poplar *(Populas nigra)* involving recombinant saccharifying enzymes from *C. thermocellum.* (CARBO-XXVIII, International Conference on Challenges in Chemistry and Biology of Carbohydrates), Jan 20-22, 2014, Forest Research Institute, Dehradun, India.

27. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2014)** Simultaneous saccharification and fermentation (SSF) of corn cob involving recombinant *Clostridium thermocellum* acetylxylan esterase. (CARBO-XXVIII, International Conference on Challenges in Chemistry and Biology of Carbohydrates), Jan 20-22, 2014, Forest Research Institute, Dehradun, India.

28. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2014)** Bioethanol production from peel of jackfruit (*Artocarpus heterophyllus*) involving recombinant hydrolytic enzymes from *Clostridium thermocellum.* (International conference on harnessing natural resources for sustainable development-Global Trend), Jan 29-31, 2014, Cotton College, Guwahati, India.

29. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2014)** Simultaneous saccharification and fermentation (SSF) employing different hydrolytic enzymes over mixed pretreated corn cob. (International conference on harnessing natural resources for sustainable development-Global Trend), Jan 29-31, 2014, Cotton College, Guwahati, India.

30. **Saprativ P. Das,** Ashutosh Gupta, Rajan Choudhary, Debasish Das and Arun Goyal **(2014)** Improved bioethanol production from eucalyptus leaves employing mixed recombinant acetyl-xylanesterase (Axe) and xylanase (GH30) from *Clostridium thermocellum.* (National conference on Environment: Pollution and Protection, EPP-2014), Jan 30-Feb 1, 2014, National Institute of Technology Durgapur, Durgapur, West Bengal, India.

31. Ashutosh Gupta, **Saprativ P. Das,** Rajan Choudhary, Debasish Das and Arun Goyal **(2014)** Pretreatment strategies with improved saccharification of *Populas nigra* involving recombinant acetylxylanesterase (Axe) from *Clostridium thermocellum* for bioethanol production. (International conference on future prospects of advancements in biological sciences, health issues & environmental protection, FAB-HEP 2014), Feb 7-8, 2014, Indira Gandhi Pratishthan, Lucknow, Uttar Pradesh, India.

32. **Saprativ P. Das**, Ashutosh Gupta, Debasish Das and Arun Goyal **(2014)** Utilization of sugarcane bagasse for green fuel production by recombinant *Clostridium thermocellum* biocatalysts and *Candida shehatae* (International symposium on role of fungi and microbes in the 21st century- a global scenario, IMSS-2014), Feb 20-22, 2014, University of Calcutta, West Bengal, India.

33. Ashutosh Gupta, **Saprativ P. Das**, Debasish Das and Arun Goyal **(2014)** Identification of effective pretreatment along with improved saccharification by mixed recombinant *Clostridium thermocellum* hydrolytic enzymes for bioethanol production from water hyacinth. (National seminar on emerging bio-inputs in biotechnology for a green environment), May 9-10, 2014, Gauhati University, Assam, India.

(As corresponding author*)

34. Shubham Sahu, Jidev P. K. and **Saprativ P. Das* (2014)** Second generation bioethanol production from an obnoxious weed, *Parthenium hysterophorus*. (Bioprocessing India), Dec 17 – 20, 2014, Institute of Chemical Technology (ICT), Mumbai, Maharashtra, India *(*corresponding author, oral presentation*).

35. Pratibha Singh and **Saprativ P. Das* (2015)** Exploration of *Jatropha curcas* for enhanced biodiesel production. (International Conference on New Horizons in Biotechnology, NHBT-BRSI 2015), Nov 22-25, 2015, National Institute for Interdisciplinary Science and Technology-CSIR, Trivandrum, Kerala, India *(*corresponding author, oral presentation*).

36. **Saprativ P. Das**, Kunal Kumar, Sachin C. Patwardhan, Santosh B. Noronha **(2017)** Development of a control toolbox for simultaneous saccharification and fermentation (SSF) process. Bioenergy Urja Utsav, July 7-8, 2017, Ministry of Petroleum and Natural Gas (MoPNG) Pune.

37. Amarjit Jha, Riya Chakraborty, Subrata Kumar Dey and **Saprativ P. Das* (2018)** Utilization of kitchen waste for generating a renewable substitute to LPG. International conference on Biotechnological Research and Innovation for Sustainable Development & XV BRSI Convention (BioSD 2018), Nov 22-25, 2018, CSIR-Indian Institute of Chemical Technology, Hyderabad, India.

38. Riya Chakraborty and **Saprativ P. Das* (2018)** Microalgae based biodiesel production deploying kitchen waste. International conference on Biotechnological Research and Innovation for Sustainable Development & XV BRSI Convention (BioSD 2018), Nov 22-25, 2018, CSIR-Indian Institute of Chemical Technology, Hyderabad, India.

39. Sanchari Das, Santanu Maity, Nayan Ghosh, Dhrubajyoti Mondal, Pronoy Mukherjee and **Saprativ P. Das* (2019)** Engineered *Zymomonas mobilis* for industrial fermentation. International conference on recent advances in Informatics, Communication, Management, Health & Applied Sciences (RAICMHAS-2019), Feb 2-4, 2019, Brainware University, Kolkata, India.

40. Bijayata Patra, Manojit Roy, Hiranmay Biswas, Sakil A. Laskar, Rituparna Ray and **Saprativ P. Das* (2019)** Biorefinery technology for sustainable biofuel production. International conference on recent advances in Informatics, Communication, Management, Health & Applied Sciences (RAICMHAS-2019), Feb 2-4, 2019, Brainware University, Kolkata, India (awarded 3rd position in poster presentation).

41. Poulomi Ghosh, Amlan Debnath, Aashish Kumar, Chayan Saha and **Saprativ P. Das* (2019)** Downstream processing approaches for commercialization of algal biofuels. International conference on recent advances in Informatics, Communication, Management, Health & Applied Sciences (RAICMHAS-2019), Feb 2-4, 2019, Brainware University, Kolkata, India.

42. Poulomi Ghosh and **Saprativ P. Das* (2019)** Bagasse characterization along with fermentation process parameters' optimization for augmented biofuel production. 88th meeting of Society for Biological Chemists-India (SBCI) and Conference on the Advances at the Interface of Biology and Chemistry (SBCI-2019), Oct 31 – Nov 3, 2019, Bhabha Atomic Research Centre, Trombay, Mumbai, India.

43. Poulomi Ghosh and **Saprativ P. Das* (2019)** Real-time monitoring of simultaneous saccharification and fermentation process towards enhanced ethanol production. 88th meeting of Society for Biological Chemists-India (SBCI) and Conference on the Advances at the Interface of Biology and Chemistry (SBCI-2019), Oct 31 – Nov 3, 2019, Bhabha Atomic Research Centre, Trombay, Mumbai, India.

44. Poulomi Ghosh, Upasana Paul and **Saprativ P. Das* (2019)** Microalgae based waste-water treatment coupled with CO_2 fixation. 60th Annual Conference of Association of Microbiologists of India & International Symposium on Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health (AMI-2019), November 15-18, 2019, Central University of Haryana, Haryana, India.

45. Poulomi Ghosh and **Saprativ P. Das* (2019)** Transformation of cotton gin agricultural waste to bioethanol. 60th Annual Conference of Association of Microbiologists of India & International Symposium on Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health (AMI-2019), November 15-18, 2019, Central University of Haryana, Haryana, India.

46. Upasana Paul, Poulomi Ghosh, Amarjit Jha and **Saprativ P. Das* (2019)** Waste to wealth: kitchen waste to bioethanol. 60th Annual Conference of Association of Microbiologists of India & International Symposium on Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health (AMI-2019), November 15-18, 2019, Central University of Haryana, Haryana, India.
47. Amarjit Jha, Poulomi Ghosh and **Saprativ P. Das* (2019)** Biorefinery approach to food waste generating value-added products. 60th Annual Conference of Association of Microbiologists of India & International Symposium on Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health (AMI-2019), November 15-18, 2019, Central University of Haryana, Haryana, India.
48. Poulomi Ghosh and **Saprativ P. Das* (2019)** Waste-water treatment coupled with CO_2 fixation by microalgae. 7th Bioprocessing India Conference on Advances in Bioprocessing of Agri-Food resources, Dec 14 – 16, 2019, CSIR- Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, India.
49. Poulomi Ghosh and **Saprativ P. Das* (2019)** Kitchen waste mediated simultaneous saccharification and fermentation for enhanced bioethanol production. 7th Bioprocessing India Conference on Advances in Bioprocessing of Agri-Food resources, Dec 14 – 16, 2019, CSIR- Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, India.
50. Poulomi Ghosh and **Saprativ P. Das* (2020)** Exploitation of microalgal drug potency for treatment of human pathologies. International Conference on Drug Discovery (ICDD) 2020 by Schrödinger Inc, USA in collaboration with Birla Institute of Technology and Science (BITS) Hyderabad, Feb 29 – Mar 2, 2020, Hyderabad, India.
51. Poulomi Ghosh and **Saprativ P. Das* (2020)** Exploitation of *Chlorella vulgaris* for treatment of breast cancer. International Conference on Drug Discovery (ICDD) 2020 by Schrödinger Inc, USA in collaboration with Birla Institute of Technology and Science (BITS) Hyderabad, Feb 29 – Mar 2, 2020, Hyderabad, India.
52. B. Mythili Gnanamangai, Poulomi Ghosh and **Saprativ P. Das* (2020)** Alternative energy production from domestic vegetable waste by microbial fuel cell (MFC). International e-Conference on Frontiers in Industrial Biotechnology (ICFIBT-2020), July 27 – 29, Chennai, India.
53. B. Mythili Gnanamangai, Priyanka B. Waghmare and **Saprativ P. Das* (2020)** Probiotication of different substrates and its sensory evaluation from consumer perspective. International e-Conference on Frontiers in Industrial Biotechnology (ICFIBT-2020), July 27 – 29, Chennai, India.
54. Rhythm Sardana and **Saprativ P. Das* (2020)** Comparative studies on the performance of bioelectricity generation in leguminous and non-leguminous plants. International e-Conference on Frontiers in Industrial Biotechnology (ICFIBT-2020), July 27 – 29, Chennai, India.
55. Sourav Kumar Das and **Saprativ P. Das* (2020)** Identification, screening and *in-silico* analysis of amylase from fungal sources. International e-Conference on Frontiers in Industrial Biotechnology (ICFIBT-2020), July 27 – 29, Chennai, India.
56. Srinithya Ravinuthala and **Saprativ P. Das* (2020)** Utilization of *Trigonella foenum-graecum* to design a plant-microbial fuel cell (P-MFC). International e-Conference on Frontiers in Industrial Biotechnology (ICFIBT-2020), July 27 – 29, Chennai, India.
57. Poulomi Ghosh and **Saprativ P. Das* (2020)** Deciphering the fungal – bacterial consortia potential towards bioremediation. International Conference on Innovations in Biotechnology and Life Sciences (ICIBLS-2020), Delhi Technological University, University in Delhi, Dec 18 – 20, Delhi, India.
58. Poulomi Ghosh and **Saprativ P. Das* (2021)** Deciphering the potential of industrial effluents for biohydrogen production. 5th International Conference on Bioenergy, Environment and Sustainable Technologies (BEST2021), Arunai Engineering College, Tiruvannamalai, Jan 29 – 30, Tamilnadu, India.
59. Riya Chakraborty, Poulomi Ghosh and **Saprativ P. Das* (2021)** Bioprospecting of animal waste and sewage water towards enhanced biogas production. International E-Conference on Bioprospecting (ICONBIO) 2021, Arunai Engineering College, Tiruvannamalai, Jan 29 – 30, Tamilnadu, India.
60. Poulomi Ghosh and **Saprativ P. Das* (2021)** Fabrication of a biodigestor towards biorefinery approach for better food waste management. International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2021), Malaviya National Institute of Technology Jaipur, Apr 04 – 08, Jaipur, India.
61. Srinithya Ravinuthala, Anjitha V. Nair, Neha Sharma, S. Lokesh, M. C. Madhusudhan and **Saprativ P. Das* (2021)** Co-substrates' influence on bioelectricity production in an azo dye-based microbial fuel cell (MFC). International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BRE3CH-2021) CSIR-Indian Institute of Petroleum, Dec 01 – 04, Dehradun, India.
62. Poulomi Ghosh and **Saprativ P. Das* (2022)** Integrated circular biorefinery approach towards co-digestion of *Chlorella sp.* biomass hydrolysate with sugarcane bagasse. 4th Biological Engineering Society Conference – 2022 (BESCON 2022), jointly organized by IIT Kharagpur & Bose Institute, Nov 04 – 06, Kolkata, India.

PROJECTS

1. Principal Investigator / Project co-ordinator of "A biorefinery approach to kitchen waste management involving enhanced saccharification by recombinant *Clostridium thermocellum* enzymes leading to ethanol fermentation and subsequent biogas formation" worth ₹ 8, 00, 000 (*funded by* DHESTBT, Govt. of West Bengal; December, 2018 – December, 2021).
2. Principal Investigator / Project co-ordinator of "Biorefinery approach to kitchen-waste based biogas plants implementation in households" worth ₹ 15, 00, 000 (*funded by* Unnat Bharat Abhiyan, a flagship program of Ministry of Human Resource Development, Govt. of India; August, 2019 – August, 2022).
3. Principal Investigator / Project co-ordinator of "Cost-effective approaches to waste management for renewable fuels production" worth ₹ 30, 00, 000 (*funded by* TATA M-junction, a CSR unit; September, 2019 – September, 2022).
4. Development of an integrated harvesting technology for high-density algal cultivation (*In-house*, BWU).
5. Fabrication of a Tower fermentor for *Zymomonas mobilis* based bioethanol production from sugarcane bagasse (*In-house*, BWU).
6. Eleven sub-projects under the massive Project 13 - Interdisciplinary approach for sustainable use of resources (Project: CSIR-SRTP 2020, NEIST, Jorhat, Assam; Project Co-ordinator: Dr. Pankaj Bharali, Project PI: Dr. Saprativ P. Das; 20th Jun' 2020 – 21st August, 2020).
    a. Identification, screening & in-silico analysis of amylase from fungal sources.
    b. Probiotics production from various food sources along with computer based simulation studies.
    c. Characterization of home-based probiotics subjected to validation by computational biology tools.
    d. Fenurgy - Green energy from *Trigonella foenum – graecum.*
    e. Effect of combination of different carbohydrates and mediator for enhancing soil microbial fuel cells.
    f. *Rhizopus* based mycoremediation studies on hydrocarbon contaminated soil.
    g. Isolation, screening of protease from mycological source and to predict different properties of the gene product by *in-silico* analysis along with subcellular localization of the product.
    h. Domestic waste management model with the production of alternative energy using microbial fuel cells.
    i. Construction of microbial fuel cell (MFC) employing the potential microbial consortia engineering.
    j. Biotransformation of phenol using mixed bacterial population from sewage sludge treatment plant.
    k. Comparative studies of bioelectricity generation in plant-microbial fuel cells (P-MFCs) of different plants.
7. Principal Investigator of "Production and optimization of polyhydroxybutyrate (PHB) from lignocellulosic sugar hydrolysate" (funded by Indian Council of Agricultural Research, Government of India; April, 2022 – March, 2024).
8. Principal Investigator of "Development of a sustainable process for production of value-added products (high purity cellulose and fibers) from agricultural residues for industrial application" worth ₹ 30,51,837 (*funded by* Gujarat State Biotechnology Mission, Govt. of Gujarat; July, 2021 – July, 2024).
9. Principal Investigator of "Development of cellulose and lignin based nano-biocomposites from agrowaste" worth ₹ 56,02,712 (*funded by* Gujarat State Biotechnology Mission, Govt. of Gujarat; May, 2022 – May, 2025).
10. Principal Investigator of "Development of advanced biofuels and bio lubricants from high lipid producing microalgal strain through HTL and Co-HTL process" worth ₹ 1,32,31,568 (*funded by* Gujarat State Biotechnology Mission, Govt. of Gujarat; December, 2022 – December, 2025).

HONOURS & AWARDS *(As corresponding author)*

1. Triumphed the prestigious "**BSAEH-CEES** - **RESEARCH EXCELLENCE AWARD 2021"** sponsored by **Centre for Energy and Environmental Sustainability, India** for the paper entitled **"Fabrication of a biodigestor towards biorefinery approach for better food waste management"** authored by **Poulomi Ghosh** and Saprativ P. Das through **(Flash talk and presentation)** in the **"International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH - 2021), jointly organized by MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, JAIPUR (MNIT, Jaipur)** and **THE BIOTECH RESEARCH SOCIETY, INDIA (BRSI)** at Jaipur, India **(April, 2021).**
2. Achieved 3rd position as a team co-ordinator in annual management fest (BRAINSTER 2K20), presenting idea on **"Biorefinery approach for enhanced biogas usage in village households"** under the theme **"Innovative Business model canvas and Business plan"**, conducted by Brainware University, Kolkata, India **(February, 2020).**

3. Successfully completed as a co-ordinator, the first round of "**Innovate to INSPIRE challenge-2019**", a **national level energy innovation challenge** under the theme "**Clean Energy**" with idea sharing on "**Scale-up of a fabricated 3-stage anaerobic digester for enhanced biomethane production**" **(October, 2019).**

PERSONAL DOSSIER

- Date of Birth: 9th June, 1983
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- Mother's name: Smt. Bharati Das
- Languages known: English, Hindi, Marathi & Bengali
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REFERENCES

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  Indian Institute of Technology Guwahati, Guwahati-781039, Assam, India.
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- **Dr. R. Kirubagaran,**
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Saprativ Das

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