

Dr. S.M. Asaduzzaman Sujan

asad2306@gmail.com, asad@bcsir.gov.bd • +880 1726 737404 • Dhaka, Bangladesh

Office: Fiber & Polymer Research Division, BCSIR Dhaka Laboratories

Bangladesh Council of Scientific and Industrial Research (BCSIR)

Dr. Qudrat-E-Khuda Road, Dhaka-1205, Bangladesh

Education

Ph.D. in Environmental Sciences	2021
Jahangirnagar University, Savar, Bangladesh	
M.Sc. in Applied Chemistry & Chemical Technology	2002
University of Dhaka, Dhaka-1000, Bangladesh	
B.Sc. (Hons) in Applied Chemistry & Chemical Technology	2001
University of Dhaka, Dhaka-1000, Bangladesh.	

Professional Experiences

Principal Scientific Officer (PSO)	2021-Present
BCSIR Dhaka Laboratories, Bangladesh Council of Scientific and Industrial Research (BCSIR)	
Principal Scientific Officer (PSO)	2019-2021
Institute of Energy Research and Development (IERD), Bangladesh Council of Scientific and Industrial Research (BCSIR)	
Senior Scientific Officer (SSO)	2011-2019
Institute of Energy Research and Development (IERD), Bangladesh Council of Scientific and Industrial Research (BCSIR)	
Scientific Officer (SO)	2006-2011
Institute of Energy Research and Development (IERD), Bangladesh Council of Scientific and Industrial Research (BCSIR)	

Project Grants

Project Director (Year 2014-2016)

Climate Change Trust Fund (CCTF), Ministry of Environment, Forests and Climate Change (MoEFCC), Government of Bangladesh.

- **Project Title:** “Mitigation of Carbon Emission and Extension of Alternative Energy usage through dissemination of Biogas Technology (2nd Phase)”. Year 2014-2016
Major activities: Dissemination of Biogas Plants 5,000 Nos, Training conducted: 31 Nos, Seminar arranged: 16 Nos, **Fund:** \$1.25 million (BDT 10.0 Corer).

Deputy Project Director (Year 2011-2013)

Climate Change Trust Fund (CCTF), Ministry of Environment, Forests and Climate Change (MoEFCC), Government of Bangladesh.

- **Project Title:** “Mitigation of Carbon Emissions and Extension of Alternative Energy usage through dissemination of Biogas Plant and Improved Cook Stove”. Year 2011-2013
Major activities: Dissemination of Biogas Plants 2,800 Nos and Improved Cook Stove 28,000 Nos, Training conducted: 29 Nos, Seminar arranged: 8 Nos, **Fund:** \$1.16 million (BDT 9.31 Corer).

Principal/ Associate Investigator (Year 2008-2025)

Special Allocation Project, Ministry of Science and Technology, Government of Bangladesh.

- Production of Nano-lignin from waste lignocellulosic biomass and its subsequent diazotization (SRG-253397 & SL.NO. ES 397) (Year 2025-2026).
- Recycling of waste PVC banner: Production of innovative Nano-composite materials and value-added products (SRG-243323 & SL.NO. ES 323) (Year 2024-2025).
- Waste to energy and value-added chemicals: Pyrolysis of the rubber sole of used defense boots (SRG-233442 & SL.NO. ES 442) (Year 2023-2024).
- Utilization of Chrome-Containing Leather Waste in the Development of Metal-Based Green Composite Material (SRG-223445 & SL.NO. ES 445) (Year 2022-2023).
- Synthesis and Evaluation of Eco-friendly Oxygen Carriers for Carbon-dioxide Capture during Fuel Combustion (SL.NO. ES 351) (Year 2021-2022).

Consultancy Work (Year 2018-2025)

- Practical Action Bangladesh (Year 2019–2020): Comparison study on Kitchen Indoor Air Pollution (IAP) Levels of Traditional Cookstove (TDS) vs Improved/Advanced Cookstove in Local Environmental Conditions.
- Department of Environment, BCSIR & World Bank (February 2018 - March 2019): Energy and Environment Monitoring (Package: DoE-S10), Clean Air and Sustainable Environment (CASE) Project.

Research and Development (R&D) Experiences

- Project Title: “Production and characterization of functionalized composites from waste PVC materials”. BCSIR Dhaka Laboratories (2024- till date).
- Project Title: “Design and Development of Energy Efficient Biogas Cook Stove”. Institute of Energy Research and Development (2019-2022).
- Project Title: “Evaluation and Study on Social, Environmental, and Economic Impact on the Installed Biogas Plants under Biogas Pilot Plant Project of BCSIR”. Institute of Energy Research and Development (2010-2020).
- Project Title: “Production of Bioethanol from Sugarcane Bagasse”. Institute of Energy Research and Development (2013-2019).
- Project Title: “Production of Biogas, Organic Fertilizer, and Bioethanol from Solid Potato Waste”. Institute of Energy Research and Development (2011-2013).
- Project Title: “Development of New Technique for Urban Solid Waste Management”. Institute of Energy Research and Development (2011-2013).
- Project Title: “Design and Development of Different Types of Biogas”. Institute of Energy Research and Development (2009-2012).
- Project Title: “Production of Biofuel from Locally Available Plants such as *Jatropha curcas*, *Ricinus communis*, *Eucalyptus*, etc.” Institute of Energy Research and Development (2007-2011).

Publications

Over 35 peer-reviewed articles on topics including circular economy, waste valorization, and renewable energy.

1. Debnath, A., Uddin, M. T., Hossain, M. K., Mondal, A. K., & **Sujan, S. A.*** (2025). Composite Polymer from Power Plant PVC Waste and Chrome-Tanned Leather Waste: An Approach of Waste Minimization. *International Journal of Polymer Science*, 2025(1), 5595141. doi.org/10.1155/ijps/5595141
2. Khanam, S., Eti, S. A., Bashar, M. S., **Sujan, S. A.**, Sharmin, N., & Ray, S. K. (2025). Dynamic absorption of heavy metal from aqueous solution using lignin-hydrogel and natural filter materials in a packed column system. *International Journal of Biological Macromolecules*, 302, 140356. doi.org/10.1016/j.ijbiomac.2025.140356
3. Alam, M. A., Uddin, M. T., Tasnim, K. T., Sarker, S. S., Razzaq, M. A., Kabir, M. A., **Sujan, S. A.**, ... & Mondal, A. K. (2024). Comparative evaluation of physicochemical and antimicrobial properties of rubber seed oil from different regions of Bangladesh. *Heliyon*, 10(4). DOI: [10.1016/j.heliyon.2024.e25544](https://doi.org/10.1016/j.heliyon.2024.e25544)
4. Hasan, M. R., Abdur, R., Alam, M. A., Aziz, S., **Sujan, S. M. A.**, Islam, D., ... & Hossain, M. (2024). + exploring the effects of different parameters on the incorporation of K ions in eggshell derived CaO reveals highly variable catalytic efficiency for biodiesel conversion. *South African Journal of Chemical Engineering*, 47(1), 67-74.

doi.org/10.1016/j.sajce.2023.10.009

5. Debnath, A., Alam, M. A., Mondal, A. K., Uddin, M. T., Shaikh, M. A. A., & **Sujan, S. M. A.**, (2023). Development of Flexible Composite Sheet with Chrome Shavings Using Polyvinyl Alcohol as a Cross - Linker. *International Journal of Polymer Science*, 2023(1), 6694850. doi.org/10.1155/2023/6694850
6. Akter, T., Sarker, S. S., **Sujan, S. M. A.**, & Parveen, S. (2023). Antimicrobial activity of natural and synthetic dyes used in leather dyeing: a comparative study. *TEXTILE & LEATHER REVIEW*, 6, 387-400. doi.org/10.31881/TLR.2023.077
7. Mondal, A. K., Uddin, M. T., **Sujan, S. M. A.**, Tang, Z., Alemu, D., Begum, H. A., ... & Ni, Y. (2023). Preparation of lignin-based hydrogels, their properties and applications. *International Journal of Biological Macromolecules*, 245, 125580. doi.org/10.1016/j.ijbiomac.2023.125580
8. Sarker, S. S., Akter, T., Parveen, S., Uddin, M. T., Mondal, A. K., & **Sujan, S. M. A.** (2023). Microalgae-based green approach for effective chromium removal from tannery effluent: A review. *Arabian journal of chemistry*, 16(10), 105085. doi.org/10.1016/j.arabjc.2023.105085
9. **Sujan, S. M. A.**, Hossain, M., Uddin, M. N., & Fakhruddin, A. N. M. (2023). Optimization of alkali concentration in the pretreatment of sugarcane bagasse for ethanol production. *Bangladesh Journal of Scientific and Industrial Research*, 58(2), 89-98. doi.org/10.3329/bjsir.v58i2.66990
10. Jamal, M. S., Shahinuzzaman, M., **Sujan, S. M. A.**, Hasan, M. R., Karim, M. R., Dar, M. A., ... & Akhtaruzzaman, M. (2021). Effect of Compression Pressure and Coal Binding on the Fuel Properties of Biomass Pellet. *Solid Fuel Chemistry*, 55(6), 429-438. doi.org/10.3103/S0361521921060070
11. Hossain, M., **Sujan, S. M. A.**, Jamal, M. S., Chowdhury, M. S., Techato, K., & Fakhruddin, A. N. M. (2021). Abiding effects of phenolic antioxidants on oxidative behaviour of fatty acid methyl esters derived from waste cooking oil. *BioResources*, 16(4), 7021. [Link](#)
12. Hossain, M., Goni, L. K. M. O., Muntaha, N., Jamal, M. S., **Sujan, S. M. A.**, Ahmed, S., ... & Fakhruddin, A. N. M. (2021). Box-Behnken design-based optimization for biodiesel production from waste cooking oil using Mahogany (*Swietenia macrophylla*) fruit shell derived activated carbon as a heterogeneous base catalyst. *Reaction Kinetics, Mechanisms and Catalysis*, 133(1), 117-138. [Link](#)
13. Prodhana, A., Hasan, M. I., **Sujan, S. M. A.**, Hossain, M., Quaiyyum, M. A., & Ismail, M. (2025). Production and characterization of biodiesel from *Jatropha* (*Jatropha curcas*) seed oil available in Bangladesh. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 47(1), 3343-3358. doi.org/10.1080/15567036.2020.1851819
14. **Sujan, S. M. A.**, Kashem, M. A., & Fakhruddin, A. N. M. (2020). Lignin: a valuable feedstock for biomass pellet. *Bangladesh Journal of Scientific and Industrial Research*, 55(1), 83-88. doi.org/10.3329/bjsir.v55i1.46735

15. **Sujan, S. M. A.**, Jamal, M. S., Asad, M. A., & Fakhruddin, A. N. M. (2019). Bio-ethanol production from *Jatropha curcus*. *Bangladesh Journal of Scientific and Industrial Research*, 54(1), doi.org/10.3329/bjsir.v54i1.40729
16. Islam, M. Z., Asad, M. A., Hossain, M. T., Paul, S. C., & **Sujan, S. M. A.** (2019). Bioethanol production from banana pseudostem by using separate and cocultures of cellulase enzyme with *Saccharomyces cerevisiae*., DOI: [10.3923/jest.2019.157.163](https://doi.org/10.3923/jest.2019.157.163)
17. **Sujan, S. M. A.**, Bari, M. L., & Fakhruddin, A. N. M. (2018). Effects of physical pretreatment (crushing and ball milling) on sugarcane bagasse for bioethanol production. *Bangladesh J Botany*, 47(2), 257-264.
18. Alam, M. J., Rana, S. M. S., Haque, M. A., Hossain, M., **Sujan, S. M. A.**, & Jamal, M. S. (2017). Biodiesel from non-edible Karanja seed oil. *Bangladesh Journal of Scientific and Industrial Research*, 52(1), 15-20. doi.org/10.3329/bjsir.v52i1.32066
19. **S.M. Asaduzzaman Sujan**, Sadia A. Chowdhury, A.M. Sarwaruddin Chowdhury, Choudhury Mahmood Hasan, Md. Hossain Sohrab “Phytochemical and Biological studies of stem bark of the plant *stereospermum* (L.F.) A.P.DC.” *Journal of Bangladesh Chemical Society*, Vol. 28 (1 & 2), 64-70, 2016.
20. **Sujan, S. M. A.**, Jamal, M. S., Hossain, M., Khanam, M., & Ismail, M. (2015). Analysis of gas condensate and its different fractions of Bibiyana gas field to produce valuable products. *Bangladesh Journal of Scientific and Industrial Research*, 50(1), 59-64. doi.org/10.3329/bjsir.v50i1.23811
21. Rana, S. M. S., Haque, M. A., Poddar, S., **Sujan, S. M. A.**, Hossain, M., & Jamal, M. S. (2015). Biodiesel production from non-edible Mahogany seed oil by dual step process and study of its oxidation stability. *Bangladesh Journal of Scientific and Industrial Research*, 50(2), 77-86. doi.org/10.3329/bjsir.v50i2.24348
22. **S.M. A. Sujan**, M.H. Sohrab. M. Mahboob Ali Siddiqi, A.M. Sarwaruddin Chowdhury, M. Hasan “*p*-Hydroxycinnamic acid Isolated from stem bark of *Stereospermum chelonoides*” *Dhaka University Journal of Applied Science & Engineering*. Vol 2, No. 2(2): 161-164, 2014 (January).
23. Poddar, S., Kamruzzaman, M., **Sujan, S. M. A.**, Hossain, M., Jamal, M. S., Gafur, M. A., & Khanam, M. (2014). Effect of compression pressure on lignocellulosic biomass pellet to improve fuel properties: Higher heating value. *Fuel*, 131, 43-48. doi.org/10.1016/j.fuel.2014.04.061
24. Hossain, M., Moniruzzaman, M., **Sujan, S. M. A.**, Hossain, M., & Jamal, M. S. (2014). Extraction of crude rubber oil from rubber seed and production of biodiesel.
25. Hossain, M., **Sujan, S. M. A.**, & Jamal, M. S. (2013). Antioxidant effect on oxidation stability of blend fish oil biodiesel with vegetable oil biodiesel and petroleum diesel fuel. *International Journal of Renewable Energy Development*, 2(2), 75-80. [Link](#)
26. Moniruzzaman, M. D., Alam, M. Z., **Sujan, S. M. A.**, Hossain, M., & Jamal, M. S. (2013). Enzymatic saccharification of bagasse: Effects of different pre-treatment methods. *International Journal of Renewable Energy Research*, 3(2). [Link](#)

27. S.M. Sohel Rana, Md. Aminul Haque, Mosharof Hossain, **S.M.A. Sujan**, M.S. Jamal, Md. Ashraful Islam “An Approach to Produce Biodiesel from Non_Edible Mehogany Seed (*Swietenia macrophylla*) Oil through Pre-Esterification and Transesterification”. Jagannath University Journal of Science. Vol.02 (II) PP; 37-44, 2013. ISSN2224-1698
28. Islam, M. A., Haque, M. A., Rahman, M. M., Ismail, M., Hossain, M., **Sujan, S. M. A.**, & Jamal, M. S. Physico-chemical properties and application of biodiesel produced from non-edible rubber (*hevea brasiliensis*) seed oil through transesterification. Jagannath University Journal of Science. Vol.02 (I) PP; 107-115, 2013. ISSN2224-1698. [Link](#)
29. Imran, H. M., Khan, A. H., Islam, M. S., Niher, R. S., **Sujan, S. M. A.**, & Chowdhury, A. S. (2012). Utilization of Karanja (*Pongamia pinnata*) as a Major Raw Material for the Production of Biodiesel. Dhaka University Journal of Science, 60(2), 203-207. doi.org/10.3329/dujs.v60i2.11506
30. Saiful Islam, M., Jamal, M. S., **Sujan, S. M. A.**, Ismail, M., & Saha, M. (2011). Bio-oil from pyrolysis of rice husk., pp 1-7.
31. Jamal, M. S., **Sujan, S. M. A.**, Miah, M. Y., Banik, S. K., Ahmed, S. U., & Feroza, B. (2011). Ball milling pretreatment of bagasse for ethanol production by enzymatic saccharification and fermentation. Bangladesh Journal of Scientific and Industrial Research, 46(3), 353-358. doi.org/10.3329/bjsir.v46i3.9042
32. **Sujan, S. M. A.**, Bashar, M. S., Rahaman, M., Haque, M. N., Miah, M. Y., Jamal, M. S., & Banik, S. K. (2011). Optimization of aeration technique for the reduction of impurities (corrosive gases) from biogas. Bangladesh Journal of Scientific and Industrial Research, 46(3), 339-342. doi.org/10.3329/bjsir.v46i3.9040
33. **Sujan, S. M. A.**, Jamal, M. S., Haque, M. N., & Miah, M. Y. (2010). Performance of different catalysts on biodiesel production from *Jatropha curcas* oil through transesterification. Bangladesh Journal of Scientific and Industrial Research, 45(2), 85-90. doi.org/10.3329/bjsir.v45i2.5702
34. Bashar, M. S., Haque, M. N., Miah, M. Y., Rahaman, M., **Sujan, S. M. A.**, Banik, S. K., & Zobayer, A. N. M. (2009, December). Reduction of hydrogen sulfide (H₂S) from poultry based biogas by aeration technique. In *2009 1st International Conference on the Developements in Renewable Energy Technology (ICDRET)* (pp. 1-3). IEEE. [10.1109/ICDRET.2009.5454193](https://doi.org/10.1109/ICDRET.2009.5454193)
35. **Sujan, S. M. A.**, Hirata, S., & Minowa, T. (2009). An approach to produce biodiesel from non-edible *Jatropha curcas* oil through dual step process: Preesterification and transesterification. Bangladesh Journal of Scientific and Industrial Research, 44(3), 347-352. doi.org/10.3329/bjsir.v44i3.4409

Conference Presentations

1. S.M. Sohel Rana, Md. Aminul Haque, Mosharof Hossain, **S.M.A. Sujan**, and M.S. Jamal “An Approach to Produce Biodiesel from Non-edible Mahogany seed (*Swietenia macrophylla*) oil through Pre-esterification and Transesterification and improvement of

oxidation stability by addition of phenolic antioxidant.” The 36th annual conference of Bangladesh Chemical Society, Hajee Mohammad Danesh Science and Technology University, March 01, 2014, Abstracts, P 5.

2. M. J. alam, S. m. S. Rana, M. A. Haque, M. Hossain, **S.M.A Sujan**, M. S. Jamal, “An approach to produce biodiesel from Karanja (*Pongamia pinnata*) seed oil and improvement of its oxidation stability,” The 37th annual conference of Bangladesh chemical society, Comilla University, April 11, 2015, Abstracts, P 63.
3. N. Akhter, M. A. Haque, M. Hossain, **S.M.A Sujan**, M. S. Jamal “Production of biomass pellets from different sawdust to enhance fuel efficiency” The 37th annual conference of Bangladesh chemical society, Comilla University, April 11, 2015, Abstracts, P 64.
4. Nargis Akter, Md. Aminul Haque, M. Hossain, **S. M. A Sujan**, M. S. Jamal, “Production of biomass pellets from different sawdust to enhance fuel efficiency” 16th Asian chemical congress (16acc), 16-19 March, 2016, Buet, Dhaka, Bangladesh, Abstracts, P 397.
5. Md. Jahangir Alam, S. M. Sohel Rana, Md. Jahangir Alam, Md. Aminul Haque, M. Hossain, **S.M.A. Sujan**, M. S. Jamal “Production of bio-diesel from non-edible oil (Karanja) sources” 16th Asian Chemical Congress (16acc), 16-19 March, 2016, Buet, Dhaka, Bangladesh, Abstracts, P 396.
6. S. M. Sohel Rana, Md. Jahangir Alam, Md. Aminul Haque, M. Hossain, **S.M.A. Sujan**, M. S. Jamal “Production of bio-diesel from noneidble oil sources” 16th Asian chemical congress (16acc), 16-19 March, 2016, Buet, Dhaka, Bangladesh, Abstracts, P 399.
7. The 8th International Science Conference organized by World Science Congress, 21-25 November 2018, Gandhi Bhawan of Jadavpur University, Kolkata, India.
8. 1st International Conference on “Biological and Environmental Research: Recent Development, Challenges and Future Prospects (ICBER 2018)” at Jessore University of Science and Technology (JUST), Jessore, Bangladesh, on September 16-17, 2018.
9. International Conference on “Energy Efficiency and Conservation Awareness (ICEECA)”, 11-12 November 2019, Hotel Pan Pacific Sonargoan, GIZ, Dhaka, Bangladesh.
10. **S.M.A. Sujan**, M. Hossain, M.S. Jamal, and A.N.M. Fakhruddin “Biorefinery waste lignin: A valuable feedstock for solid fuel” OP-A07, page-151, International Conference on “Science and Technology for Celebrating the Birth Centenary of Bangabandhu (ICSTB-2021)” held on 11-13 March 2021 at Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh.
11. M.S. Jamal, M.S. Bashar, M. Hossain, and **S.M.A. Sujan** “Perovskite solar cell: Recent trends and future challenges” IL-C02, page 160, International Conference on “Science and Technology for Celebrating the Birth Centenary of Bangabandhu (ICSTB-2021)” held on 11-13 March 2021 at Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh.
12. M. Hossain, R. Akhter, M. Ismail, M.S. Jamal and **S.M.A. Sujan** “Opportunities and challenges for bioelectricity from organic waste in Bangladesh” OP-C21, page 270, International Conference on “Science and Technology for Celebrating the Birth Centenary

of Bangabandhu (ICSTB-2021)” held on 11-13 March 2021 at Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka, Bangladesh.

13. Shashanka Shekhar Sarker, Shakila Akter, Md. Abu Bakar Siddique, Shamima Akhtar Sharmin*, Sahana Parveen, **S.M.A. Sujan**, ‘Phytoremediation: A green technology to remediate chromium and arsenic polluted soils using three Ipomoea species of Bangladesh’, International Conference on Environmental Protection for Sustainable Development (ICEPSD), 2022, 2-4 September, PP-157, p 420, Bangladesh.
14. Taslima Akter, **S.M.A. Sujan**, and Sahana Parveen*, “Bacterial Keratinolytic Protease Enzyme in Dehairing of Leather Hides and Skins”, International Conference on Environmental Protection for Sustainable Development (ICEPSD), 2022, 2-4 September, 2022, PP- 49, p 350, Bangladesh.
15. **S.M.A. Sujan**, M.S. Jamal, M.S. Islam and M. Hossain, “A Green Energy Technology: Biogas Plant Development, Dissemination and Assessment by IFRD, BCSIR and Its Environmental Impact”, International Conference on Environmental Protection for Sustainable Development (ICEPSD), 2022, 2-4 September 2022, OP-C23, p-135, Bangladesh.
16. **S.M.A. Sujan**, M. Hossain, M. Nasir Uddin and A.N.M. Fakhruddin, “Optimization of alkali concentration in the pretreatment of sugarcane bagasse for ethanol production”, BCSIR Congress, 2022, 01-03 December, OP-D19, p-198, Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
17. Taslima Akter, Shashanka Sekhar Sarker, **S.M.A. Sujan**, and Sahana Parveen*, “Antimicrobial Activity of Some Natural Dyes Used in Leather Dying Process”, BCSIR Congress, 2022, 01-03 December, PP-29, p-313, Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
18. Md. Tushar Uddin, Md. Ashraf Alam, Md. Abdur Razzaq and **S.M.A. Sujan**, “Synthesis of fat liquor from indigenous sources and its application on leather process”, BCSIR Congress, 2022, 01-03 December, OP-B24, p-191, Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh.
19. **S. M. Asaduzzaman Sujan**, Md. Tushar Uddin and Akash Debnath, “Fabrication and Characterization of Flexible Composite Sheet from Chrome Shavings using a Cross Linking Agent Polyvinyl Alcohol.” 7th International Congress on “Innovative Aspects for Leather Industry”, 23-24 November 2023, organized by Ege University, Izmir, Turkey.
20. Md. Tushar Uddin, Akash Debnath, **S. M. Asaduzzaman Sujan**, “Recycling of chrome-tanned leather waste to prepare of polymer-based composites: An approach of waste minimization (ID 0327).” BCSIR Congress 2023, 8-10 March 2024, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR).
21. Al-Tamanna, Badhan Shaha, Priyanka Dey Suchi, Md. Muniruzzaman, Md. Tushar Uddin, Kanish Fatama, Shimul Chakma, **S. M. Asaduzzaman Sujan**, “Vermicomposting utilizing leather industry solid waste (ID 0441)”. BCSIR Congress 2023, 8-10 March, 2024, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR).

22. Mohammad Ariful Islam, Dr. Mohammad Ismail, **S. M. Asaduzzaman Sujan**, Dr. Mohammad Shah Jamal “Eco-Friendly Bio-oil Production from Co-pyrolysis of Mixed Wastes of MSW, Plastics and Tyre (ID 1681)”. BCSIR Congress 2023, 8-10 March, 2024, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR).
23. Riyadh Hossen Bhuiyan, Md. Saiful Quddus, Abhijit Chowdhury, **S. M. Asaduzzaman Sujan**, Swapan K Ray, “Synthesis of silver-lignin composites: Examination of physicochemical and antimicrobial properties (ID0494)”. BCSIR Congress 2023, 8-10 March 2024, organized by Bangladesh Council of Scientific and Industrial Research (BCSIR).

Thesis Supervisions

- MS Thesis: “Designing a Mini Biodiesel Production Plant and Characterizing Different Properties of Produced Biodiesel from Waste Cooking Oil”. Renewable Energy Technology, University of Dhaka, Dhaka, Bangladesh (2019).
- MS Thesis: “Production and Evaluation of Liquid Fuel and Charcoal via Pyrolysis from Waste Tire”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2018).
- MS Thesis: “Eco-friendly Electricity Production from Locally Available Biomass using Microbial Fuel Cell”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2018).
- MS Thesis: “Structural Evaluation of Pretreated Corn Cob Biomass for Bioethanol Production”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2016).
- MS Thesis: “Production of Bioethanol from Banana pseudo-stem through pretreatment, saccharification, and fermentation”. Applied Chemistry and Chemical Engineering, Noakhali Science and Technology University, Noakhali, Bangladesh (2013).
- MS Thesis: “Effect of Pretreatment (Ball Milling) on Enzymatic Saccharification of Lignocellulosic Biomaterial (Bagasse)”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2013).
- MS Thesis: “Development of a Low-Cost Downdraft Gasifier for Gasification of Biomass”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2012).
- MS Thesis: “Production of Biogas and Bio-fertilizer by Anaerobic Fermentation of Solid Waste (Cow Dung)”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2012).
- MS Thesis: “Studies on the Fuel Properties of Biomass Pellets from Different Renewable Sources”. Applied Chemistry and Chemical Engineering, University of Dhaka, Dhaka, Bangladesh (2011).

Industrial Process Developed

- M.S. Jamal, **S.M.A. Sujan**, Mosharof Hossain, Mashudur Rahaman, Muhammad Shahriar Bashar “A process of new design of fixed dome family size Biogas Plant”. Ref. No. 39.373.037.04.00.187.2012/475, Date: 04.02.2014.
- M.S. Jamal, **S.M.A. Sujan**, Mosharof Hossain, Mashudur Rahaman, Muhammad Shahriar Bashar “Center pipe for biogas plant”. Ref. No.39.373.037.00.00.0187.2012/28, Date: 11.03.2013.
- **S.M.A. Sujan**, M.S. Jamal, Md. Saiful Islam, Md. Naimul Haque, “Studies on the formulation of Radiator coolant”. Ref. No. 39.373.037.05.00.026.2010.3654, Date: 05.07.2010.

Professional Memberships

- American Chemical Society (ACS), United States of America (Membership Number: Regular 34480975)
- Royal Society of Chemistry (RSC), United Kingdom (Membership Number: AMRSC 671479)
- Applied Chemistry and Chemical Engineering Alumni Association, Dhaka University
- National Biogas Committee, SREDA

Professional Trainings

1. Training course on “Turnitin iThenticate Software” BCSIR, Dhaka, September 11, 2025.
2. Training course on “Different Techniques of R&D Data Analysis and their Applications”, BCSIR Laboratories, Dhaka, BCSIR, 26 June 2023.
3. Training course on “Simultaneous Thermal Analyzer (STA)” LRI, BCSIR, Savar, 04-08 June 2023.
4. Training course on “Turnitin iThenticate Software” BCSIR, Dhaka, January 30, 2023.
5. Training course on “Clearance of import-export cargoes in relation of Customs procedure and WTO TFA requirement” organized by Feed the Future Bangladesh Improving Trade and Business Enabling Environment Activity, Dhaka, January 16, 2023.
6. Training Course on “Biogas Production, Power Generation and Upgradation for Vehicular Application” 14-25 October 2019, Indian Institute of Technology (IIT), Delhi, India.
7. Training Course on “Project Appraisal, EIA and Formulation of DPP”, 14th July to 1st August, 2019, NAPD, Ministry of Planning, Bangladesh.
8. Training Course on “Train the Trainers Course for Commercial and Slaughterhouse-based Biogas” under GIZ- Renewable Energy and Energy Efficiency Program (REEEP), June 30- July 4, 2018, Dhaka.
9. Workshop on “Situation Analysis and Future Perspective of Agro-Industrial Biogas Plants in Bangladesh Utilization (GERBIO)”, December 18, 2016, SREDA multipurpose Conference Hall, IEB Building (9th Floor), Ramna, Dhaka.

10. National Workshop on Finalization of Bangladesh National Conservation Strategy (NCS), 24 October 2016, Hoimonti Auditorium, Bana Bhaban, Agargaon, Dhaka.
11. Training workshop on ISO/IEC-17025 Laboratory Accreditation-Requirements and procedures, 11-12 April 2016, BCSIR, Dhaka-1205.
12. Training course on “Solar Photovoltaic (PV) Energy Technology” IFRD, BCSIR, Dhaka, 13-16 September 2015.
13. Two-Day Training Workshop on “Mainstreaming Gender Equality in Climate Change”, 7-8 April 2015, UN Women Bangladesh.
14. Training course on “12th Environmental Management and Sustainable Development” held from 06~20th February 2011 at Bangladesh Public Administration Training Centre (BPATC), Saver, Dhaka, Bangladesh.
15. Training program on operating system and maintenance of Atomic Absorption Spectrophotometer (AAS) during 09~11 August 2010 at Bangladesh Council of Scientific and Industrial Research (BCSIR), Dhaka-1205, Bangladesh.
16. Training Course on "Renewable Energy/ Bioenergy in Rural Areas" Funded under the Project on ASEAN-Japan South-South Cooperation (with SAARC Cooperation) held during 8-21 March 2009 in Thailand.
17. Research & training on "Research on Biomass Technology" at AIST (National Institute of Advanced Industrial Science and Technology), Chugoku, Hiroshima, Japan, from 9th October 2007 to 30th August 2008.
18. Completed one-month training on "Industrial Process Unit Operation & Process Control Techniques" from Training Institute for Chemical Industries (TICI), 29/08/2004 to 28/09/2004, the Central Training Institute of BCIC, Bangladesh.
19. Four weeks in-plant training in Karnaphuli Paper Mills Ltd, 06 September-01 October 2003, Rangamati, Bangladesh.

Book Authorship

- Author of a book titled “Bioplastics in Bangladesh: Relevance, Need and Potential”, Publisher: Shakobari, Publication Year: 2025.

Awards

- Ph.D. Fellowship: Bongabondhu Fellowship for the Science and ICT Project (2012), Ministry of Science and Technology, Government of Bangladesh.

(S. M. Asaduzzaman Sujan)