

Curriculum Vitae



Name: **Dr. Sudipta De**
Designation: Professor,
Mechanical Engineering Department
Jadavpur University, Kolkata, India
Sex: Male
Date of Birth: 31st October 1966
Address for Communication: Flat-2R 9/7, Purbachal Phase II, Sector III, Salt Lake,
Kolkata: 700097, India
Telephone: +91 33 24572435 (Office).
+91 33 23355059 (Residence)
+91 9831245561 (Cell Phone)
Fax: +91-33-24146890
E-mail: de_sudipta@rediffmail.com,
sudipta.de@jadavpuruniversity.in

Academic Degrees:

Degree	Year	Discipline	Institute	Remarks
Doctor of Philosophy (PhD)	2001	Engineering	Indian Institute of Technology (IIT), Kharagpur, India.	Title: 'Some thermodynamic and experimental studies related to clean coal technology'
Master of Technology (MTech)	1991	Thermal Sciences	Indian Institute of Technology (IIT), Kharagpur, India	CGPA 8.3
Bachelor of Engineering	1989	Mechanical Engineering	Bengal Engineering College (Calcutta University)	First Class

Post Doctoral Research Work Abroad

- Several visits to Norway as **Indian Coordinator of UTFORSK project** (2018-2019) between **Norway and BRICS countries and Japan**.
- Visited and made research presentations in **University of Bologna, Italy** in April 2017 as Faculty Member of Project E-QUAL
- Visited and made research presentations in **Kings College, London, UK** in April 2017 as Faculty Member of Project E-QUAL.
- Several visits to **University of Stavanger, Norway** as Indian Coordinator of an **Indo-Norwegian Cooperation program (INCP)** (2015-2019) project.
- **Selected Indian Professor under Erasmus Mundus External Cooperation Window India4EU program of European Union to visit Department of Energy Technology, Royal Institute of Technology (KTH), Stockholm, Sweden during 2010 in sustainable energy engineering discipline.**

- Nominated **Senior Scientist** for **clean and sustainable energy technology** by Indian National Science Academy (**INSA**), New Delhi to visit Department of Energy Systems of the **Technical University of Munich**, Germany under International Collaboration/Bilateral Exchange Program in 2010.
- Visiting researcher to Department of Energy Sciences, **Lund University, Sweden** during July-September 2007 under **Swedish Research Link international collaboration funding**.
- As guest researcher at the Department of Energy Sciences, **Lund University, Sweden** during March, 2005 to June, 2006.

Experience

Previous positions:

Period	Place of Employment	Designation
07 th April 2008 to till date	Mechanical Engineering Department Jadavpur University	Professor
21 st September 2001 to 06 th April 2008	Mechanical Engineering Department Jadavpur University	Reader
22 nd September 1998 to 20 th September 2001	Mechanical Engineering Department Jadavpur University	Lecturer (Senior scale)
23 rd September 1991 to 21 st September 1998	Mechanical Engineering Department Jadavpur University	Lecturer
01 st April 1991 to 20 th September 1991	Developments Consultant Ltd., Kolkata, India	Design Engineer

Subjects Taught/Teaching

UG Courses: Thermal and energy engineering courses

PG Courses: Advanced Thermodynamics, Energy Conservation, Advanced Power Plants, Sustainable Engineering etc.

Administrative Experience

- **Member, Alumni Council** of Jadavpur University (as approved by the Executive Council of the University)
- **Chairman, Curriculum and Syllabus Revision Committee** of both **UG and PG** of the **Faculty of Engineering and Technology of Jadavpur University** (2022)
- **Former Vice President, Institute Innovation Cell (IIC), Jadavpur University**
- **Nodal Officer-Academic** of World Bank funded MHRD-India project: **Technical Education Quality Improvement Program (TEQIP)**, Phase III of Jadavpur University (2018-2021). JU was the mentor of two institutes: University Departments of Rajasthan Technical University (Kota) and Tripura Institute of Technology, Agartala during TEQIP, Phase III.
- **Former Deputy Coordinator, Internal Quality Assurance Cell (IQAC), Jadavpur University.**
- **Nodal Officer, Faculty Development Program** of World Bank funded **Technical Education Quality Improvement Program (TEQIP)**, Phase II of Jadavpur University (2013-2017).
- **Former member and convener, Administrative committee of Industry Institute Partnership Cell of Jadavpur University.**

- Teacher in charge of Departmental Library (2003-2005).
- Convener, **Seminar subcommittee of Golden Jubilee celebration of Jadavpur University.**

Some Relevant Professional Experiences

- **Sole external expert** for the selection for the post of **Executive Director (Excavation) in E9 Grade of Coal India Limited** on 25th June 2025.
- **Expert Moderator of the inaugural Panel Discussion** on Coal: Mining, Washing, Gasification, Chemicals and Liquid Fuel in the **4th East and North East India Energy Conclave of the Indian Chamber of Commerce (ICC)**, 22nd May 2025, Pine Hall, The Park Hotel, Kolkata.
- **Expert member for selection of faculty members/research scientists** of several Indian Institutes.
- **Senior Advisor, Center of Excellence on Renewable Energy of the Govt. of West Bengal**, Department of Technical Education, Training and Skill Development
- **Senior Advisor, Center of Excellence on Sustainability, Net Zero, Circular Economy of the Govt. of West Bengal**, Department of Technical Education Training and Skill Development
- Invited expert on Science Day by the **Variable Energy Cyclotron Centre (VECC), Kolkata** for training on **circular economy**, 28th February 2025.
- Lead trainer for engineers and officers of **Damodar Valley Corporation (DVC)** on **Environmental, Social, and Governance (ESG)**, organized by the **Bengal Chamber of Commerce and Industry** as the key resource person of their Energy and Environment Committee, 20th February 2025 at DVC Tower, Kolkata
- Guest of Honor, 2nd International Conference on Recent Innovations and Developments in Mechanical Engineering (**ICRIDME**), **NIT Meghalaya**, 14-16 November 2024.
- Panelist in discussion on 'Rejuvenating Culture of Innovation Entrepreneurship in Education Institutions' organized by **MeitY Startup Hub, IIM Calcutta Innovation Park and Confederation of Indian Industries (CII)**, Hotel Hindustan International, Kolkata, 3rd August 2024.
- Visited several institutes as **Chairman of the Peer Team of National Accreditation and Assessment Council (NAAC)** for the accreditation process of NAAC.
- **Chief Guest of the celebration of World Environment Day by the Damodar Valley Corporation (DVC)** at DVC Headquarters, Kolkata, 5th June 2024.
- Invited training for senior professionals of **Haldia refinery of Indian Oil Corporation Ltd.** on Sustainable Development and Sustainable Energy, 3rd June 2024.
- **Represented India in the ISO/TC 238 'Solid Biofuels'** on 17th May 2024 at Vienna, Austria.
- Expert panelist in the session "**BIMSTEC Climate Change Forum: Challenges & Mitigation – the Policy Perspective**" in the **The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Business Conclave** organized by the **Indian Chamber of Commerce** with the support of **Ministry of External Affairs, Government of India**, June 13-15 2023, Hotel Hyatt Regency, Kolkata.
- Selected as the sole representative from India by the **Bureau of Indian Standards, New Delhi** as the **Indian Expert for the 14th Plenary Meeting of ISO/TC 238 Solid Biofuels** on 11th May 2023 at Vancouver, Canada.
- Elected **Fellow of the International Society for Energy, Environment and Sustainability (ISEES)**, at IIT-BHU, conferred on 16th December 2022.

- Awarded **‘Shiksharatna Award 2022’** by the **Government of West Bengal** for lifetime contribution to the Higher Education and Research.
- Expert Panelist in the program: ‘Promoting Research Excellence in Academics Across West Bengal’, jointly organized by the **West Bengal State Council of Higher Education and Elsevier**, August 16-17 2022.
- **Leader** of the Indian delegation in the **13th Plenary Meeting of ISO/TC 238 ‘Solid Biofuels’** during 19-20 May 2022. India participated in such meeting first time as a participating member. Previously India was an observing member.
- Key Resource Person, Industry-Academia Connect Task Force, **The Bengal Chamber of Commerce and Industry, Kolkata.**
- **Member, PCD-7 Standardization of Solid Biofuels: Groups for ‘Terminology and Nomenclature’ and ‘Briquettes/Pellets’ of the Bureau of Indian Standards (BIS).**
- Awarded **‘INSA Teachers Award 2019’** by Indian National Science Academy (INSA), New Delhi in 2019.
- Elected **Fellow of the West Bengal Academy of science and Technology (WAST)**, 2019.
- **Chairperson** in session titled "6-4 Renewable Energy" at **‘American Society of Mechanical Engineers (ASME) 2019 Gas Turbine India Conference’**, December 5-6, 2019 at IIT-Madras, Chennai, India.
- Expert for evaluation of the **UNMESH 2018 projects of the CESC, Kolkata of the RP-Sanjiv Goenka Group** on 21st July 2018.
- **Jury Member, DAAD Falling Walls Lab India 2018** on 7th April 2018, organized by the **German Academic Exchange Service, New Delhi.**
- **Jury Member, “INNOVACIÓN 2018”** by the **IEM, Kolkata**, 23-25 January 2018.
- **Chairperson** in session titled "6-1 Renewable Energy – I" at **‘American Society of Mechanical Engineers (ASME) 2017 Gas Turbine India Conference’**, December 7-8, 2017 in Bangalore, India.
- Key Resource Person, Energy and Environment Committee, **The Bengal Chamber of Commerce and Industry, Kolkata.**
- Member, Education Committee, **The Bengal Chamber of Commerce and Industry, Kolkata.**
- Invited presentation in **Joint Working Group Seminar on Higher Education and Research Collaboration, India-Norway**, 16th September 2016 at **University of Oslo, Oslo, Norway.**
- Member, Project Management cum Technical Coordination Committee of MSME Technology Facilitation Centre of **Government of West Bengal and Council of Scientific and Industrial Research (CSIR), India.**
- Invited Indian Expert in **Round Table on ‘Applying Energy –Food-Water Nexus Thinking’** on 13th November 2013 of **Research Council UK-India (RCUK-India)** in New Delhi.
- Member of the Core Group of the Jadavpur University for **Indo – European Interactions on Higher Education (responsible for ‘sustainable energy’)** coordinated by **British Council.**
- Expert member of West Bengal Board of Boiler Operation Engineers under the **Directorate of the Boiler, Government of West Bengal.**
- Expert Member of High-Power Committee of **Kolkata Metropolitan Corporation (KMC)** for saving of energy in public utilities.
- Senior research fellow of **‘Indian-European Multi-Level Climate Governance Research Network’** (<http://www.indiaeu->

climategovernance.org/people/senior_researchers/de_sudipta/index.html)

- Editorial advisory board member of **‘Sustainable Energy Developments’** of the **CRC Press** (<http://www.taylorandfrancis.com/books/series/SUED/>).
- Academic partner from India of consortium **‘Explore Energy’** of **Royal Institute of Technology (KTH), Stockholm, Sweden.** (<http://www.exploreenenergy.eu/Partners/IndiaPartners/tabid/1185/language/en-GB/Default.aspx>)
- Member of the *Technical Committee of Energy and Power Systems of IASTED (International Association of Science and Technology for Development), Canada during 2005-2008*
- National expert of ‘Alternate Technology/Clean Technology’ in the database of **Ministry of Environment and Forest, Government of India**

Areas of Research:

Energy and exergy analyses of power and cogeneration plants, Fluidized bed combustion, Gas-solid separation, Biomass cofiring with coal, Simulation of advanced power plants, Energy conservation, Fuel cells, Artificial neural network modeling of energy systems, carbon capture, distributed power and polygeneration. Low temperature waste heat recovery through innovative cycles, integration and optimization of renewable energy systems, Multi Criteria Decision Making (MCDM), Sustainability assessment of energy systems including LCA

Sponsored projects

Title of the Project	Duration (Status)	Own Designation	Other Investigators	Funding Authority (Amount)
‘Enhancing quality assurance management and benchmarking strategies in Indian universities’ (EQUAM-BI)	2017-2020 (completed)	Staff Member from Jadavpur University	With other eight Indian higher education institutes including National Assessment and Accreditation Council (NAAC) and five EU institutes.	European Commission (EURO 7,04,132)
‘Sustainable energy and environment solutions: technology and policy’ (Under call from Norway for collaboration in higher education and research with BRICS Countries and	2018-2020 (completed)	Project Coordinator (India)	From JU and University of Stavanger, Norway	Norwegian Centre for International Cooperation in Education – SIU (3 Lakh Norwegian Kroner)

Japan)				
'Development of efficient biomass conversion routes for biofuel production and utilization'	2017-2020 (completed)	Co-PI	From JU, IIT-Kharagpur (India), University of Eastern Finland (Finland) and Helmholtz Centre for Environmental Research – UFZ (Germany)	EU, DST and DBT (India) (50 Lakhs, Only Indian share)
'Road map for decarbonization of Indian energy system: exploring innovative solutions' Under Indo-Norwegian Cooperation Program 2014 (INCP)	2015-2019 (completed)	Project Coordinator (India)	From JU and University of Stavanger, Norway	UGC (India) and RCN (Norway) (Rs.53,15,760/- , Indian share Total: Rs. 1,06,55,385)
E-QUAL (Enhancing Quality, Access and Governance of Undergraduate Education in India)	2013-2017 (completed)	Member	From four Indian and two EU Universities	European Union (EU) (1 Million Euro)
Indian-European Multi-Level Climate Governance Research Network	2013-2015 (completed)	From three Indian and two EU Universities	Member	Indian Council of Social Science Research (ICSSR, India), the Deutsche Forschungsgemeinschaft (DFG, Germany), and the Netherlands Organisation for Scientific Research (NWO, The Netherlands) (Rs. 1.5 Crore)

Sustainable energy research including energy efficiency	2014 to 2018 (ongoing)	Group Leader	A group of nine faculty members	Department of Science and Technology (DST) –PURSE Program, Government of India (34 lakhs)
Modeling of biomass gasification fuel cell / gas engine integrated CHP system.	2010 to 2013 (Completed)	Group leader	A group of four researchers	DST –PURSE Program, Government of India (7 Lakhs)
Development of ANN simulation and condition monitoring tools for coal based power and cogeneration plants of India	January, 2007 to December, 2007 (Completed)	Asian Principal Investigator (PI)	Prof. Mohsen Assadi (Swedish Principal Investigator)	Swedish Research Council (75,000 Swedish Kronor)
Energy and exergy analyses of combined heat and power generation employing clean coal technology	September, 2002 to August, 2005 (Completed by Mach, 2005)	PI (Under SERC Fast Track Scheme for Young Scientists)	Nil	DST, Government of India (Rs. 2,04,000/-)

Some relevant invited/Keynote/Plenary lectures:

1. 'Sustainable Development: A Brief Overview and Relevance to Our University', Invited talk on the World Environment Day, 5th June 2025, organized by the **Internal Quality Assurance Cell (IQAC) of Jadavpur University, Kolkata.**
2. 'Circular economy for sustainable development: is it 'Swachata' in bigger perspective?', Keynote talk in Science Day celebration of the **Variable Energy Cyclotron Center (VECC), Kolkata, 28th February 2025.**
3. 'ESG: A General Overview', as invited expert for training of professionals of **Damodar Valley Corporation (DVC)**, organized by **The Bengal Chamber, CSR partner of DVC, 20th February 2025, DVC Tower (DVC Headquarters), Kolkata.**
4. 'Sustainable Development and Land restoration, desertification and drought resilience', as the **Chief Guest in celebration of the World Environment Day by the Damodar Valley Corporation (DVC)** at its Headquarters at Kolkata, 5th June 2024.
5. 'Evolution of CCHP and polygeneration: significance, schemes, performance assessment and possible future paths', **Inaugural lecture** in Short term course on "Evolution of CCHP and Thermal Polygeneration (ECTP-2024)" Organized by the **Department of Mechanical Engineering of NIT Hamirpur, 27th to 31st May 2024**
6. 'Distributed energy and sustainability: a few solutions for rural India', in Seminar and Exhibition on 'Energy and sustainability: a social mission' by the **University of Engineering and Management, Kolkata, 16th March 2024.**

7. **Coordinator of the panel discussion** on 'UG Mechanical Engineering Curriculum' in **INCOM 2024**, January 5-6 2024.
8. 'Distributed hybrid renewable energy systems for rural India: exploring optimized sustainable solutions', **Keynote talk at the International Conference on Advances in Energy Research (ICAER) 2023**, IIT-Bombay, 12-14 December 2023.
9. 'Introduction to Sustainable Development and Sustainable Engineering', **INSA Teacher Awardee Lecture** for children of urban government school at Navy Children School, Goa, 27th September 2023.
10. 'Role of mechanical engineers for mitigating climate change', Keynote talk in all India seminar at **The Institution of Engineers (India), Assam State Centre**, Guwahati, 19-20 August 2023.
11. 'Optimum distributed hybrid energy systems as a sustainable solution for poor and remote Indian villages', **Indo-French Workshop on 'Clean and Sustainable Energy Technologies (Infinite)'**, CSIR-National Physical Laboratory, New Delhi, jointly organized by CSIR-Central Mining and Fuel Research, Dhanbad, India and National Centre for Scientific Research (CNRS), Paris, France, 21-24 February 2023.
12. 'Vision East: Green Initiatives led Growth & Employment (Introduction to the theme)', **Interaction Session with Shri Bhupender Yadav, Hon'ble Union Minister of Environment, Forest and Climate Change and Labour and Employment by Indian Chamber of Commerce, Kolkata**, 14th February, 2023.
13. 'Energy conservation: 'why, what, how; global and Indian contexts'', in national seminar on ENERGY CONSERVATION FOR A SUSTAINABLE FUTURE, **Haldia Energy Limited and Haldia Development Authority**, Haldia, 7th February, 2023
14. 'Impact of cofiring biomass with coal in power plants – A techno-economic assessment', in **regional level workshop on " Sustainable co-firing of Biomass in TPP: A step towards Carbon Neutrality, Damodar Valley Corporation**, Kolkata, 20th December, 2022
15. 'Energy conservation: origin, evolution and relevance to Indian industry', 6th Edition of Discussion Forum on Ecological Sustainability in the Industrial Region, **Bengal Chamber of Commerce and Industry**, Haldia, 24th November 2022.
16. 'Is Optimized Distributed Hybrid Renewable Systems a Future Sustainable Energy Solution for India?', **VII International Conference on Sustainable Energy and Environmental Challenges (VII SEEC) of International Society for Energy, Environment and Sustainability (ISEES)**, IIT-BHU, 16-18 December, 2022.
17. 'Sustainable Development: Why and What', **INSA Remote Lecture (2022)** delivered at the **Ramakrishna Mission Ashrama, Cherrapunji (Sohra), Meghalaya** as the **INSA Teacher Awardee for 'INSA remote teaching'**, 25-26 October 2022
18. 'Quantitative analytical methods for decarbonization of the energy, fuel and chemical supply chains', Full day Workshop jointly organized by **Jadavpur University, Texas A&M University and the Bengal Chamber, Kolkata**, 22nd July 2022 (Role: one of the two instructors of the Workshop)
19. 'Is decentralized hybrid system a sustainable option for inclusive energy transition of India?', **Invited Lecture in 2-day National Conference on "Energy Transition and Future Challenges of Indian Power Sector, Kolkata**, 23-24 June 2022.
20. 'Meeting local demand of energy utilities with locally available renewable resources: case studies for remote Indian villages', Invited lecture on **World Environment Day celebration of Institution of Engineers**, India, 5th June 2022.
21. 'Sustainable Energy Research: Exploring Solutions for India', Invited talk for scientists, **C-DAC: Centre for Development of Advanced Computing, Kolkata**, 12th May 2022.
22. 'Future Indian energy: should we step towards decentralisation?', **Centenary Lecture Series (CLS) 2021-22, Mechanical Engineering Department, IEST (previously B.E. College)**, 16th centenary lecture, 12th April 2022.

23. 'Exploring options for decentralized renewable power and other utilities suitable for Indian context', **Research and Industrial Conclave (RIC) 2022, Indian Institute of Technology (IIT) Guwahati**, Assam, India, 22nd January 2022.
24. 'Cofiring biomass pellets/briquettes in coal fired plants: techno-economic-environmental issues' in interaction meet on **'Standardization of Solid Biofuels – Briquettes/Pellets'** at **CSIR-CIMFR, Dhanbad Digwadi Campus**, organized jointly by BIS and CSIR-CIMFR, 11th November 2021.
25. 'On different 2nd law methods: brief introduction of concepts', Inaugural key note talk in **AICTE ATAL FDP Course on 'Exergy and thermoeconomic investigation in power generation systems'** by **Kingston Engineering College, Vellore, Tamil Nadu**, 9-13 August 2021.
26. 'Coaching (WP5): experience of Jadavpur University', **Final Dissemination Conference of EQUAM-BI Consortium (India and EU)**, (virtual mode), 8-9 July 2021.
27. 'Is decentralization from only centralized system is a future sustainable energy solution for India?', **QIP sponsored short term course on Recent Advances in Affordable & Clean Energy (RAACE-2020): A Roadmap to SDG 7**, Department of Electrical & Instrumentation Engineering, **Sant Longowal Institute of Engineering & Technology** (virtual mode), 14-19 September 2020.
28. 'Distributed energy solution potential: a few case studies with agricultural wastes of India' in **workshop on 'Need for Indian Standards for Solid Biofuels'** jointly organized by **Bureau of Indian Standards (BIS, The National Standards Body of India)** and **Central Institute of Mining and Fuel Research of Council of Scientific and Industrial Research (CSIR-CIMFR)**, **CSIR-CIMFR Digwadih Campus, Dhanbad**, 27- 28 January 2020.
29. **'Role of Renewables for Energy Transition'**, Thematic talk in **The American Society of Mechanical Engineers Gas Turbine India (ASME GT India) Conference** at **Indian Institute of Technology (IIT), Madras, Chennai**, 5-6 December 2019.
30. Panelist from academia in industry-academia Panel Discussion on "Importance of Innovation Ecosystem" organized by the **Confederation of Indian Industry (CII)**, Eastern Region at **ITC Sonar, Kolkata** on 16th March 2019.
31. 'Distributed energy solution: a few case studies with agricultural wastes of India', in **National Conference on Waste to Energy Conversion (NCWEC)** during 28th-29th December 2018, organized by **IIT Guwahati and NIT-Mizoram at Aizawl**.
32. 'Evaluation of advanced coal-fuelled electricity generation technologies', in regional workshop on "Indian Power Sector: Supporting a Low Carbon Transition" organized by **NITI Aayog, India in association with International Energy Agency (IEA) and Asian Development Bank (ADB)** on 23rd April 2018 at **Hotel Lalit Great Eastern, Kolkata**.
33. **Institute expert lecture: 'Sustainable energy solution through efficient integration and utilizing local renewable resources: Indian context'** at **Motilal Nehru National Institute of Technology, Allahabad** on 1st December 2017.
34. 'Sustainable energy: introduction of the concept', in interdisciplinary post graduate course **'Master in Energy, Environment and Society'** (<https://www.uis.no/studies/master-s-programmes-in-english/energy-environment-and-society/>) at the **University of Stavanger, Norway** on 26th September, 2017 under **Indo-Norwegian Cooperation Program**.
35. 'Sustainable energy: a transformational journey' at the **10th Annual Energy and Environment Conclave of the Bengal Chamber of Commerce and Industry (BCCI)** at **ITC-Sonar, Kolkata**; (<http://www.bengalchamber.com/environment-and-energy-conclave.html>) during 23-24 August 2017.
36. 'Sustainable energy research: brief overview of work of our group', **University of Bologna, Italy**, April 11, 2017.

37. 'Is distributed poly-generation utilizing local resources a sustainable solution for India?', **1st International Conference of the Society for Energy Environment and Sustainability on Sustainable Energy and Environmental Challenges**, 26-28 February, 2017, Mohali, India.
38. 'Overview of Indian Energy Sector' in Indo-Norwegian Workshop: Decarbonization roadmap for India, University of Stavanger, Norway, 5th October 2016. (<http://www.uis.no/news/conferences/decarbonization-roadmap-for-india/>).
39. 'From general basics up to the advanced H2-IGCC: a very brief overview of the integrated gasification combined cycle (IGCC)' in Int. Workshop on ASPECTS OF FLUIDIZED BED TECHNOLOGY at IIT, Guwahati, July 9-10, 2016.
40. 'Future of Undergraduate Education in India', in concluding panel discussion of a 2-day Int. Conf. on "Enabling Pedagogies: Higher Education in India" funded by EU, Shiv Nadar University, Greater Noida, March 26-27, 2015.
41. 'Water-Energy Nexus: Searching the Dots', in Int. Conference on Water-Energy Nexus: Connecting the dots funded by the Norwegian Ministry of Foreign Affairs and organized by The Energy and Resources Institute (TERI), New Delhi, September 2-3, 2014.
42. 'Sustainable Energy: Some Facts Some Confusion', Annual Energy and Environment Conclave (2014) of Bengal Chamber of Commerce and Industry (BCCI), ITC Sonar, Kolkata, August 29-30, 2014.
43. 'Electricity from fossil fuels: present status and future possibilities' Keynote lecture, ICAMB 2012, Vellore Institute of Technology (VIT) University, India on 11th January 2012.
44. 'Sustainable energy solutions: a very brief overview of our recent activities' Centre for Sustainable Energy Solutions, University of Stavanger, Norway on 13th June 2011.
45. 'For improved energy solution: a brief overview of our activities,' Department of Energy Technology, Royal Institute of Technology (KTH), Stockholm, Sweden, September 14, 2010.
46. 'Towards sustainable energy systems: brief overview of some results,' Department of Energy Systems, Technical University of Munich, Munich, Germany, May 20, 2010.
47. 'Advanced coal-based power and cogeneration' in Indian National Clean Coal technology Mission Meeting at Hyderabad on 02nd April 2010.
49. 'Modelling, analysis and simulation of energy systems: a brief review of my research', in the Institute of Energy Technology, Technical University of Berlin, Berlin, Germany on 23rd July, 2007.

Some relevant conference, session and courses organized:

1. **Member**, Scientific Advisory Committee, 9th International Conference on Advances in Energy Research (ICAER) 2023 of IIT Bombay, 12-14 December 2023.
2. **Session Chair of Session 6-4: Renewable Energy (Solar, Wind) of The American Society of Mechanical Engineers Gas Turbine India (ASME GT India) Conference at Indian Institute of Technology (IIT), Madras, Chennai, 5-6 December 2019.**
3. Nominated by the **American Society of Mechanical Engineers (ASME)** to organize at Jadavpur University in November 2018: **American Society of Mechanical Engineers (ASME) GT India Student Seminar in the Eastern Zone.**
4. Organized (as Indian Coordinator of UTFORSK project) with the **Bengal Chamber of Commerce and Industry (BCCI) and University of Stavanger, Norway under UTFORSK Program:** 'An interactive workshop on "Energy system in transition" at Hotel Hyatt Regency, Kolkata on 2nd May 2018.

5. Organized (as Indian Coordinator of INCP project) with the **Bengal Chamber of Commerce and Industry (BCCI) and University of Stavanger, Norway under Indo-Norwegian Cooperation Program: 'Knowledge forum: bridging industry, academia'** (<https://news.webindia123.com/news/articles/india/20171227/3239448.html>) on 27th December, 2017 at the BCCI, Kolkata.
(<https://www.youtube.com/watch?v=NfRfu2jAaYk#action=share>)
6. Organized a lecture series (over one-year) on 'Sustainability of Indian Energy Sector' jointly with **Bengal Chamber of Commerce and Industry (BCCI) and European Business and Technology Centre (EBTC) with World Bank funding.** (http://teqip.jdvu.ac.in/for_website/web_lecture.html).
7. Convener, Technical committee, 5th **ISHMT-ASME Heat and Mass Transfer Conference** at Kolkata, India, January, 3-5, 2002.

Any other information:

Regular reviewer of several reputed International Journals in the field of energy.

M.Tech/PhD Examiner of several reputed Institutes including IITs (Kharagpur, Guwahati, Bombay, Delhi etc.), IEST, Shibpur, Monash University, Australia etc.

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RELEVANT FULL LIST OF PUBLICATIONS OF DR. SUDIPTA DE

A) Edited International Journals:

1. **De, S. (Lead guest editor)** and Das, S. (Guest Co-editor) (2024): Special issue on **Role of AI and IoT for Improved Sustainability of Distributed Energy Systems and Storage** of the international journal **Discover Energy (Springer)** (ongoing).
2. **De, S. (Lead guest editor)** and Chowdhury, R. (Guest Co-editor) (2023): Special issue on **Anaerobic Digestion and Sustainable Integrated Biorefinery** of the international journal **Sustainability (MDPI)**.
3. **De, S. (Lead guest editor)**, Nikpey, H. and Saha, C. (Guest co-editors) (2023): Special Issue on **Energy Transition and Sustainability** of the international journal **Sustainability (MDPI)**.
4. Chattopadhyay, H and **De, S. (joint guest editors)** (2022): **Special Issue on 'Recent Advances in Energy and Sustainable Development'**, **IEI-C Journal (Springer)**.

B) Texts/ References/ Edited Books:

1. Nag, P.K. and **De, S.** (2025): **Engineering Thermodynamics 7th Ed.**, McGraw Hill Education (ongoing, contract signed with the publisher to deliver in August 2025).
2. **De, S.** and Mondal, S. (2024): **Waste Heat Recovery, its Utilization and Performance Assessment: Fundamentals and Application (Elsevier)**, ISBN: 9780443315763 (ongoing, will be published in Oct., 2025).
3. **De, S.** and Roy, P.C. (2024): **Advances in Energy and Sustainability (Springer)**, ISBN 978-981-97-7308-4
4. **De, S.**, Agarwal, A. and Kalita, P. (2024): **Challenges and Opportunities of Distributed Renewable Power (Springer)**, ISBN 978-981-97-1405-6.
5. **De, S.** (2021): **Nag's Power Plant Engineering, 5th Ed.** McGraw Hill Education, ISBN-13: 978-93-5460-005-0; ISBN-10: 93-5460-005-0 (Published on 7th July 2021)
6. **De S.**, Bandyopadhyay S, Assadi M, Mukherjee D.A (2018): **Sustainable Energy Technology and Policies- A Transformational Journey (Vol 1); book doi: 10.1007/978-981-10-7188-1 (Springer)**
7. **De S.**, Bandyopadhyay S, Assadi M, Mukherjee D.A (2018): **Sustainable Energy Technology and Policies- A Transformational Journey (Vol 2); book doi: 10.1007/978-981-10-8343-8 (Springer)**
8. Gautam A, **De S.**, Dhar A, Gupta JG, Pandey A (2018): **Sustainable Energy and Transportation Technologies and Policy; book doi: 10.1007/978-981-10-8343-8 (Springer)**
9. **De, S.** (2011): **Energy and exergy analyses of clean coal technology**, ISBN 978-3-8454-1135-4, **AV Akademikerverlag GmbH & Co. KG, Germany**.

C) Invited Book chapters:

1. Sarkar, S. and De, S. (2025): 'Novel Nanomaterials and MOFs for Hydrogen Storage', **Encyclopedia of Fuel Processing Technology (Elsevier)**, edited by Mohammad Reza Rahimpour (ongoing).
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4. Chatterjee, K., Saha, S. and **De, S.*** (2025): 'Carbon Nanotube Membranes for Hydrogen Filtration', **Encyclopedia of Fuel Processing Technology (Elsevier)**, edited by Mohammad Reza Rahimpour (ongoing).
5. Sengupta, I. and **De, S.*** (2025): 'Carbon Nanomaterials in Hydrogen Storage Systems', **Encyclopedia of Fuel Processing Technology (Elsevier)**, edited by Mohammad Reza Rahimpour (ongoing).
6. Das, S. and **De, S.*** (2025): 'Hydrogen's Role in Decarbonizing the Transportation Sector', **Encyclopedia of Fuel Processing Technology (Elsevier)**, edited by Mohammad Reza Rahimpour (ongoing).
7. Mondal, S. and **De, S.*** (2024): 'Geothermal Energy Application in Power Generation', In: Rahimpour, M. R. (ed.) **Encyclopedia of Renewable Energy, Sustainability, and the Environment**, vol. 2, pp. 147–160. US: **Elsevier**. <http://dx.doi.org/10.1016/B978-0-323-93940-9.00161-4>

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11. Kavousi, F., Bose, A. and **De, S.*** (2024): '3.7 - Hydrogen separation using ceramic membranes', **Encyclopedia of Renewable Energy, Sustainability, and the Environment (Elsevier)**, edited by Mohammad Reza Rahimpour. eBook ISBN: 9780323939416
12. Mondal, S. and De, S.* (2024): 'Cogeneration and trigeneration applications of natural gas', **Adv. in Nat. Gas Vol. 7 - Natural Gas Products and Uses (Elsevier)**, edited by Mohammad Reza Rahimpour, Paperback ISBN: 9780443192272; eBook ISBN: 9780443192289
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18. Mondal, S. and **De, S.*** (2022): 'Polygeneration Systems in Industry', Chapter 11 in **Polygeneration systems: Design, processes and technologies (Elsevier)**, Editors: Francesco Calise, Laura Vanoli, Massimo Dentice d'Accadia, Maria Vicidomini, 411-430. <https://doi.org/10.1016/B978-0-12-820625-6.00002-5>
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D) Articles in international journals:

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2. Sabir, Sk, Mondal S. and **De, S.** (2025): 'Enhanced waste heat recovery from a marine diesel engine with multi-pressure transcritical regenerative ORCs for reduced carbon emissions', **Energy (Elsevier)** (under review).
3. Das, S., Dutta, R. and **De, S.*** (2025): 'Integrated assessment of supply risks, techno-economic and environmental factors for sustainable hybrid energy systems with emerging storage technologies: an MCDM approach', **Renewable and Sustainable Energy Reviews (Elsevier)** (under review).
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5. O'Sheaa, R., Hickey, D.T., Das, S., Lin, R., Bose, B., **De, S.** and Murphy, J.D. (2025): 'A multi-criteria decision making approach to prioritise scenarios for decarbonisation and the management of by-products via anaerobic digestion at a several distilleries', **Sustainable Production and Consumption (Elsevier)** (under review).
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*Corresponding author

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