

## Prof Dr. Sadhan Kumar Ghosh\_ Bio data

<b>Present Position:</b> Director General, Sustainable Development & Circular Economy Research Centre, ISWMAW; & President & Founder, International Society of Waste Management, Air and Water, Kolkata 700041, India	Website: <a href="http://www.sadhankghosh.com">www.sadhankghosh.com</a>	
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ORCID 0000-0002-9128-5202	Research Date: <a href="https://www.researchgate.net/profile/Sadhan-Ghosh">https://www.researchgate.net/profile/Sadhan-Ghosh</a>	
<b>Immediate Past Position till 31.10.2022:</b> Ex-Dean, Faculty of Engineering & Technology; Professor & Head, Department of Mechanical Engineering, Jadavpur University, India <b>Former All India responsibility (Nov 2009-Oct 2010):</b> Director, Central Board for Workers Education, Govt of India, Ministry of Labour & Employment, New Delhi.		

### Contents

Section	Description	Page
	<b>Summary CV</b>	2
1	<b>EDUCATION</b>	3
2	<b>PROFESSIONAL EXPERIENCE</b>	3
3	<b>EDITOR OF JOURNALS</b>	3
4	<b>TEACHING EXPERIENCE</b>	3
5	<b>PATENTS</b>	4
6	<b>PUBLICATIONS OF BOOKS</b>	4
7	<b>PUBLICATIONS OF EDITED VOLUMES OF BOOKS</b>	5
8	<b>PUBLICATION: Peer-Reviewed Journal Articles &amp; Proceedings</b>	8
9	<b>PhD &amp; PG THESES GUIDANCE:</b>	25
9	<b>PROFESSIONAL REGISTRATION/ CERTIFICATIONS</b>	25
10	<b>SPECIAL TRAINER</b>	25
11	<b>MAJOR RESEARCH PROJECT</b>	26
12	<b>INVITED LECTURES DELIVERED</b>	30
13	<b>SESSION CHAIRED</b>	37
14	<b>CONSULTANCY SERVICES PROVIDED TO INDUSTRIES</b>	38
15	<b>CONFERENCE ATTENDED</b>	39
16	<b>SEMINAR / CONFERENCE / SYMPOSIUM ORGANIZED</b>	41
17	<b>OUTSTANDING ACHIEVEMENT</b>	43
18	<b>SERVICES AND AFFILIATIONS/RECOGNITIONS</b>	47
19	<b>Summary CV</b>	2

## Summary CV : Prof. Dr. Sadhan Kumar Ghosh, PhD (Engg.),

Prof. Dr. Sadhan Kumar Ghosh, PhD (Engg.), Director General, Sustainable Dev. & Circular Economy Research Centre, ISWMAW, India and the Founder Advisor, Centre for Sustainable Development & Res. Efficiency Management, Jadavpur University, Kolkata, India. He is a renowned personality in the field on Waste Management, Circular Economy, Green Manufacturing, Supply Chain Management, Sustainable Development, Co-processing of Hazardous & Municipal Solid Waste, Plastics Waste management & recycling, E-waste management & recycling, management system standards (ISO) and TQM having collaboration in more than 30 countries. He started his career in the multinational industries in Larsen & Toubro Ltd., and The Gramophone Co. of India Ltd.

He served as the Dean of Faculty of Engineering and Technology, Head and Professor in mechanical engineering at Jadavpur University, India and the Director, CBWE, Ministry of Labour and Employment, Govt. of India. Prof Ghosh is the founder Chairman of the IconSWM; President of the International Society of Waste Management, Air and Water (ISWMAW) and the chairman of the Indian Congress on Quality, Environment, Energy and Safety Management Systems (ICQESMS). He received several awards in India and foreign countries including the Distinguished Visiting Fellowship 2012 by the Royal Academy of Engineering, UK and The Boston Pledge & NABC 2006 Award for "The most eco-friendly innovation" for conversion of plastics & Jute wastes to Wealth conferred by the North American Bengali Conference 2006, Houston, Texas in the ESP/50K Business Plan Competition. He received three patents in India and Bangladesh on "eco-friendly plastics recycling machine and the process there of" [Patent no.202532 dated 02/03/2007] and "Automatic High Speed Jute Ribboning Machine" [Patent no. 1005146 dated 17/02/2014]. He wrote ten books, more than 50 edited volumes, more than 260 national and international articles and book chapters. He is the Editor-in-Chief of the Journal of Solid Waste Technology & Management, and Associate Editor of Journal of Material Cycles and Waste Management. He developed & initiated "Policy on Anti-Plagiarism, Jadavpur University, 2019". He has been the Principal Investigator of more than 20 international and 20 national research projects.

In International arena, Prof. Ghosh international consultant/expert of the United Nations Centre for Regional Development (UNCRD)/DESA), Asian Productivity Organization (APO), Japan, China Productivity Council (CPC), Taiwan, The Institute for Global Environmental Strategies (IGES), Japan and SACEP, Sri Lanka. His has been Project Leader in more than 22 international and 20 national research projects. He has been serving as the member of international steering committees and editorial boards and served as the Keynote/Plenary speaker in international conferences in several countries. He has initiated the movement for worldwide Sustainable Waste Management and research with partners in many countries through the *Consortium of Researchers in International Collaboration* (CRIC). He was the convener of ISO TC 61 WG2, member in the Indian mirror committee of ISO TC 323 - Circular Economy, ISO/TC 297 - Waste collection and transportation .Management and ISO TC 207- Environment Management. He was a lead assessor & trainer of ISO 9001, ISO 14001, OHSAS 18001, HACCP 22001. He is the Chair Elect of 13<sup>th</sup> IconSWM-CE 2023. He is available at: [sadhankghosh9@gmail.com](mailto:sadhankghosh9@gmail.com). For details, please visit : [www.sadhankghosh.com](http://www.sadhankghosh.com) Research Gate: <https://www.researchgate.net/profile/Sadhan-Ghosh> and ORCID 0000-0002-9128-5202.

## 1 EDUCATION

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**Doctor of Philosophy:** Engineering, Jadavpur University, India, 2001

**Master of Mechanical Engineering:** Production Engineering, Jadavpur University, India, July 1983

**Bachelor of Engineering:** Mechanical Engineering, Jadavpur University, India, July 1980

**Ph.D. Dissertation:** Some Studies of Tribological Behaviour of materials in Cryogenic condition, Vacuum and normal temperature.

**M.M.E. Thesis:** Studies of Tribological Behaviour of metals in normal and Vacuum condition,

**Research Areas:** Waste Management, Circular Economy, Recycling, Coprocessing, Supply Chain Sustainability, Green Manufacturing, SMEs Improvement Projects, ISO Standards, TQM, Quality Environmental Energy and Occupational Health & Safety Management Systems, Food Safety Management System, Sustainable Development.

## 2 PROFESSIONAL EXPERIENCE

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**Director, Sustainable Development & Circular Economy Research Centre, ISWMAW – November 2022 – till date**

**Dean, Faculty of Engineering and Technology, Jadavpur University, Kolkata, India – 31.7.2019 to January 31<sup>st</sup>, 2020.**

**Professor:** Mechanical Engineering Department, Jadavpur University, India, 8.8.1998 – 31.10.2022

**Director: (on lien) Central Board of Workers Education, Government of India, Nagpur, November 2009 – October 2010.**

**Reader: Mechanical Engineering Department, Jadavpur University, India, August 1990 – August 1999**

**Lecturer: Mechanical Engineering Department, Jadavpur University, India, March 1984–Aug. 1990.**

**Visiting Scholar for teaching in Civil Engineering, Covenant University, Nigeria, Since 2020 till date**

**Visiting Professor:** Department of Operations Management, Aston Business School, Aston University, Birmingham, UK, March 2007 – April. 2007.

**Development Engineer:** The Gramophone Company of India Ltd. July 1981 – Aug. 1983.

**Graduate Engineer Trainee:** Larsen & Toubro Ltd., - Orissa Sponge Iron Plant, Aug.1980 – Feb 1981.

## 3. EDITOR OF JOURNALS

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- **Editor-in-Chief, Journal of Solid Waste Technology and Management (ISWMAW Publication)**
- **Associate Editor, IJMCWM (SAGE): International Journal of Materials Cycle and Waste Management.**

## 4. TEACHING EXPERIENCE

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**Teaching at Jadavpur University, India**

Sustainable Development and Low Carbon Technology: Interdisciplinary UG level (2020-2022)

Manufacturing Processes (undergraduate level): (1984-1995)

Machining Technology and Metrology (undergraduate level): (2017 – 2019)

Industrial Management (undergraduate level): (2004 – 2020)

Workshop Practice (undergraduate level with workshop): (1995 – 2019)

Metallographic Laboratory (undergraduate level with laboratory): (1990 – 2000)

Waste Management (Post Graduate level): (2007 – 2018)

Project Management (Post Graduate level): (2010 – 2018)

Integrated Management Systems (Post Graduate level): (2010 – 2014)

Total Quality Management (Post Graduate level): (2006 – 2018 Contd.)

**Teaching at Calcutta University, India,** Indian Institute of Social Welfare & Business Management; Environment Management System: ISO 14000 (Graduate level): 1999- 2002

**Teaching at Nigeria, Covenant University,** Canaan land Km 10, Idiroko Road, P.M.B 1023, Ota, Ogun State, Nigeria as International Professor in Civil Engineering

Research Methodology (CVR 811/911) – For PG and PhD courses

Cost engineering (EDS512) – For undergraduate courses

Waste Resources Infrastructure (CVW 816) – For PG course in Civil Engineering courses

Civil Engineering Seminar (CVE 513) – For undergraduate courses

Advanced Simulation and Modelling (CVS915) – For Post graduate courses

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## 5. PATENTS

1. Patent no.306869, dated 05/02/2019, application ref. 32/KOL/2010: Approved Indian patent: “Automated High Speed Jute Ribboning Machine and the process there of”.
2. Patent no. 1005146 dated 17/02/2014; Government of Bangladesh has granted the patent on Innovating “Automated high speed Jute Ribboning machine and process there of”.
3. Patent no.202532 dated 02/03/2007; Government of India, granted Patents for the invention entitled - “Improved Eco Friendly Recycling process of post-consumer waste plastics & devices thereof” on 02.03.2007. Patent number: 202532:(772/KOL/2004) for 20 years from 30.11.2004 in accordance with the provision of the Patent Act, 1970. The Department of Environment, Government of West Bengal through Indo-Canadian Fund (ICF), announced subsidy of 50% cost for incorporation of patented technology for the plastics recyclers of Kolkata in 2006.

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## 6. PUBLICATIONS OF BOOKS

### Book

1. Sustainable Management of Wastes Through Co-processing by Sadhan Kumar Ghosh, Ulhas V. Parlikar, & Kare H Karstensen. | Nov 16, 2021, Springer Nature, Singapore, 2022
2. A guide to Total Quality Management, Oxford Publishing House, First Published in 1996, 2nd, 3rd, and 4th Edition, 2005.
3. Introduction to ISO 9000 and TQM, Oxford Publishing House, First Published in 1994, 2nd, 3rd, and 4th Edition, 2007.
4. ISO 9001 Auditing, Oxford Publishing House, First Published in 1998.
5. ISO 14001 Auditing, Oxford Publishing House, First Published in 1997.
6. Waste Management, CQMS, JU, published in 2009.
7. Lectures on Manufacturing Processes, Oxford Publishing House, 1987.
8. Puri Nou Avijan (Sea Expedition by Country boat to Puri), SPM Publisher, 1982
9. Waste to wealth (Bengali), 2007, CQMS, Jadavpur University
10. Achieving excellence through participation of people. 2005, Oxford Publishing House.
11. TQM for premium products in Postal Services, Sept 2003, Oxford Publishing House.
12. Introduction to BS 5750 & ISO 14001, 1995, Oxford Publishing House.

## 7. PUBLICATIONS OF EDITED VOLUMES OF BOOKS

AS EDITOR [<http://sadhankghosh.com/books-as-editor/> ]

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1. [In press]: Circular Economy Adoption - Catalysing Decarbonization through Policy Instruments, by Sadhan Kumar Ghosh and Sannidhya Kumar Ghosh, Publisher Springer Nature Singapore. (Expected to release by Nov. 2023)
2. The Circular Economy – Meeting Sustainable Development Goals, Publisher Royal Society of Chemistry, UK. Published in September 2023)
3. Circular Economy: Recent Trends in Global Perspective; by Sadhan Kumar Ghosh and Sannidhya Kumar Ghosh | Nov 23, 2021; Springer Nature, Singapore.
4. Circular Economy: Global Perspective; by Sadhan Kumar Ghosh | Nov 1, 2019; Springer Nature, Singapore.
5. Solid Waste Policies and Strategies: Issues, Challenges and Case Studies; by Sadhan Kumar Ghosh | Mar 10, 2020; Springer Nature, Singapore.
6. Urban Mining and Sustainable Waste Management by Sadhan Kumar Ghosh | Mar 17, 2020; Springer Nature, Singapore.
7. Waste Management as Economic Industry Towards Circular Economy by Ghosh and Sadhan Kumar Ghosh | Mar 13, 2020; Springer Nature, Singapore.
8. Recent Trends in Waste Water Treatment and Water Resource Management by Sadhan Kumar Ghosh, Papita Das Saha, et al. | Feb 4, 2020; Springer Nature, Singapore.
9. Circular Economy and Fly Ash Management by Sadhan Kumar Ghosh and Vimal Kumar | Oct 25, 2019; Springer Nature, Singapore.
10. Energy Recovery Processes from Wastes by Sadhan Kumar Ghosh | Sep 9, 2019; Springer Nature, Singapore.
11. Sustainable Waste Management: Policies and Case Studies: 7th IconSWM—ISWMAW 2017, Volume 1 by Sadhan Kumar Ghosh | Jun 21, 2019; Springer Nature, Singapore.
12. Waste Valorisation and Recycling: 7th IconSWM—ISWMAW 2017, Volume 2 by Sadhan Kumar Ghosh | Jan 29, 2019; Springer Nature, Singapore.
13. Waste Water Recycling and Management: 7th IconSWM—ISWMAW 2017, Volume 3 by Sadhan Kumar Ghosh | Jan 24, 2019; Springer Nature, Singapore.
14. Waste Management and Resource Efficiency: Proceedings of 6th IconSWM 2016 by Sadhan Kumar Ghosh | Sep 21, 2018; Springer Nature, Singapore.
15. Utilization and Management of Bioresources: Proceedings of 6th IconSWM 2016 by Sadhan Kumar Ghosh | Oct 10, 2017; Springer Nature, Singapore.



16. Bioresource Utilization and Bioprocess by Sadhan Kumar Ghosh, Ramakrishna Sen, et al. | Mar 27, 2020; Springer Nature, Singapore.
17. Biomethane through Resource Circularity: Research, Technology and Practices (The Circular Economy in Sustainable Solid and Liquid Waste Management) Part of: The Circular Economy in Sustainable Solid and Liquid Waste Management (2 books) | by Sadhan Kumar Ghosh, Michael Nelles, et al. | Dec 30, 2021, CRC Press, Taylor & Francis Group
18. Advances in Thermal Engineering, Manufacturing, and Production Management: Select Proceedings of ICTEMA 2020 (Lecture Notes in Mechanical Engineering)Part of: Lecture Notes in Mechanical Engineering (268 books) | by Sadhan Kumar Ghosh, Koushik Ghosh, et al. | Jul 1, 2021; Springer Nature, Singapore.
19. Effective Waste Management and Circular Economy: Legislative Framework and Strategies (The Circular Economy in Sustainable Solid and Liquid Waste Management)by Sadhan Kumar Ghosh , Sasmita Samanta, et al. | Sep 7, 2022 CRC Press, Taylor & Francis Group
20. Health Care Waste Management and COVID 19 Pandemic: Policy, Implementation Status and Vaccine Management by Sadhan Kumar Ghosh and Pariatamby Agamuthu | Nov 12, 2022; Springer Nature, Singapore.
21. Circular Economy in the Construction Industry (The Circular Economy in Sustainable Solid and Liquid Waste Management) Part of: The Circular Economy in Sustainable Solid and Liquid Waste Management (2 books) | by Sadhan Kumar Ghosh, Sannidhya Kumar Ghosh, et al. | Dec 22, 2021 CRC Press, Taylor & Francis Group
22. Emerging Technologies for Waste Valorization and Environmental Protection by Sadhan Kumar Ghosh, Chiranjib Bhattacharya, et al. | Aug 1, 2020; Springer Nature, Singapore.
23. “Waste Management and Resource Efficiency”, *Proceedings of 6th IconSWM 2016*, January 2019 ; *Springer Publication*, ISBN 978-981-10-7290-1;
24. *Sustainable waste management: Policies & Case Studies : Proceedings of 7th IconSWM 2017*, Due in March 2019, *Springer Publication*.
25. Waste Water Recycling and Management: *Proceedings of 7th IconSWM 2017*, Dec 2018, *Springer Publication*.
26. Waste Valorisation and Recycling Technology: *Proceedings of 7th IconSWM 2017*, January 2019, *Springer Publication*.
27. Recent Trends in Waste Water Treatment and Water Resource Management, to be release in May 2019.
28. Bio-resource Utilization and Bioprocess, to be release in May 2019. *Springer Publication*
29. Urban Mining and Sustainable Waste Management, to be release in May 2019. *Springer Publication*
30. Emerging Technologies for Waste Valorization and Environmental Protection, to be release in May 2019. *Springer Publication*
31. Solid Waste Policies and Strategies: Issues, Challenges and Case Studies, to be release in May 2019. *Springer Publication*
32. Energy Recovery Processes from Wastes, to be release in May 2019. *Springer Publication*
33. Waste Management as Economic Industry towards Circular Economy,, to be release in May 2019. *Springer Publication*
34. *Proceedings of ICQESMS 2002*.
35. *Proceedings of ICQESMS 2004*.
36. *Proceedings of ICQESMS 2006*.
37. *Proceedings of ICQESMS 2007*.
38. *Proceedings of seminar on Packaged Drinking Water 2003*.
39. *Proceedings of National Appreciation course on ISO 9001 & TQM 1993*
40. *Proceedings of National Appreciation course on ISO 9001 & TQM 1994*

41. Proceedings of National Appreciation course on ISO 9001 & TQM 1995
42. Proceedings of National Appreciation course on ISO 9001 & TQM 1996
43. Proceedings of National Appreciation course on ISO 14001 & BS 5750, 1996
44. Proceedings of National Seminar of Water Management 2007
45. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2009
46. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2011
47. Proceedings of Waste MANAGEMENT, 2012
48. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2014
49. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2015
50. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2016
51. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2017
52. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2018
53. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2019
54. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2020
55. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2021
56. Proceedings of Waste MANAGEMENT AND Resource Efficiency, 2022

## 8. PUBLICATION: Peer-Reviewed Journal Articles

For details, please visit : [www.sadhankghosh.com](http://www.sadhankghosh.com)

Research Gate: <https://www.researchgate.net/profile/Sadhan-Ghosh> and

ORCID 0000-0002-9128-5202.

1. Sadhan Kumar Ghosh, Tatiana S. Smirnova, Vladimir A. Maryev, Dineshkumar M (2023), Remediation Process in Landfill In Arctic Region - A Case Of Circular Economy, Journal of Solid Waste Technology and Management, 2023, Vol. 49, Issue 1, pp 14- 31.
2. Mukhopadhyay, Poulami & Ghosh, Sadhan & Sarkar, Sutripta. (2023). Implementation of microbe-based metal nanoparticles in water remediation. Environmental Applications of Microbial Nanotechnology, Environmental Applications of Microbial Nanotechnology, Emerging Trends in Environmental Remediation, 2023, Pages 183-197, (pp.183-197); 10.1016/B978-0-323-91744-5.00008-4.
3. Dickella Gamaralalage PJ, Ghosh S K, Onogawa K. (2022), Source separation in municipal solid waste management: Practical means to its success in Asian cities. Waste Management & Research. 2022; 40(3):360-370. doi:10.1177/0734242X211049606.
4. Baidya R, Kumar Ghosh S. (2022), Disposal of hazardous industrial waste in cement kiln – A pilot study of acid tar sludge. Waste Management & Research. 2022; 40(3):294-305. doi:10.1177/0734242X211055544.
5. Biswajit Debnath, Rihab El-Hassani, Amit K. Chattopadhyay, T. Krishna Kumar, Sadhan K. Ghosh, Rahul Baidya,(2022), Time evolution of a Supply Chain Network: Kinetic modeling, Physica A: Statistical Mechanics and its Applications, Volume 607, 2022, 128085, ISSN 0378-4371, <https://doi.org/10.1016/j.physa.2022.128085>.
6. Baidya R, Ghosh S K. (2020), Co-processing of industrial trade rejects in cement plant. Waste Management & Research. 2020;38(12):1314-1320. doi:10.1177/0734242X20936766
7. Baidya R, Debnath B, Ghosh S K, Rhee S-W. (2020), Supply chain analysis of e-waste processing plants in developing countries. Waste Management & Research. 2020;38(2):173-183. doi:10.1177/0734242X19886633
8. Sadala S, Dutta S, Raghava R, Jyothsna TS, Chakradhar B, Ghosh S K (2019), Resource recovery as alternative fuel and raw material from hazardous waste. Waste Management & Research. 2019;37(11):1063-1076. doi:10.1177/0734242X19854124
9. Baidya, R., Debnath, B., & Ghosh, S. K. (2019). Analysis of E-waste supply chain framework in India using the analytic hierarchy process. In Waste Management and Resource Efficiency: Proceedings of 6th IconSWM 2016 (pp. 867-878). Springer Singapore.



10. Rahul Baidya & Sadhan Kumar Ghosh (2018), Low carbon cement manufacturing in India by co-processing of alternative fuel and raw materials, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, DOI: 10.1080/15567036.2018.1555630.
11. De, D., Chowdhury, S., Dey, P. K., & Ghosh, S. K. (2018). Impact of Lean and Sustainability oriented innovation on Sustainability performance of Small and Medium Sized Enterprises: A Data Envelopment Analysis-based Framework. *International Journal of Production Economics*. <https://doi.org/10.1016/j.ijpe.2018.07.003>.
12. Debnath, B., Chowdhury, R., Ghosh, S. K. (2018). Sustainability of metal recovery from e-waste. *Frontiers in Environmental Science and Engineering*, 12(6):2. (DOI: 11007/s11783-018-1044-9) (Impact Factor: 1.716).
13. Sadhan Kumar Ghosh, P. Agamuthu, (2018). Circular economy: The way forward, Editorial, *Waste Management & Research* 2018, Vol. 36(6) 481-482; DOI: 10.1177/0734242X18778444 [journals.sagepub.com/home/wmr](https://journals.sagepub.com/home/wmr).
14. Ipsita Saha, Amit Kundu, Sadhan Kumar Ghosh “Organizational Perspective of Critical Success factor to establish ERP as a Sustainable Solution”, *The Journal of Army Institute of Management Kolkata*, Kindler Volume XVII January - June 2018, PP 150–156.  
**2017-18**
15. Ghosh Sadhan Kumar (2017), *Country Chapter- State of the 3Rs in Asia and the Pacific*. Tokyo: United Nations for Regional Development (UNCRD).
16. Francesco Di Maria, Federico Sisani, Stefano Contini, **Sadhan K. Ghosh**, (2018). Impact of different schemes for treating landfill leachate, *Waste Management* 71 (2018) 255–266.
17. Ghosh, A., Debnath, B., **Ghosh, S. K.**, Das, B., & Sarkar, J. P. (2018). Sustainability analysis of organic fraction of municipal solid waste conversion techniques for efficient resource recovery in India through case studies. *Journal of Material Cycles and Waste Management*, 1-17. (**Impact Factor: 1.604**).
18. Dasgupta, Raktim & Mukhopadhyay, Arup & Ghosh, Sadhan. (2017). Reduction of lead time through curtailment of cycle time of a supplier-a case example. *International Journal of Engineering Trends and Technology*. Vol. 54. 233-251. 10.14445/22315381/IJETT-V54P233.
19. Baidya, R., Dey, P. K., Ghosh, S. K., & Petridis, K. (2018). Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach. *The International Journal of Advanced Manufacturing Technology*, 94, 31-44.
20. Debnath, B., Chowdhury, R., **Ghosh, S. K.** (2018). Sustainability of metal recovery from e-waste. *Frontiers in Environmental Science and Engineering*, 12(6):2. (DOI: 10.1007/s11783-018-1044-9) (**Impact Factor: 1.716**) [Online publication awaited].  
  
**2016-17**
21. **Ghosh, S. K.**, Debnath, B., Baidya, R., De, D., Li, J., Ghosh, S. K., Zheng, L., Awasthi, A.K., Liubarskaia, M.A., Ogola, J.S. & Tavares, A. N. (2016). Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and

South Africa (BRICS) nations. *Waste Management & Research*, 34(8), 693-707. (Impact Factor: 1.9) (**Editor's Choice Paper for August 2016**).

22. Amit K. Chattopadhyay, Prasanta K. Dey, **Sadhan K. Ghosh**, (2017). Dynamics of spatial heterogeneity in a landfill with interacting phase densities – A stochastic analysis, *International Journal of Applied Mathematical Modelling*. *Applied Mathematical Modelling*, <https://doi.org/10.1016/j.apm.2016.08.026>; Volume 41, January 2017, Pages 350-358.
23. Debnath, B., Chowdhury, R., & Ghosh, S. K. (2019). Urban mining and the metal recovery from E-waste (MREW) supply chain. In *Waste Valorisation and Recycling: 7th IconSWM—ISWMAW 2017*, Volume 2 (pp. 341-347). Springer Singapore.
24. Baidya, R., **Ghosh, S.K.**, Parlikar, U.V, (2017), Sustainability of Cement Kiln Co-Processing of Wastes in India: A Pilot Study, *Environmental Technology*, 1-10. DOI: <http://dx.doi.org/10.1080/09593330.2017.1293738>.
25. Rahul Baidya, PrasantaDey, **Sadhan Ghosh**, Konstantinos Petridis, (2016). Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach, *IntJournal ofAdv Manufacturing Technology*, DOI 10.1007/s00170-016-9540-1.(2016).
26. Asit Aich, **Sadhan Kumar Ghosh**, (2016). Organic fraction of municipal solid waste – a valuable source of green energy in India , *International Journal of Energy Sector Management*, Vol. 10 No. 4, 2016, p. 000 © Emerald Group Publishing Limited, 1750-6220, DOI 10.1108/IJESM-06-2015-0001, ISSN: 1750-6220.
27. Debnath B., Chowdhury., R., **Ghosh S. K.**, “*Sustainability of Metal Recovery from E-waste.*”*Frontiers of Environmental Science and Engineering* (Impact Factor: 1.799)
28. Baidya, R., Dey, P. K., **Ghosh, S. K.**,& Petridis, K. (2016). Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach. *The International Journal of Advanced Manufacturing Technology*, 1-14. DOI: 10.1007/s00170-016-9540-1
29. Baidya, R., **Ghosh, S. K.**, & Parlikar, U. V. (2016). Co-processing of industrial waste in Cement Kiln–A Robust system for material and energy recovery. *Procedia Environmental Sciences*, 31, 309-317, DOI: <https://doi.org/10.1016/j.proenv.2016.02.041>
30. Baidya, R., Debnath, B., De, D., &**Ghosh, S. K.** (2016). Sustainability of modern scientific waste compacting stations in the city of Kolkata. *Procedia Environmental Sciences*, 31, 520-529, DOI: <https://doi.org/10.1016/j.proenv.2016.02.072>
31. Parlikar, U., Bundela, P. S., Baidya, R., Ghosh, S. K., **Ghosh, S. K.** (2016). Effect of Variation in the Chemical Constituents of Wastes on the Co-processing Performance of the Cement Kilns. *Procedia Environmental Sciences*, 35, 506-512. DOI: <https://doi.org/10.1016/j.proenv.2016.07.035>
32. Baidya, R., **Ghosh, S. K.** (2016). Utilization of Discarded Waste in a Composting Plant for Energy Recovery by Plasma Gasification-a Proposed Model. *Journal of Solid Waste Technology & Management*, 42(1), 806-813.
33. Baidya, R., **Ghosh, S. K.** (2016). Plasma Gasification Technology for Energy Recovery from Waste. *Journal of Solid Waste Technology & Management*, 42(1), 794-805.

## 2015-16

34. Debnath B., Baidya R., **Ghosh S.K.**, “*Simultaneous Analysis of WEEE management System Focusing on the supply chain in India, UK and Switzerland*”, International Journal of Manufacturing & Industrial Engineering, Volume 2, Issue 1, pg. 16 – 20. Publication date: 30<sup>th</sup> April, 2015. <http://www.seekdl.org/nm.php?id=5602>

## 2014-15

35. Sarkar, A., Mukhopadhyay A.R., and **Ghosh, S. K.** (2015), Productivity Improvement by Reduction of Idle Time through Application of Queuing Theory accepted for publication at **OPSEARCH**, Vol. 52, Issue-2, pp 195-211.
36. Baidya, R., Ghosh, S. K., & Debnath, B. (2015, March). Analysis of parameters for green computing approach using the analytical hierarchy process. In 2015 international conference on energy economics and environment (ICEEE) (pp. 1-4). IEEE.
37. De, D., **Ghosh S. K.**, (2014); Implementation and value creation of green productivity by green supply chain management, International Journal of Manufacturing & Industrial Engineering, Volume 2: Issue 1, ISSN: 2374-1589.
38. Debnath, B., Baidya, R., **Ghosh, S. K.**, (2014), Simultaneous Analysis of WEEE Management System Focusing on the supply chain in India, UK and Switzerland, International Journal of Manufacturing & Industrial Engineering, Volume 2: Issue 1, ISSN: 2374-1589.
39. Sarkar, A., Mukhopadhyay A.R., and **Ghosh, S. K.** (2014), Developing a Model for Process Improvement Using Multiple Regression Technique: A Case Example in ‘**The TQM Journal**’. Vol. 26, Issue-6, pp 625-638
40. Sarkar, A., Mukhopadhyay A.R., and **Ghosh, S. K.** (2014), Measurement System Analysis for implementing design for six sigma in **International Journal of Productivity and Quality management**, Vol. 14, Issue-3, pp 373-386.
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## 2013-14

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## **9. PhD & PG THESES GUIDANCE:**

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Six PhD theses have been completed and Five PhD theses are in progress.

25 Post Graduate Thesis have been completed.

Examiner of Doctoral & PG theses at IITs, NITs and various Universities.

## **10. PROFESSIONAL REGISTRATION/ CERTIFICATIONS**

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1. Certificate course of Trainer's Training on Waste Management Rules 2016 conducted by Central Pollution Control Board and Ministry of Health and Urban Affairs, Govt of India,
2. Lead Assessor course on ISO 9000 in 1994 by QMI.
3. Lead Assessor course on ISO 14000 in 1994 by DNV.
4. Lead Assessor course on OHSAS 18001 by DNV.
5. Lead Assessor course on ISO 22000 by FICCI, New Delhi.
6. Implementer's Course on CMM (Capability Maturity Model) by ERTL, Salt Lake, India.

## **11. SPECIAL TRAINER**

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1. Certified Trainer on Waste Management Rules 2016 of Central Pollution Control Board and Ministry of Health and Urban Affairs, Govt of India,
2. Trainer of Lead Assessor course on ISO 9000
3. Trainer of Lead Assessor course on ISO 14000
4. Trainer of Internal Auditor course on ISO 9000
5. Trainer of Internal Auditor course on ISO 14000
6. Trainer of Internal Auditor course on ISO 22000
7. Trainer of Internal Auditor course on OHSAS 18001



## 12. MAJOR RESEARCH PROJECT

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### **International Research Projects (Funded) ongoing - Prof Sadhan K Ghosh as Principal Investigator**

1. British Council, UK, Funded Top Up Grant, **Going Global Partnership Industry-Academia Research Project for adoption of Circular Economy in SMEs (Sept 2023- March 2024)**, Fund GBP 10,000; India Coordinator of the project from five Indian academic and industry research partner organizations & PI at International Society of Waste Management, Air and Water (ISWMAW); Collaborator: Aston University.
2. British Council, UK, Funded **Going Global Partnership Industry- Academia Research Project for adoption of Circular Economy in SMEs (2023-2024)**, Fund GBP 40,000; India Coordinator of the project from nine Indian academic and industry research partner organizations & PI at International Society of Waste Management, Air and Water (ISWMAW); Collaborator: Aston University, and a few other Indian Universities.
3. British Council, UK, Funded **Going Global Partnership Project for developing maters program on Circular Economy**, Fund GBP 11,000; Coordinator at Jadavpur University; Collaborator: Aston University, and a few other Indian Universities.
4. **SINTEF, Norway funded project (Nov 2021- Oct 2022):** QZA-0835 RAS-18/0027, Ocean Plastic Turned into an Opportunity in Circular Economy (OPTOCE)- Project Number 102019800-1), Norway, Collaborative Research Project to Combat Marine Littering and Micro-plastics in Asia, (in India, Thailand, Vietnam, China and Norway), funded OPTOCE-project, SINTEF Prof. Sadhan K Ghosh has been invited to Lead the project in India ( INR 1 152,000/-).
5. **India-Hungary Intergovernmental S&T Cooperation Program - India-Hungarian Join Research Project (Oct 2020 – Sept 2022):** Applied Industrial Research for the thermolytic Recovery of Sludge-like wastes for the Circular Economy and Biochemical Cycle”, by Jadavpur University and Pannon Egyetem, and Felső-Bácska Tározós Szélpark Kft. Hungary Partner (Invitee)- 35.00 Lakh (Approx)
6. **European Union funded: Horizon 2020 Research projects from European commission (July 2018 – Dec 2023) :** INDIA H<sub>2</sub>O: PI from Jadavpur University, Project Entitled, ” India H<sub>2</sub>O bio-mimetic and phyto-techNologies DesIghed for low-cost purfic Action and recycling of water. 20 participating organizations from 7 countries- India, UK, Denmark, Singapore, Spain, Netherlands and Israel. (INR 130 million) – INR 40.00 Lakh for JU.
7. **SINTEF, Norway funded project (Nov 2020- Oct 2021) :** QZA-0835 RAS-18/0027, Ocean Plastic Turned into an Opportunity in Circular Economy (OPTOCE)- Project Number 102019800-1), Norway, Collaborative Research Project to Combat Marine Littering and Micro-plastics in Asia, (in India, Thailand, Vietnam, China and Norway), funded OPTOCE-project, SINTEF Prof. Sadhan K Ghosh has been invited to Lead the project in India in March 2020- 100 145 KON ( INR 792,000/-).
8. **UNCRD, Japan; ISWMAW, CRIC (Consortium of researchers in international collaboration), India supported Research Project, 3<sup>rd</sup> phase:** International Collaborative Research Project on, "Global Status of implementation of Circular



Economy" (2020-2022), participated by experts from 20 countries. Prof Sadhan K Ghosh is the Project Leader. Participating countries to be decided soon to develop the project, "Circular Economy: Policy, Innovation, Technology and Business".

9. **Royal Academy of Engineering, UK funded (2019- Sept 2021):** Circular Economy adoption within small and medium sized enterprises in India and the UK. (40,000 GBP) (to Continue).
10. **Funded by Global Challenge Research Funding, UK (2019- Dec 2020):** Social Wellbeing and Mental Health Challenges of Employees of Small and Medium Sized Enterprise (SMEs) in Emerging Economies (2019-2020) : (10,000 GBP) (to Continue).
11. **Shota Rustaveli National Science Foundation (SRNSF), Georgia, funded (2019-2021):** Development of an Integrated Methodology for Determination of the Likelihood of Emerging Illegal Dumpsites in High Mountainous Rural Regions on the Example of Georgia, (GEL 180 000). Partner: Institute of Hydrometeorology at Georgian Technical University, Georgia ((to Continue)..
12. **ISWMAW, CRIC (Consortium of researchers in international collaboration), India supported Research Project :** International Collaborative Research Project on, "Global Status of implementation of Circular Economy" (2019-2024), participated by experts from 14 countries. Prof Sadhan K Ghosh is the Project Leader. Participating countries : Brazil, Denmark, Georgia, India, Mexico, Morocco, Philippines, Russian Federation, Slovenia, South Africa, Tanzania, Tunisia, Turkey and USA to develop the project, "Circular Economy: Recent Trends in Global Perspective" (Contd.).
13. **Erasmus Plus Programme**(August 2015–Sept 2016) :Indo-Thai–UK Research Programme under Erasmus+ Programme, Focus : Supply Chain Sustainability in SME, Food Supply Chain & Energy Recovery from Waste, Partners : Jadavpur University, India, Aston University, UK; Asian Institute of Technology, Thailand and University of Thailand Chamber of Commerce, Thailand; Fund : 24,000 EURO.
14. **UKIERI** (June 2015 – extended up to May 2017): UK India Educational Research Initiative – Thematic Partnership Research Project "Developing Low Carbon SMEs in India and the UK through Lean and Green Manufacturing" Partners: Jadavpur University, India & Aston University, UK;, 10,000 GBP.
15. **UKIERI** (2013 –Extended up to 2016 June) :UK India Educational Research Initiative – Thematic Partnership Research Project "*Climate Change Issues and Environmental Performance of Small and Medium-sized Enterprises (SMEs) in India and the UK*", Partners are Aston University, UK, ITRC, CSIR Lucknow and IIT Kgp, 2012 – 2014 (Extended up to 2016 March) – 40,000 GBP.
16. **Research Project by Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** (May 2016 – continued): "Green Productivity for the Base of the Pyramid for Sustainable Development in APO Member Countries". Lead Partner : National Taipei University of Technology, Taiwan; Partners : India, represented by Jadavpur University; Central Institute for Economic Management, Vietnam; National Environment Board, Thailand Ministry of Natural Resources and Environment; PT Aicón Global Indonesia, Indonesia; Malaysia Productivity Corporation (MPC), Malaysia; William Davidson Institute at the University of Michigan; USA; Funding Agencies : APO, Japan and CPC, Taiwan – 30,000 USD.

17. "Global Waste Management, Resource Circulation and 3R" (March 2016 – March 2020); Lead Partner : 1. Jadavpur University, India; Lead Supporting Organisation/Society : 2. International Society of Waste Management, Air and Water (ISWMAW) and 3. Consortium of Researchers in International Collaboration (CRIC). Collaborative Partners and respective country Lead : 4. Australia; Griffith University, Griffith School of Engg, Queensland, 5. Egypt, University of Cairo; 6. Germany, Rostock University; 7. Italy, LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia; 8. Rep. of Korea, Kyonggi University. 9. South Africa- The Cape Peninsula University of Tech., Cape Town; 10. Thailand, AIT; 11. USA, Widener University.
  
18. **BRICS E-waste Project** (July 2015 – up to July 2019) : “Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations”. Collaborative research project with individual funding; Lead Partner: Department of Mechanical Engineering, Jadavpur University, India; Other Partners : BCRCAP, Tsinghua University, BCRC, China; Dept of Civil, Env& Arch Engineering, University of Colorado, USA; State Dept of City Management, Saint-Petersburg State University of Economic, Russian Federation; School of Env. Sciences, University of Venda, South Africa; InnovarelabPesquisa e Consultoria, São Paulo, Brazil.
  
19. **India and China** - Collaborative Research Project on *E-waste Management* (October 2016 – October 2019): Jadavpur University and Tsinghua University, Beijing, China.
  
20. **India & Italy** : Collaborative Research Project on “*Sustainable Development Goals – Realisation in Global Perspective*” (June 2016 – December 2019) : Partners : Jadavpur University, India; LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia, Consortium of Researchers in International Collaboration (CRIC) and International Society of Waste Management, Air and Water (ISWMAW).
  
21. **UKIERI** (June 2015 –Sept 2016) : UK India Educational Research Initiative – Thematic Partnership Research Project “Developing Low Carbon SMEs in India and the UK through Lean and Green Manufacturing” Partners : Jadavpur University, India & Aston University, UK;., June 2015 – Sept 2016 – 10,000 GBP.
  
22. **UGC - UKIERI** (2013 – Extended up to 2015 Dec): UK India Educational Research Initiative – Thematic Partnership Research Project “*Waste to Energy from MSW – Decision support System for planning and implementation*”, Partners are Aston University, UK, BHUIT and NIT Trichy, 2013 – 2016 (Extended up to 2016 March) – 60,000 GBP.
  
23. Collaborative India – UK Scientific Seminar funded by DST and Royal Society, UK on “Sustainable Bioenergy Recovery from Biomass” at Jadavpur University in February 2015, Collaborators – Kingston University, New Castle University, Aston University, European Bio energy Research Institute, Loughborough University in the UK and 15 other institutes in India –INR 12,00,000/- .

#### **National Research Projects (Funded) ongoing - Prof Sadhan K Ghosh as PI**

24. **ISI, Kolkata funded(2019-2021) :** Pro-Environmental attitude survey (PES), Psychology Research Unit of the Indian Statistical Institute, Kolkata (INR 12,60,000) (Contd.)..
25. Research Project for Development of High Speed Ribboning Machine, Phase I, JCI, Jute Technology Mission, Govt of India, Since December 2008.
26. Research Project on Status of Plastics waste management and inventorisation of recycling units in West Bengal, WB Pollution Control Board, Dept of Environment, Govt. of West Bengal, since November 2008.
27. Research Project for Developing DPR for modernization of EWS for repair and maintenance of submersible pumps for enhanced quality and productivity, 2012.
28. Research Project for study of SWM status & developing detail Bio Gas Project Document for nine ULBs, 2011 - 2012.
29. Research Project for study & developing 5 year plan of Uluberia Municipality, 2012.
30. Research Project – MSSE Cluster Development Initiative, M Oil, Govt of West Bengal, 2011 -2012.
31. Research Project – MSSE Cluster Development Initiative, Plastics, Govt of West Bengal, 2011 -2012.
32. Research Project on Study & developing 2nd generation DDP for 5 years planning for Howrah Municipal Corporation, 2012.
33. International Quality Initiative – a joint research programme by CQMS, JU & Aston Business School, Aston University, UK, 2007 - 2008.
34. “Waste to wealth – ER2 Surendra” - Dept of Environment, Govt. of West Bengal, 2006.
35. Research Report on “Study of E-Waste in Kolkata” with Toxics Link, New Delhi, in Sept. 2006-07.
36. “Assessment of Training Effectiveness in PSUs”, with Central Board for Workers Education, Ministry of Labour & Employment, Govt. of India, 2005 -2006.
37. Noise level monitoring at Heavy Engineering Ship Building Factory, GRSE Ltd, April ‘07 – Sept ‘07.
38. Study and Quality & Food safety assessment of Packaged Drinking Water”, by CQMS JU 2003.
39. “Failure analysis of Turbine in Ranganadi Hydel Power Project (RHEP)” funded by North Eastern
40. Electrical Power Corporation (NEEPCO), Shillong, October 2002 – March 2003.
41. Plastics waste management- Reengineering of recycling process of Packaging Plastics, CPCB, Dept. of Environment, Govt of India, 1999 – 2004.
42. As Co-investigator - Modernization of Workshop – Funded by Ministry of HRD, Govt. of India, 1989-91.

43. As Co-investigator - “CAD CAM” (Computer Aided Design Computer Aided Manufacturing  
– Funded by Ministry of HRD, Govt of India, 1987-1989.

### 13. INVITED LECTURES DELIVERED

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#### Lectures delivered in foreign Countries by Prof. Sadhan K. Ghosh:

1. **Russin Federation, Moscow, 10th Oct:** III Russian Ecological Forum [REF Forum], 2023 in the campus of SberUniversity, , Moscow Region during October 9-11, 2023. Delivered the invited speech in the round table, on, Legislative & Policy Instruments for the transition to Circular Economy- Circular Economy: the path from Waste to Demand Product (delivered online on 10th Oct).
2. **Nigeria, 5<sup>th</sup> June:** Plenary Speech in the Conference Opening ceremony on Sustainable Solid Waste Management through Innovations, Technology and Policy Instruments" in the 1st Faculty of Engineering International Conference organized by the University of Ilorin during June 5-7, 2023 (delivered online on 5th June).
3. **UK, Aston University, UK,** Speech on Outcome of the Gloing Global Partnership, funded by British Council, UK, Sept 4-6, 2023.
4. **Japan, Kyoto University, 7<sup>th</sup> March 2023,** Speech on Outcome of the Regional 3R & CE Forum, UNCRD & MoEJ, Japan at Convention Centre, Siem Reap, Cambodia, speech on 7<sup>th</sup> March 2023.
5. **Bangladesh, Khulna:** Keynote specch on, "Ciscular Economy and business Models, in WasteSafe, 2023 on 23-24<sup>th</sup> March 2023 online.
6. **Bercelona, Spain:** Speech on Entrepreneurship Development with India H2O technology in India H2O research project funded by EU and DBT during Oct 27-28, 2023.
7. **Turkey, Istanbul:** Keynote Speech at 6th EurAsia Waste Management Symposium 2022 during October 24-26, 2022 at Yildiz Technical University, Istanbul, Turkey.
8. **UK, Birmingham:** Speech on Waste Management & Circular Economy in Aston University to PG and PhD visiting Students and technical discussion over Going Global Research project during September 20 to 24<sup>th</sup> 2022.
9. **Germany, Berlin:** Delivered keynote speech on, "Reduction of marine litter by a functioning circular economy" Invited by German Recycling Technologies and Waste Management Partnership e.V. in the RETech conference "Recycling management against marine litter" held at Berlin, Germany during on November 21 and 22, 2019.
10. **Bangladesh,** on invitation from IGES, Japan & SACEP, Sri Lanka: Delivered *Speech* on "Waste separation at source at Indore" at the Second Sub-Regional workshop on Preparation of status Report and sub-regional Roadmap for Implementing the Global Waste Management Goals toward Addressing SDGS in South Asia to be held in Dhaka, Bangladesh 15th -17th July 2019 and coordinated the session on, "Holistic waste management/ integration of 3Rs", at the Meghna Hall, Hotel Pan Pacific Sonargaon, Dhaka, Bangladesh.
11. **Sri Lanka,** on invitation from IGES, Japan & SACEP, Sri Lanka: Delivered Key Note speech on, "*Importance of Roadmap moving from waste management towards circular*

*economy incorporating Polluter Pay Principle and EPR” on 16<sup>th</sup> and second keynote speech on 17<sup>th</sup> on, “Importance of national data management on waste and experience of the application of Swachh Bharat Mission in India in gathering data from cities (data types, procedure and management)”, at the Third Sub-Regional Workshop on preparation of status report and sub-regional roadmap for implementing the global waste management goals towards addressing SDGs in South Asia scheduled to be held from 16-17 September 2019, in Colombo, Sri Lanka. at the The Kingsbury Hotel Colombo, Sri Lanka.*

12. **USA** : Delivered the *Opening Plenary Speech* in Annapolis, Maryland, Washington DC, on “Sustainable Waste Management in Ribboning & Retting of Jute : Alternative to Plastics”, in the 34<sup>th</sup> International Conference on Solid Waste Technology and Management, by Widener University, USA held during March 31- April 03, 2019.
13. **USA, Invited to deliver The Opening Plenary Speech in Annapolis, Maryland, Washington DC**, on “Zero Wates Zero Landfill”, in the Thirty Third International Conference on Solid Waste Technology and Management, by Widener University, USA held during March 19-22, 2018.
14. **China, Hefei University, Hefei, China** : Invited Speech on “Waste Management to Energy” in International Conference on Technology and Waste Management in Hefei University, Hefei, China, during June 12-13, 2018.
15. **UK, Aston Business School, Aston University, June 2016,**– Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable food supply chains in India and other developing countries” on 21st June 2015 as a part of , Erasmus Plus Programme and “SME performance towards Low carbon emission” as a part of UKIERI project on 22<sup>nd</sup> June 2016.
16. **USA, Invited to deliver The Opening Plenary Speech in Philadelphia**, on “Circular Economy in Asian Countries”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016.
17. **Taiwan, Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** : Delivered speech on “GP for the Base of the Pyramid for Sustainable Development in India and further improvement” in the Coordination meeting during 3-5 May, 2016 at Taipei, ROC.
18. **China, Hefei University, Hefei, China** : Invited Speech on “Waste to Energy” in International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.
19. **China , Hefei University, Hefei, China** : Invited Speech on “Innovation in Environment Management System” in Hefei University, Hefei, China, on May 20, 2016.
20. **UK, Aston Business School, Aston University, June 2016,**– Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable food supply chains in India and other developing countries” on 21st June 2015 as a part of , Erasmus Plus Programme and “SME performance towards Low carbon emission” as a part of UKIERI project on 22<sup>nd</sup> June 2016.
21. **Italy, Monash University, Prato, June 2016** – Delivered speech “*Decision Support Systems (DSSs) help implement energy recovery from waste projects in India and the UK*” and “*Climate Change Issues and Sustainability Performance of Small and Medium-sized Enterprises (SMEs) in Developed and Emerging Economies*“ in the “Sustainable Development Workshop” hosted



by the Monash Business & Sustainability Network and Centre for Development Economics and Sustainability at Monash University Prato Centre, Prato, Tuscany, Italy, June 24-25, 2016.

22. **China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, and Kunming, October 2016** - Invited by Tshinhua University, Beijing China to deliver the plenary speech on “*Role of Biomass for economy development by BOP group*” in the 11<sup>th</sup> International Conference on Waste Management and Technology by Basel Convention centre, on October 21-24, 2016 at Jingy Hotel, Beijing China.
23. **Laos PDR, National University of Laos, October 2016** - Invited by **National University of Laos, October 2016 and Aston University, UK** to deliver Keynote speech on “Waste to Energy in ASEAN and the UK” during 25-26, October 2016 in the “UK-ASEAN Innovation Conference” at Lao Plaza Hotel, 63 Samsenthai Road, Vientiane, Laos.
24. **Australia, International Expert invited by UNCRD under United Nations:** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited as International Expert by United Nations Centre for Regional Development (UNCRD); Australian Government and Ministry of the Environment, Japan (MOEJ) for the Plenary Speech on “*Potential of economic utilization of biomass waste in India~Implications towards SDGs*’ and as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7<sup>th</sup> Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”.
25. **Bangladesh:** Delivered the Keynote Speech in the WasteSafe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at KUET, Khulna, Bangladesh.
26. **Bangladesh:** Delivered the Invited Speech on “Global Waste Management” held on February 27<sup>th</sup>, 2017 at Khulna University, Bangladesh.
27. **USA, Invited to deliver The opening Plenary speech in Philadelphia, USA** on “Circular Economy and 3Rs – Reduce, Reuse, Recycle for Efficient Use of Resources”, in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2017. <http://solid-waste.org/past-conferences-and-proceedings/proceedings/2017-2/>
28. **USA, Invited to deliver The Opening Plenary Speech in Philadelphia**, on “Circular Economy in Asian Countries”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016.
29. **Taiwan, Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** : Delivered speech on “GP for the Base of the Pyramid for Sustainable Development in India and further improvement” in the Coordination meeting during 3-5 May, 2016 at Taipei, ROC.
30. **China, Hefei University, Hefei, China** : Invited Speech on “Waste to Energy” in International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.
31. **China , Hefei University, Hefei, China** : Invited Speech on “Innovation in Environment Management System” in Hefei University, Hefei, China, on May 20, 2016.
32. **UK, Aston Business School, Aston University, June 2016,**– Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable food supply

chains in India and other developing countries” on 21st June 2015 as a part of , Erasmus Plus Programme and “SME performance towards Low carbon emission” as a part of UKIERI project on 22<sup>nd</sup> June 2016.

33. **Italy, Monash University, Prato, June 2016** – Delivered speech “*Decision Support Systems (DSSs) help implement energy recovery from waste projects in India and the UK*” and “*Climate Change Issues and Sustainability Performance of Small and Medium-sized Enterprises (SMEs) in Developed and Emerging Economies*” in the “Sustainable Development Workshop” hosted by the Monash Business & Sustainability Network and Centre for Development Economics and Sustainability at Monash University Prato Centre, Prato, Tuscany, Italy, June 24-25, 2016.
34. **China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, and Kunming, October 2016** - Invited by Tshinhua University, Beijing China to deliver the plenary speech on “*Role of Biomass for economy development by BOP group*” in the 11<sup>th</sup> International Conference on Waste Management and Technology by Basel Convention centre, on October 21-24, 2016 at Jingy Hotel, Beijing China.
35. **Laos PDR, National University of Laos, October 2016** - Invited by **National University of Laos, October 2016 and Aston University, UK** to deliver Keynote speech on “Waste to Energy in ASEAN and the UK” during 25-26, October 2016 in the “UK-ASEAN Innovation Conference” at Lao Plaza Hotel, 63 Samsenthai Road, Vientiane, Laos.
36. **Australia, International Expert invited by UNCRD under United Nations:** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited as International Expert by United Nations Centre for Regional Development (UNCRD); Australian Government and Ministry of the Environment, Japan (MOEJ) for the Plenary Speech on “*Potential of economic utilization of biomass waste in India~Implications towards SDGs*” and as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”.
37. **Bangladesh:** Delivered the Keynote Speech in the WasteSafe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at KUET, Khulna, Bangladesh.
38. **Bangladesh:** Delivered the Invited Speech on “Global Waste Management” held on February 27<sup>th</sup> , 2017 at Khulna University, Bangladesh.
39. **USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Circular Economy and 3Rs – Reduce, Reuse, Recycle for Efficient Use of Resources”, in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2017. <http://solid-waste.org/past-conferences-and-proceedings/proceedings/2017-2/>.
40. **UK, Aston Business School, Aston University, April 2015, June 2015, December 2015** – Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable supply chains in developed and developing countries” on April 2015, June 2015, December 2015.
41. **UK, New Castle University, June 2015** – Delivered speech in the workshop in New Castle University UK on “Potential of Collaborative Research between India and the UK”.

42. **Hong Kong, HK Baptist University, May 2015** - Invited to deliver invited speech in ICSWHK at Hong Kong Baptist University, Hong Kong, on May 21-25, 2015.
43. **Korea, Kyonggi University and Seoul National University, May 17-21st, 2015** – Invited to deliver speech and discussion on waste Management and research on Waste to Energy and WEEE in the Department of Environmental Engineering, Kyonggi University, Suwon, and Seoul National University, South Korea.
44. **Thailand, Regional Forum on Climate Change (RFCC), Asian Institute of Technology, July 2016** - Invited by Regional Forum on Climate Change to deliver speech on “Developing Low Carbon SMEs in India” at the RFCC for Low Carbon and Climate Resilient Societies, Bangkok, Thailand, during July 10-3, 2016 for the preparation for “COP 21”, Organised by the AIT in collaboration with French Ministry of Foreign Affairs, ASEAN Secretariat and EU.
45. **China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, and Kunming, October 2015** - Invited by Tshinhua University, Beijing China to deliver the plenary speech on “Biomass Utilisation for Bio-energy Production” in the 10<sup>th</sup> International Conference on Waste Management and Technology by Basel Convention centre, on October 29, 2014 at Tshinghua University, Beijing China.
46. **Thailand, Asian Institute of Technology, & UTCC, March 2016** - Invited by Asian Institute of Technology to deliver speech on “Biomass Supply Chain for Bioenergy production” in India on 8<sup>th</sup> March 2016 and a round table discussion in the University of Tai Chamber of Commerce on “Supply Chain Management in Asian Countries” on 7<sup>th</sup> March 2016.
47. **Vietnam, Material Cycles and Waste Management, March 2016** - Invited Material Cycles and Waste Management in Asian countries to deliver speech in the special session on Biomass Supply Chain in India” in the 3rd 3R International Scientific Conference on Material Cycles and Waste Management (3rd 3RINCs), on March 8-11, 2016 at Hotel Melia, Hanoi, Vietnam.
48. **UK** - June 2014- Delivered lecture on ”Landfill Gas extraction for energy recovery from Municipal Solid Waste” in Aston University, Birmingham, UK on November 2014 and June 26<sup>th</sup> 2014.
49. **Taiwan** – October 2014: Invited by Asian Productivity Organization, Japan as International Expert to the Expert panel meeting for developing the framework for *APO GreenProductivity Excellent Awards* for 20 Asian Countries held during October 1-3, 2014 and to deliver the lecture of IconSWM Award of Excellence in SWM scheme on 1<sup>st</sup> October 2014 at United Hotel, Taipei City, Taiwan, ROC by Asian Productivity Organization, Japan and COE GP at China Productivity Council.
50. **Republic of Serbia** :Plenary speech in October 2014 : Invited by Faculty of Technical Sciences "Mihajlo Pupin" Zrenjanin, University of Novi Sad, Republic of Serbia, Budapest, Hungary to deliver Keynote speech in the inaugural session over skype on “ISO 14001:2014 as a system of ecological management in SMEs in India and the UK” on 9<sup>th</sup> October 2014 in the 4<sup>TH</sup>International Conference „Ecology of Urban Areas 2014“ held during Oct 9-10, 2014 in Serbia, Budapest, Hungary.
51. **China - Plenary speech in October 2014** - Invited by Basel Convention Coordinating Centre for Asia and the Pacific (BCCCAP) to deliver Plenary speech on at Tsinghua University, Beijing, China on 30<sup>th</sup> October 2014 on “Utilization of Biomass to Bio-energy” in the 9<sup>th</sup> International Conference on Waste Management and Technology during 29 – 31, October 2014 organized by BCCCAP and Tsinghua University, China.

52. **UK** - November 2014 - Invited to deliver the speech on the “Environmental Performance in SMEs in India” on 19<sup>th</sup> November 2014 at Aston Business School, Aston University in the UKIERI Workshop.
53. **UK** - November 2014 - Invited to deliver the speech on the “Waste to Energy in India” on 20<sup>th</sup> November 2014 at Aston Business School, Aston University in the UKIERI Workshop.
54. **USA : Opening Plenary Speech in March 2015** - Invited to deliver the Opening Plenary Speech in the 30<sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, PA U.S.A by Widener University, during March 15-18, 2015.
55. **USA** : Invited speech in March 2015 - Invited to deliver the Speech in the speech on “Indian Culture” and “Manufacturing Engineering in India” in the Piedmont Virginia Community College, Charlottesville, Virginia during March 19<sup>th</sup> and 20<sup>th</sup> , 2015.

### **Lectures delivered within the country by Prof. Sadhan K Ghosh**

56. **India, CPCB**: Delivered a speech on, “Alternatives of Single use Plastics” at Regional Office of Central Pollution Control Board, Kolkata on 23<sup>rd</sup> March 2023.
57. **India at India Habitat Centre**: Delivered *the address on, “Waste to Energy” in the International Seminar of Waste to Energy, on January 31, 2020 invited by Steag Germany at India Habitat Centre, New Delhi.*
58. **India at India Habitat Centre** : Panelist in the “Waste and Waste- Water Management in WSDS 2020 Corporate Conclave” *on January 30, 2020 in th Stein Auditorium, India Habitat Center, Lodhi Road, New Delhi invited by TERI at the World Sustainable Development Summit 2020.*
59. **India at Indore** : Delivered speech on, how to improve the waste management at Indoor”, at Indore Municipal Corporation, by IGES, Japan and ISWMAW. June 2019.
60. **India at IconSWM, KIIT, Odisha**: Delivered the Keynote Speech at 9th IconSWM-CE 2019 (International Conference on Solid Waste Management, held at KIIT, Odisha during November 27-30, 2019.
61. **ANU, Guntur**: Keynote speech in the inaugural on national seminar on Eco friendly Technologies for sustainable waste management, AT ANU, Guntur, Urban sustainability through Circular Economy towards sustainable waste management” during February, 7-8, 2020.
62. **NIT, Durgapur** : Delivered keynote speech on “Circular Economy” at the national seminar on waste management and Circular Economy sponsored by TEQIP , NIT Durgapur.
63. **CUSAT, Cochin**: Delivered keynote speech on “Sustainable Waste Management” at the International Conference On Energy, Environment, Materials And Safety (ICEEMS’19), April 25-27, 2019, Venue: Seminar Complex, CUSAT, Cochin University of Science & Technology.

64. **JU :** Delivered several lectures on “Anti Plagiarism, benefits and software application” for the teachers and research scholars of Jadavpur University, on 1.10.2019 and several other dates covering nearly 1000 teachers and research scholars.
65. **JU :** Delivered lecture on “ How to write quality research articles for publication” at the two day workshop at Jadavpur University attended by more than 400 teachers and research scholars, during January 13-14, 2020.
66. **CUSAT, Cochin:** Delivered plenary lecture on “Marine Littering and Micro plastics-global status, actions and way forward”, at the Dept of Civil Engg, Cochin University of Science and Technology, Kochi, India in International workshop on Sustainable Technologies for “Waste to Energy & Waste to Wealth” – Challenges and Opportunities, STWEAW’19 on 16 December 2019.
67. **IEM, Kolkata:** Delivered keynote speech on “Resource Circulation in Circular Economy” at the Institute of Engineering & Management, Kolkata on 24<sup>th</sup> April 2019 in the National Symposium on Resource Circulation and Waste Management.
68. **UGC- HRDC, JU:** Delivered speech h on “Innovation” at the 74th Orientation programme for teachers and librarian of universities and colleges on 11th September 2019 at the UGC-Human Resource Development Center, Jadavpur University.
69. **CU:** Delivered speech h on “Innovation in waste plastics Recycling & Jute Ribboning” at the Orientation programme for teachers of universities and colleges at the department of Chemical Engineering, Calcutta University, Rajabazar Campus.
70. Inaugural address in the World Accreditation Day 2018 on 9<sup>th</sup> June 2018 organised by QCI, NABET and BIS at Peerless Hotel, Kolkata.
71. ISI on Strategies in jute industry sectors on 3<sup>rd</sup> June, 2018, ISI, Barranagar, Kolkata
72. WED 2018 speech in WED Seminar held on 4<sup>th</sup> June 2018 at Seminar Room of BNCCI organised by Bengal National Thanmber of Commerce and Industries.
73. **New Delhi:** Delivered the Speech in the Special Session on “3R Implementation in India” in the 4<sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and Waste Management held during March 8-10, 2017 at Indian Habitat Centre, New Delhi, India supported by Kyoto University, IIP Dehradun, ISWMAW, UNCRD and IEGS, Japan.
74. **New Delhi:** Delivered the Keynote Speech on “Economic Utilisation of Biomass in India : SWM Perspective” in the APN Workshop, 3<sup>rd</sup> International Conference on Materials Cycles and Waste Management held on March 10, 2017 at Indian Habitat Centre, New Delhi, India organised by Ministry of Environment, Japan.
75. **Delhi, Panellist in World Sustainable Development Summit:** Prof. Sadhan Kumar Ghoshof *mechanical engineering department* was invited in as panellist in the “World Sustainable Development Summit” on October 5 - 8, 2016 at BiggyanBhawan, New Delhi to deliver on *EU–India collaboration for Resource Efficiency and the Circular Economy*, organised by TERI.



76. Kolkata : Invited to deliver the inaugural speech on the “Workers Education Day” on 16<sup>th</sup> September 2014 at Academy of Fine Arts, Kolkata by Central Board of Workers Education, Ministry of Labour and Employment, Govt of India.
77. Mysore : Invited speech on “Waste Management and green campus” in the International Conference by St. Philomena’s College in Mysore in June 2014.
78. Kolkata: Invited to deliver the speech in the inaugural programme of the two day national seminar on “Contract Labour Law in India” held during 26 - 27<sup>th</sup> September 2014 at IChE Auditorium, Jadavpur University, Kolkata organized by Central Board of Workers Education, Ministry of Labour and Employment, Govt of India.
79. Kolkata: Invited as panelist to deliver speech on Improvement of SMEs in West Bengal” invited by FOSMI in June 2014.
80. Indore : Invited by Govt. of Madhya Pradesh, Urban Development Department and CII, Indore to deliver speech on “Sustainable Waste Management” in the **Industry Summit** at Indore on 9<sup>th</sup> October 2014. The programme was inaugurated by the Hon’ble Prime Minister of India.
81. Bhopal : Delivered invited speech on “Waste Management and compliance to MSW rules 2000” in the Workshop for the commissioners of Madhya Pradesh held at Bhopal by MP Pollution Control Board in August 2014.
82. Bangalore : Delivered plenary speech on “Waste Management” in the Bangalore College under Bangalore University at Bangalore in September 2014.

#### 14. SESSION CHAIRED

Description	Date	Venue
3 RINCs 2023 at Kyoto University, Japan	16th March 2023	Kyoto University, JAPAN
Regional 3R & CE Forum, UNCRD & MoEJ, Japan at Convention Centre, Siem Reap, Cambodia	8-10, February 2023	Convention Centre, Siem Reap, Cambodia
6th EurAsia Waste Management Symposium (EWMS 2022) at Istanbul, Turkey	October 24-26, 2022	Yildiz Technical University, Istanbul, Turkey.
10TH IconSWM-CE 2020 held online at JU, Dec 2-7, 2020.	December 2-7, 2020	India.
Chaired the 14th ICWMT, International Conference on Solid Waste Management, May 27-30, 2019.	November 27-30, 2019	Online
Chaired the Technical Session in the 35th International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held in April, 2020	April 11, 2020	Annapolis, Maryland, Washington DC USA

Chaired the International Seminar thru Virtual platform: "Sustainable development & Low Carbon Technology - Theory, Research, Applications and Business"; 10th November, 2020;	Nov 10, 2020	Kolkata, India
Chaired, Webinar on "European Union - DBT Funded Wastewater Recycling: INDIA H2O Project", 16th October, 2020,	16th October, 2020	Kolkata, India
Chaired the Technical Session in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016	April 17, 2016	The Warwick Hotel, Philadelphia, USA
Chaired the Special Technical Session on "Biomass Gasification" in the 4 <sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and ....., held during March 8-10, 2017 at Indian Habitat Centre, New Delhi, India supported by Korean Society of Waste Management and ISWMAW.	March 9, 2017	at Indian Habitat Centre, New Delhi,
Chaired the Technical Session in the WasteSafe 2017, 4 <sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at Khulna University of Engineering and Technology, Khulna, Bangladesh.	February 27, 2017	KUET, Bangladesh
Chaired Technical Session in the China, Basel Convention Regional Centre for Asia and the Pacific, Beijing,	October 23, 2016	Tsinghua University, China
Chaired and act as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the "7 <sup>th</sup> Regional 3R forum in Asia and the Pacific", 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, "Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development".	3, November 2016	International Convention Centre, Adelaide, South Australia
Chaired Technical session in 6 <sup>th</sup> International Conference on SWM held at Jadavpur University, by the CQMS, JU, IISc Bangalore, IIT Kgp, TERI & International Society of Waste Management, Air and Water (ISWMAW)	on 25 <sup>th</sup> November 2015	Gandhi Bhaban, Jadavpur University
Chaired the Keynote Session in the International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.	May 18, 2016	Hefei University, Hefei, China,
Chaired the Technical Session in the 32 <sup>nd</sup> International Conference on Solid Waste Technology and Management, Widener University, USA during March 19-22, 2017.	March 21, 2016	The Warwick Hotel, Philadelphia, <b>USA</b>
Chaired the CRIC meeting (Consortium of Researchers in International Collaboration) attended by 21 countries.	March 20, 2016	The Warwick Hotel, Philadelphia, <b>USA</b>
Chaired Technical session in RFCC AIT Thailand July 1-3, 2016.	2 <sup>nd</sup> July 2016	AIT, Thailand
Chaired Technical session in IIT Kharagpur,	Sept 2015	IIT Kharagpur
Chaired Technical Meeting Hong Kong, HK Baptist University, 3 <sup>rd</sup> ICSWHK, on May 21-25, 2015.	23 <sup>rd</sup> May 2016	Hong Kong

Chaired Technical China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, October 2015	20 <sup>th</sup> Oct 2015	Miangyang,
Chaired Technical in 3 <sup>rd</sup> 3RINs in hotel Melia, Vietnam, by Material Cycles and Waste Management, March 2016	10 <sup>th</sup> March 2016	3 <sup>rd</sup> 3RINs in hotel Melia, Vietnam
Chaired Technical session in 4 <sup>th</sup> International Conference on SWM held by the IISc Bangalore & International Society of Waste Management, Air and Water (ISWMAW)	on 25 <sup>th</sup> November 2015	IISc Bangalore, J N Tata Auditorium
USA: Chaired Technical session in 30 <sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, PA U.S.A by Widener University, USA	March 16-18, 2014	The Warwick Hotel, Philadelphia, USA
China: Chaired Technical session in 9 <sup>th</sup> International Conference on Waste Management and Technology by Basel Convention Coordinating Centre for Asia and the Pacific, Tsinghua University, Beijing,	29 <sup>th</sup> - 31 <sup>st</sup> October 2014, China	Tsinhua University, Beijing
India: Chaired Technical session in International Conference by St. Philomena's College in Mysore	June 2014	St. Philomena's College in Mysore

## 15. CONSULTANCY SERVICES PROVIDED

He has been providing consultancy services to nearly 70 different types and sizes of industries on development of management systems, their training and implementation, auditing and certification in compliance with QMS standard ISO 9001, EMS standard ISO 14001, OHSMS standard ISO 45001, EnMS standard ISO 50001 and HACCP AND ISO 22001. To name a few industries, CESC Ltd, Indian Oil Corporation- Haldia Refinery, HBCPL Pipelines division of IOCL, HMRB Pipelines division of IOCL, Digboi Refinery, Assam, Guwahati Refinery Assam, Growth Division of SAIL, Mechano Paper Machines Pvt Ltd., Anirox Pigments Pvt Ltd., Jayashree Textiles, Khadim Pvt Ltd., etc.

Provided consultancy for the implementation of TQM in West Bengal Electricity Distribution Co. Ltd. (WBSEDCL), West Bengal Electricity Transmission Co. Ltd. (WBSETCL),

Provided consultancy and auditing for the implementation of 5S in the South Eastern Railways Workshops at Kharagpur, Haldia, Kanchrapara Rly Workshop.

Provided Consultancy for development of ETP and drainage system in Kanchrapara Rly Workshop.

Provided inspection services to India-Nepal Check post at Birgunj, in 2023.

## 16. CONFERENCE ATTENDED

1. 3RINCs held at Kyoto University, Japan during March 13-17, 2023.

2. 34<sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during March, 2019, AT **Annapolis, Maryland, Washington DC**
3. International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016
4. **National seminar** on Eco friendly Technologies for sustainable waste management, AT ANU, Guntur, Urban sustainability through Circular Economy towards sustainable waste management” during February, 7-8, 2020.
5. UKIERI Seminar on “Low Carbon SMEs through Green and Lean Manufacturing” at Aston University, UK June 21, 2016.
6. International Conference in Monash School of Management, Monash University, Prato, Florence, Italy during June 24-25, 2016.
7. “World Sustainable Development Summit” on October 5 - 8, 2016 at BiggyanBhawan, New Delhi to deliver on EU–India collabor
8. 11<sup>th</sup> International Conference on Waste Management and Technology at Beijing, China during October 21-24, 2016 by Basel Convention Regional Centre for Asia and the Pacific, Tshinhua University, Beijing.
9. 1<sup>st</sup> ASEAN Conference on Innovation at Lao Plaza Hotel, Vientien, Laos, during October 25-26, 2016 by National University Laos and Aston University, UK.
10. 6<sup>th</sup> International Conference on Solid Waste Management, 6<sup>th</sup>IconSWM 2016 at Jadavpur University, India, by International Society of Waste Management, Air and Water (ISWMAW), CQMS, Jadavpur University, TERI, IIT Kgp., IISc Bangalore and .
11. 3R Forum on Asia Pacific organized by UNCRD and Govt of Australia, during November 2-4, 2016 at Adelaide Convention Centre, Adelaide, SA, Australia.
12. 4<sup>th</sup>3R International Scientific Conference on Material Cycles and Waste Management (4<sup>th</sup> 3rd 3RINC), during March 8-10, 2017 at India Habitat Centre, New Delhi, India by Material Cycles and Waste Management in Asian countries, CSIR-IIP Dehradun, ISWMAW, India and KSWM, S. Korea and IIT Delhi.
13. USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on “3R and Circular Economy in Waste Management”, in the Thirty Second International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2016.
14. 3<sup>rd</sup> International Conference on Solid Waste (3<sup>rd</sup> ICSWHK) at Hong Kong Baptist University, Hong Kong, on May 21-25, 2015.
15. UKIERI Seminar on “ Supply Chain Sustainability of SMEs” at Aston University, UK June 2015.
16. Regional Forum on Climate Change (RFCC), for Low Carbon and Climate Resilient Societies, for the preparation for “COP 21, at Asian Institute of Technology, July 1-3, 2016 Organised by

the AIT in collaboration with French Ministry of Foreign Affairs, ASEAN Secretariat and EU.

17. 10<sup>th</sup> International Conference on Waste Management and Technology at Miangyang, during October 20-24, 2015 by Basel Convention Regional Centre for Asia and the Pacific, Tshinhua University, Beijing.
18. 5<sup>th</sup> International Conference on Solid Waste Management, 5<sup>th</sup>IconSWM 2015 at IISc, Bagalore, India, by IISc Bangalore and International Society of Waste Management, Air and Water (ISWMAW) and CQMS, Jadavpur University.
19. UKIERI symposium on “ Supply Chain Sustainability of SMEs in India and the UK” at Aston University, UK June 2015.
20. 3rd 3R International Scientific Conference on Material Cycles and Waste Management (3rd 3RINCs), on March 8-11, 2016 at Hotel Melia, Hanoi, Vietnam byMaterial Cycles and Waste Management in Asian countries and ISPONRE, Vietnam.
21. Participated in the 30<sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, PA U.S.A by Widener University, USA during March 15-18.
22. Participated in the 9<sup>th</sup> International Conference on Waste Management and Technology by Basel Convention Coordinating Centre for Asia and the Pacific, Tsinghua University, Beijing.
23. Participated in the International Conference by St. Philomena’s College in Mysore in June 2014

#### **C. Seminar / Conference / Symposium organized by Prof Sadhan K Ghosh**

24. National Seminar on E-waste Recycling on May 12, 2014 at JU.
25. Workshop on “MSW management and community development” on July 09, 2014 at JU.
26. Workshop on “How to write research paper and reports” during August 5-7, 2017 at JU.
27. Workshop on Service Learning attended by the visiting teams from Universities in Taiwan, Hong Kong and Jadavpur University in August 2014.
28. UKIERI workshop on Waste to Energy Workshop in July, December and February 2015 at the Seminar Room, M E Dept, Jadavpur University, Kolakta.
29. UKIERI workshop on “Climate change and environmental performance in SMEs in India and the UK” held on 21st February 2015 at IICHE Auditorium JadavpurUniversty, Kolakta.
30. UK Scientific Seminar funded by DST and Royal Society, UK on “Sustainable Bioenergy Recovery from Biomass” at Jadavpur University in February 17-20, 2015, Collaborators – Kingston University, New Castle University, Aston University, European Bio energy Research Institute, Loughborough University in the UK and 15 other institutes in India.

#### **17. SEMINAR / CONFERENCE / SYMPOSIUM ORGANIZED**

1. 9<sup>th</sup> International Conference on Solid Waste Management, 9<sup>th</sup> IconSWM 2019 at KIIT, Odisha India, by International Society of Waste Management, Air and Water (ISWMAW), CQMS, Jadavpur University, IISc Bangalore and KIIT during Nov 27-30, 2019..



2. 9<sup>th</sup> International Conference on Solid Waste Management, 9<sup>th</sup> IconSWM 2019 at KIIT, Odisha, India, by International Society of Waste Management, Air and Water (ISWMAW), CQMS, Jadavpur University, IISc Bangalore and KWSA, JSMCWM.
3. WED (World Environment Day) Celebration Workshop on 5th June 2019 seminar at Jadavpur University.
4. Indo - Taiwan Workshop in August 2019 by CQMS, JU and Fu Jen Catholic University.
5. Research Review Meeting and Workshop, GCRF ESRC, UK seed corn funded research project, Social Wellbeing and Mental Health issues of employees in SMEs, January 27-28, 2020 at Centre for Sustainable Development and Resource Efficiency Management, Jadavpur University, Kolkata, India.
6. Royal Academy of Engineering (RAE), UK funded research project , Circular Economy Adoption in SMEs in India and the UK, January 27, 2020 at Centre for Sustainable Development and Resource Efficiency Management, Jadavpur University, Kolkata, India.
7. Two day workshop on “Writing **quality research articles for publication**” at Jadavpur University attended by more than 400 teachers and research scholars, during January 13-14, 2020.
8. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup>IconSWM 2016) held at Jadavpur University in collaboration with CQMS, JU; IISc, IIT Kgp, TERI, CRIC and ISWMAW and other industries during Nov 24-26, 2016 attended by 557 delegates from 27 countries presented 240 papers organized as the Chair.
9. Indo-Thai-UK Seminar on Supply Chain Sustainability in SMEs in India, Thailand and the UK during February 1-3, 2016 at Jadavpur University.
10. UKIERI Seminar on :How to write research articles” on July 10, 2016 at Jadavpur University.
11. India- Taiwan Service Learning Worksho, attended by the teachers and student from Taiwan, Hong Kong, and India on 20<sup>th</sup> July 2016 at Jadavpur University.
12. 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017 as the Organising Chairman of the.
13. Training workshop conducted at CQMS,JU under research project – “Waste Management - A Municipal level study in West Bengal for assessing 3R Concept implementation” held on 29<sup>th</sup> March 2017 at the Seminar Room, M E Dept, JU.  
**(2015-16)**
14. 5<sup>th</sup> International Conference on Solid Waste Management (5<sup>th</sup>IconSWM 2015) held at IISc Bangalore in collaboration with IISc and ISWMAW and other industries.
15. Indo-Thai-UK Seminar on Supply Chain Sustainability in SMEs in India, Thailand and the UK during February 1-3, 2016 at Jadavpur University.

16. UKIERI Seminar on Waste to Energy in India and the UK on August 1, 2015 at Jadavpur University.
17. UKIERI Seminar on Developing Low Carbon SMEs on July 10, 2015 at Jadavpur University .

## 18. OUTSTANDING ACHIEVEMENT:

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1. **Special Program promoting Cycling** : On invitation by **Chinese Taipei University Sports Federation (CTUSF)** and **Fu Jen Catholic University**, Inaugurated and participated in the International Sports and Nature familiarization activity (First of its kind in Jadavpur University); As the **head of delegation of the Cycling Team participated in the Summer Cycling Programme in Taiwan invited by the Chinese Taipei University Sports Federation (CTUSF) and Fu Jen Catholic University** with two officers, **Dr. Rajat Ray, Dean of Students** and **Dr. Aparup Konar, DoP** and ten students across Jadavpur university during **September 02-07, 2019**.
2. **Recognition as International Expert on Circular Economy by UNCRD, DESA** : Invited to act as the expert in Preparation of a Report on Triangular Cooperation in promoting 3R and Circular Economy in the Asia Pacific” to be completed by December 2020.
3. **Member in the TG- Sustainable Technologies, STIP 2020, GoI** : Designated as member by the Office of Principal Scientific Adviser to the Government of India (Office of PSA) and the Department of Science and Technology (DST) for formulating India’s new Science, Technology, and Innovation Policy (STIP 2020). As part of the STIP 2020 policy drafting exercise, 21 thematic groups (TGs) to work from June 2020.
4. **Recognition by SINTEF, Norway to work on Micro plastics and marine littering** : Invited to work as expert and lead the activities in India in the Ocean Plastic Turned into an Opportunity in Circular Economy (OPTOCE), Collaborative Research Project to Combat Marine Littering and Micro-plastics in Asia, consisting of the team from India, Thailand, Vietnam, China and Norway), funded OPTOCE-project, SINTEF, Norway, to start in Nov 2020.
5. **Advocacy of Anti Plagiarism system** : As the Chairman of the concerned committee, he lead the team in developing the “**Anti Plagiarism Policy, 2019, Jadavpur University**” and implemented from 1<sup>st</sup> December 2019 at the FET, Jadavpur University for all theses to be submitted for the partial fulfillment of the Phd, M. Phil and M. E degree.
6. **Selected as the Chairman, 10<sup>th</sup> International Conference on Sustainable Waste Management, 9<sup>th</sup> IconSWM 2019** to be held at JU, Kolkata, India to be held during December 2-4, 2020 on virtual platform.
7. **Expert of United Nations Centre for Regional Development (UNCRD)** : Prof Sadhan Kumar Ghosh of mechanical engineering department Invited and joined as the member of the Drafting Committee of State of the 3Rs in Asia and the Pacific to its 6th meeting held from 22 to 23 June 2017 in Tokyo, Japan, in collaboration with the Institute for Global Environmental Strategies (IGES) and supported by the Ministry of the Environment Japan.
8. **Chair elect 2017** : Prof Sadhan Kumar Ghosh of mechanical engineering department has been elected the Chairman of the 7th International Conference on Solid Waste Management, 7th IconSWM to be held at Hyderabad during December 15-17, 2017 as the pre event of the 8th Regional 3R Forum to be organised by the MOEF CC & MoUD, Govt. of India and UNCRD and Ministry of Environment Japan.

9. **Initiation of "Model Source Segregation System of Waste 2017" at Jadavpur University**  
:The university wide "Model Source Segregation System of Waste 2017" has been initiated in Jadavpur University by Prof Sadhan Kumar Ghosh of mechanical engineering department to comply with the SWM Rules 2016 in Jadavpur University Campus on the World Environment Day, the 5th June.
10. **Consultant to UNDESA, Department of Sustainable Development, UNCRD, Japan, 2017**  
: UNCRD, UNDESA/DSDengaged Prof Sadhan Kumar Ghosh of mechanical engineering department, as the Consultant, to develop a country report on current status of "3R policy implementation in India" related to Project "State of the 3Rs in Asia and the Pacific" and to contribute to the 8th Regional 3Rs Forum in Asia and the Pacific.
11. **Expert of APO, Japan 2017** : Prof Sadhan Kumar Ghosh of mechanical engineering department developed the India Report within the international collaborative research project on "Green Productivity for the Base of the Pyramid for Sustainable Development in APO Member Countries" funded by Asian Productivity Organisation, Japan and China Productivity Council, Taiwan, ROC.
12. **Host Scientist for Post Doc Research:** Dr Rabetokotany Rarivoson Nantenaina, Mention Ingénierie Pétrolière Ecole Supérieure Polytechnique, Université' Antananarivo, BP 1500 Ambohitsaina, Antananarivo 101, MADAGASCAR worked for post doc research for a month under the guidance of Prof Sadhan Kumar Ghosh under C V Raman International Fellowship for African Researchers 2014 program in January – February 2017.
13. **Editor's Choice Paper for August 2016: Paper** "Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations" was selected as the Editor's Choice Paper for August 2016 by *Waste Management & Research*, 34(8), 693-707.
14. **International Expert of UNCRD** (United Nations Centre for Regional Development) : Acted as the International Expert of UNCRD for preparation of the country document on the "Potential of economic utilization of biomass waste in India~Implications towards SDGs' and as the Facilitated /Moderated for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the "7th Regional 3R forum in Asia and the Pacific", 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia.
15. **International Expert of APO, Japan** (Asian Productivity Council, Japan) : Acted as the International Expert of APOat the CPC (China Productivity Council, Taiwan) in the Research on GP for the Base of the Pyramid for Sustainable Development in APO Member Countries with Coordination meeting during 3-5 May, 2016 at Taipei, ROC for one year , May 2016 – April 2017.
16. **Invited & delivered the Opening Plenary Speech in Philadelphia, USA in 32<sup>nd</sup>**International Conference on Solid Waste Technology and Management, on "3R and Circular Economy in Waste Management", by Widener University, USA held during March 19-22, 2017.
17. **Invited to deliver The opening Plenary speech in Philadelphia, USA on** "Global Circular Economy in Waste Management in Asia", in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held in April 2016.

18. **Invited to act as the Organising Chairman** of the 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017.
19. **Selected as the Chairman**, 7<sup>th</sup> International Conference on Solid Waste Management, 7<sup>th</sup>IconSWM 2017 to be held at PJTSA University, Rajendranagar, Hyderabad, India to be held during December 15-17, 2017.
20. **Collaboration with Tsinghua University, Beijing, and Hefei University, Hefei, China :** Extended the additional research collaboration of the existing one between Prof. Sadhan Kumar Ghosh *of mechanical engineering department and Prof Jinhui Li, of the department of environment engineering at Tsinghua University*, and Basel Convention Resource Centre, Beijing, China for next one year during October 22-24, 2016 at Beijing, China and Prof Wu Ke and Mr Honglei of Hefei University, Hefei, China in May 2016.
21. **Collaboration initiation with the University of Danang, Vietnam and National University of Laos, Vientiane:** Collaborative meeting initiated with the researchers of University of Danang, Vietnam and National University of Laos, Vientiane for joint research and publication between Prof. Sadhan Kumar Ghosh *of mechanical engineering department and faculty members of different departments of both Universities* held during October 25-26, 2016 at Laos, Vientiane.
22. Carried out interactive sessions in New Castle University, Cardiff University, Loughborough University and Aston University, UK for potential research collaboration in June 2015 with a 6 faculty member team.
23. Visited Director of Centre for Asian Studies in Kunming for potential research collaboration in October 2015.
24. Carried out interactive sessions in University of Thai Chamber of Commerce, Thailand on 7th March 2016.
25. **Excellence Paper Award 2015:** in Miyanyang, China the ICWMT 10, International Conf on Waste Management and Technology, by BCRC, Tsinghua University for the paper "E-Waste Supply Chain Analysis : Findings from pilot studies in India, China, and the UK".
26. **Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Global Circular Economy in Waste Management in Asia”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held in April 2016.
27. IconSWM 2015 Excellent Award: in, Bangalore India the 5th International Conference on Solid Waste Management, Bangalore, India, at IISc Bangalore, for the paper “Effect of variation in the chemical constituents of wastes on the co-processing performance of the cement kilns”, pp 881-887.
28. Excellent Paper Award 2015: in Miyanyang, China the ICWMT 10, International Conf on Waste Management and Technology, Miyanyang, China by BCRC, Tsinghua University for the paper “Co-processing of industrial waste in cement kiln – a robust system for material and energy recovery”, pp 317-325. (Excellent Paper Award).
29. Best Paper Award 2015 : in New Delhi, India the 14th NCB International Seminar on Cement and Building Materials, New Delhi, India for the paper “Disposal of Wastes By Co-Processing

in Cement Kilns - Influence Of Their Varying Characteristics on Critical Kiln Emission Parameters”.

30. **Invited to act as the Co-Chairman** of the 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017.
31. **Chairman**, 5<sup>th</sup> International Conference on Solid Waste Management to be held at Indian Institute of Science, Bangalore, India.
32. **Selected as the Chairman**, 6<sup>th</sup> International Conference on Solid Waste Management to be held at Jadavpur University, Kolkata, India during November 24-26, 2016.
33. **MOU executed between Jadavpur University and Aston University**, UK for 5 years with Prof. Sadhan Kumar Ghosh as the nodal person.

#### **Collaborative Programmes by Prof Sadhan K Ghosh: (2014-15)**

1. Collaborative research activities on Service Learning with Fu Jen Catholic University, Taiwan.
2. Collaborative research with Industrial and System Engineering department, IIT Kharagpur.

#### **Major Achievement of Prof Sadhan Kumar Ghosh (2014-15)**

3. **Best Paper award by the Tsinghua University, China for the** “Comparative analysis of E-waste Supply Chain in India, China and the UK” in 9<sup>th</sup> International Conference on Waste Management and Technology; Beijing, China, on 31<sup>st</sup> October, 2014,
4. **Best Paper award by the Tsinghua University, China for the** “Bio energy production utilising Biomass” in 9<sup>th</sup> International Conference on Waste Management and Technology; Beijing, China, on 31<sup>st</sup> October, 2014.
5. **Invitation for delivering the Opening Plenary Speech in USA** - Invited to deliver the Opening Plenary Speech in the 30<sup>th</sup> International Conference on Solid Waste Technology and Management, Philadelphia, PA U.S.A by Widener University, March 15-18, 2015.
6. **Invited to be the Member of the International Scientific Committee**, International Conference on Solid Waste 2015, Hong Kong Baptist University, Hong Kong
7. **Invited to be the Member of the International Scientific Committee**, International Conference on Solid Waste 2015, Hong Kong Baptist University, Hong Kong.
8. **Invited to be the Member of the International Scientific Committee, and delivering the Keynote speech** in the inaugural session over skype by Faculty of Technical Sciences "Mihajlo Pupin" Zrenjanin, University of Novi Sad, Republic of Serbia, Budapest, Hungary in the 4<sup>th</sup> International Conference Ecology of Urban Areas 2014“ held during Oct 9-10, 2014.
9. **Invited to be the Member of the International Steering Committee**, International Conference on Solid Waste Management and Technology, Tsinghua University, China.



## 19. SERVICES AND AFFILIATIONS/RECOGNITIONS

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### MEMBERSHIPS OF GOVERNMENT BODIES

1. Convenor, BIS CHD 34, Subcommittee for developing standard of “Secondary Raw Materials and Circular Economy”, 2022 till date.
2. Member at BIS for ISO TC 323 Circular Economy, since 2020 till date.
3. Member, Technical Experts committee, Standardization of Refuse Derived Fuel (RDF) based on Municipal Solid Waste, Ministry of Housing and Urban Affairs, Govt of India, 2017-2018.
4. Committee Member, Syllabus committee in Public Service Committee, West Bengal, 2012.
5. Member, Technical Committee on SWM (Solid Waste Management) JAICA Project in Kolkata Metropolitan Development Authority (KMDA) , West Bengal, since 2011 till date.
6. Member, State level advisory committee for implementation and monitoring of Plastics Waste management and handling rule 2011 in West Bengal since 2011.
7. Member, National panel for coordinating with ISO TC 207 on carbon footprints and water footprints at BIS in CHD 34, Govt. of India since 2010.
8. Member, PCD 12 in BIS, Govt. of India since 2007.
9. Member, Consent committee in WB Pollution Control Board in 2006 & 2007.
10. Member, Jury Board on Environment Excellence Award 2007, 2008 & 2009, Govt. of West Bengal, India.