# Dr. Shibayan Sarkar

Publications	<ul> <li>(i) International Journals:</li> <li>(ii) National Journals:</li> <li>(iii) International Conferences:</li> <li>(iv) National Conference:</li> <li>(v) Reports:</li> <li>(vi) Books / Book Chapters:</li> <li>(vii) Patent:</li> </ul>	32, SCI (31) 3 16 6 3 2 3	No Name of Burning
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Web of Science citation report

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		Average Citations per Year
4	11	9	3	14	16	12	15	40	48	78	93	109	91	94	106	8*	731*	45.69*

<sup>\*</sup> *till 21.01.2025* (h-index = 13, average citation per item = 25.93)

<u>https://www.webofscience.com/wos/woscc/basic-search</u> use search string - E-7937-2016, or, orcid id: 0000-0003-0554-6582

## **Publications**

International Journal Papers (Published) \* corresponding Author is marked with Green

- (1) Rakesh Kumar, S. Sarkar (2025) "Performance Evaluation of Modified Hydrokinetic Turbines in Pipe Flow with Velocity Correction Technique" Renewable Energy, *ELSEVIER*, 242, 122485, https://doi.org/10.1016/j.renene.2025.122485 (Impact Factor: 9.0), [SCI Journal] [Web of Science] [Q1] (Accepted on 21.01.25)
- (2) Rakesh Kumar, Aditya K. Nag, S. Sarkar (2024) "Performance analysis of spherically curbed hydrokinetic turbine arranged in In-line array in a closed conduit "Renewable Energy, ELSEVIER, 232, 121110, 10.1016/j.renene.2024.121110, (Impact Factor: 9.0), [SCI Journal] [Web of Science] [Q1] (Accepted on 30.07.24)
- (3) Ravindra Bhagat, Dinesh Kumar, S. Sarkar (2023) "Design modification and performance prediction of ellipsoid cross-flow hydrokinetic turbine" Renewable Energy, ELSEVIER, 219, 119475, https://doi.org/10.1016/j.renene.2023.119475, (Impact Factor: 9.0), SCI Journal Web of Science [Q1] (Accepted on 16.10.23)
- (4) Rakesh Kumar, S. Sarkar (2023) "Performance analysis of spherical-shaped Darrieus hydrokinetic turbine for an in-pipe hydropower system " Energy Conversion and Management, ELSEVIER, 294, 117690, https://doi.org/10.1016/j.enconman.2023.117600 (Impact Factor: 11.533), [SCI Journal] Web of Sciences [Q1] (Accepted on 28.08.2023)
- (5) Rakesh Kumar, S. Sarkar (2023) "Erosion analysis of Radial Flow Hydraulic Turbine components through FLUENT-EDEM coupling" Powder Technology, ELSEVIER, 428, 118800, https://doi.org/10.1016/j.powtec.2023.118800, (Impact Factor: 5.64), [SCI Journal] [Web of Science] [Q1] (Accepted on 07.07.2023)
- (6) Rakesh Kumar, S. Sarkar (2022). "Effect of Design Parameters upon the Helical Darrieus Hydrokinetic Turbine Performance", Renewable & Sustainable Energy Reviews, *ELSEVIER*, 162, 112431 (1-22), <a href="https://doi.org/10.1016/j.rser.2022.112431">https://doi.org/10.1016/j.rser.2022.112431</a>, (Impact Factor: 16.3), [SCI Journal] | Web of Science| [Q1] (Accepted on 01.04.2022)
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- (10) Aditya K. Nag, S. Sarkar (2020). "Experimental and numerical study on the performance and flow pattern of different Savonius hydrokinetic turbines with varying duct angle", Journal of Ocean Engineering and Marine Energy, Springer, 6, 31-53, DOI: 10.1007/s40722-019-00155-6, (Impact Factor: 1.6), SCI Journal [Web of Science]
- (11) Manbodh Kumar Das, S. Sarkar, B S Choudhary (2019). "Structure Analysis of Dragline Tooth and its Wear Prediction", Transactions of the Canadian Society for Mechanical Engineering, Canadian science publishing, 43(4): 526-534, DOI: 10.1007/s40722-019-00155-6, (Impact Factor: 0.573), [SCI Journal] { Web of Science } [Q4]
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- (15) N. K. Gautam and S. Sarkar (2018). "Estimation of Crop Water Requirement and Assessment of Irrigation Water Distribution Cost for Rice Production Using Pipe Network in an Indian State", Polish Journal of Environmental Studies, *HARD Publication*, Vol.27, No.3, 1071-1083, https://doi.org/10.15244/pjoes/76313, (Impact Factor: 1.383), [SCI Journal] [Web of Science] [Q4]
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- (18) D. Kumar and S. Sarkar (2016). "Numerical investigation of Hydraulic load and Stress Induced in Savonius Hydrokinetic Turbine with the effects of Augmentation Techniques through Fluid-structure interaction analysis". Energy, *ELSEVIER*, Volume 116, Part 1, Pages 609–618, <a href="http://dx.doi.org/10.1016/j.energy.2016.10.012">http://dx.doi.org/10.1016/j.energy.2016.10.012</a> [SCI Journal] [Web of Science].

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- (20) S. Datta and S. Sarkar (2016) "A review on different pipeline fault detection methods", Journal of Loss Prevention in the Process Industries, *ELSEVIER*, 41, Pages 97-106, <a href="https://doi.org/10.1016/j.jlp.2016.03.010">https://doi.org/10.1016/j.jlp.2016.03.010</a> [Impact Factor: 2.795] [SCI Journal] [Web of Science]
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## National Journal Papers

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- (2) M.K. Das, S. Dewangan, H. Kumar, S. Chattopadhyaya, S. Sarkar, B.S. Choudhary (2016), "Wear analysis of cable shovel tooth," Journal of mines, metals and fuels (scopus), Vol. 64, Nos. 5 & 6, pp. 218-221, ISSN 0022-2755, May-June 2016.
- (3) R. Das, S. Sarkar, V. Koul (2016), "Erosion analysis of coal mine pipeline valves at different opening conditions," Journal of mines, metals and fuels (scopus), Vol. 64, Nos. 5 & 6, pp. 222-225, ISSN 0022-2755, May-June 2016.
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## **Conference Papers / Technical Notes**

- (1) Ravindra Bhagat, Dinesh Kumar, Shibayan Sarkar (2023) "Effects of Fins on The Performance of Vertical Alignment Cross-Flow Whirlybird Hydrokinetic Turbine", IOP Conference Series, Earth and Environmental Science, 1279(1):012008, DOI:10.1088/1755-1315/1279/1/012008, December 2023 (International)
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- (3) Indrajeet Yadav, Rakesh Kumar, Shibayan Sarkar (2023) "Effect of Particle size and shape on Erosion wear and performance of the centrifugal pump using ANSYS CFX", 11th International Conference on Contemporary Engineering and Technology 2023 (ICCET 2023)-1st-2nd May, 2023, Prince Shri Venkateshwara Padmavathy Engineering College, Chennai
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- (5) Rakesh Kumar and S. Sarkar (2022) "Performance analysis of hydrokinetic turbine arranged in Inline array within a closed conduit channel", Proceedings of 4<sup>th</sup> International Conference on Energy and Power (ICEP2022), hosted by the Military Institute of Science & Technology, Dhaka, Bangladesh in association with the Australian Society of Energy and Power (ASEP) from 11-13 December 2022, pp-12
- (6) Rakesh Kumar and S. Sarkar (2022) "Analysis of erosion behavior in Reaction type hydraulic turbine components through Different Wear Model", Proceedings of 4<sup>th</sup> International Conference on Energy and Power (ICEP2022), hosted by the Military Institute of Science & Technology, Dhaka, Bangladesh in association with the Australian Society of Energy and Power (ASEP) from 11-13 December 2022, pp-13

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- (16) D. Mondal, S. Sarkar, B. Paul (2015) "Feed Optimization of Raw Coal by Developing a Mechanised Receiving and Lump Breaking System", Proceedings of Second National Conference on *Mining Equipment: New Technologies, Challenges & Applications* (MENTCA 2015), Organised by Department of Mining Machinery Engineering, Indian School of Mines Dhanbad,09-10th October 2015, Jharkhand, India, pp-111-113
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- (22) Kumar, K. K. Deori, R. Krishanan and S. Sarkar (2011) "Prior Estimation of Water and Selection of Turbine for a Hydropower Site at Arunachal Pradesh, India", Proceeding of National Seminar on *Renewable Energy and Technology: Issues and Prospects (RETIP-2011)*, held on 2-3<sup>rd</sup> September 2011, RETIP-12, published on Feb 2012, in IJESR http://technicaljournals.org/TJ/index.php/IJESR, Manuscript ID: IJESR-Y12-TJ-SPL-B111
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### Books

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- (2) S. Sarkar and R. K. Rai, (2010). Hydrologic Modeling of Gauged and Ungauged Catchments: LAMBERT Academic Publishing GmbH & Co. KG, Germany, ISBN-NR.: 978-3-8433-7829-1

#### Patent

- (1) Aditya K. Nag and S. Sarkar (2022) "A SELF ADJUSTABLE FLAP BLADE HYDROKINETIC TURBINE", Application Number: 202231031891, dated 06/06/22, status: GRANTED PATENT No.- 531514, Date: 02/04/24, Sl No-033135171
- (2) R. Bhagat, D. Kumar and S. Sarkar (2022) "AN ELLIPSOID CROSS FLOW HYDROKINETIC TURBINE", Application Number: 202231069692, dated 03/12/22, status: published, Form 8 filed on Feb 24
- (3) R. Kumar and S. Sarkar (2023) "AN IN-PIPE HYDROKINETIC TURBINE (IPHKT) STRUCTURE", Application Number: 202331002558, dated 12/01/23, status: published