Dr. Dhananjay R. Mishra
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Education: M.E. (Production Engineering); Ph.D. (NIT Raipur)

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Areas of Interest: Solar thermal Applications, Renewable Energy, Solar Water Desalination.

Brief Profile:

Dr. Dhananjay R. Mishra is an associate professor at Jaypee University of Engineering and Technology in the Department of Mechanical Engineering. He obtained his Bachelor's degree in Mechanical Engineering) from Amravati University (M.S.), Master's degree (Production Engineering, Mech.Engg.) in 2007, from BIT, Durg of Pt. Ravi Shankar Shukla University, Raipur (C.G.), and Doctor of Philosophy in Mechanical Engineering from the National Institute of Technology Raipur (NITRaipur), Raipur, in August 2016.

His past affiliations include Suprabha Industries Ltd., Lucknow, as an Assistant Production Manager, Lecturer in the Department of Mechanical Engineering of Rungta College of Engineering and Technology, Bhilai, C.G., Lecturer in the Department of Mechanical Engineering of Shri Shankaracharya College of Engineering and Technology, Bhilai, C.G. and, Assistant Professor in Department of Mechanical Engineering of Disha Institute of Management & Technology, Raipur.

He has established State Level Energy Park at DIMAT, funded by MNRE through Nodal agency CREDA, and completed a research project titled "Determination of the parameters affecting heat transfer between the ground and fully or partially underground structures" sponsored by Chhattisgarh Council of Science and Technology at Disha Institute of Management & Technology, Chhattisgarh.

He has also successfully discharged responsibilities as an observer for different CSVTU, AIEEE, and PMT examination centres.

EDITOR OF PEER REVIEWED INTERNATIONAL JOURNAL

• International Journal of Thermodynamics & Catalysis, Gavin Publishers 5911 Oak Ridge Way, Lisle, IL 60532, USA.

ASSOCIATE EDITOR OF PEER REVIEWED INTERNATIONAL JOURNAL

• International Journal of Applied Research (ISSN Print: 2394-7500 | ISSN Online: 2394-5869 | CODEN: IJARPF) [Ref: AKINIK/LM/1]

Ph.D. Supervisions:

Defended:
1. Manoj Dubey (153205) Solar Thermal Applications, Jaypee University of Engineering & Technology, Guna, defended on 02/06/202.

2. Pankaj Dumka (173E001) Desalination of water using modified form of the single-slope solar still and double slope long still, Jaypee University of Engineering & Technology, Guna, thesis defended on 3rd April., 2021.
3. Mayank Sharma (14319006) Simulation of Heat and Mass Transfer within the Novel Solar Stills, National Institute of Technology Raipur, thesis defended on 9th Mar, 2021.
4. Girish Dutt Gautam (153202) Experimental investigations and multi-response optimization in pulsed Nd:YAG laser cutting of novel FRP composite materials, Jaypee University of Engineering & Technology, Guna, thesis defended on 15th Feb, 2020.

Ongoing:
1. Amiya Kumar Sahoo (193E001) Optimization of process parameters of an advanced machining process, Jaypee University of Engineering & Technology, Guna.
2. Ram Kumar (213E002) Solar water desalination, Jaypee University of Engineering and Technology, Guna

M. Tech. Thesis Guidance
1. Mayank Garg (162E001), "Multi-response optimization of EDDM for a Hastelloy", defended in May 2018)
2. Vivek Tiwari (142407),"Parametric optimization of EDM for Monel K-500 material", defended in 2016.
3. Priyaranjan Sharma (112603), "Multi-Response Optimization of EDM Parameters for INCONEL 600 and INCONEL 718", defended in 2013.

Publication@JUET

Publication details google profile link

Patents granted/published:

1. Mishra, D. R. Earth Solar Still Augmented with the Sandbag and Black Dust Cloth Covered Perforated Floating Plate. IN Patent 201,924,054,660 January 2023.
2. Mishra, D. R.; Dumka, P.; Sharma, S. Solar Distiller. IN Patent App. 362811-001 2023.
3. Mishra, D. R.; Puharta, Y. T. Atmospheric Water Generator. IN Patent App. 364878-001 May 2023.
4. Mishra, D. R.; Bisht, R.; Sahoo, A. K. Composite Laminate. IN Patent App. 363695-001 2023.
5. Shrivastava, A.K.. Mishra D. R., Saini, F., Beohar, I., Zehra,I., SEED AND FERTILIZER SPRAYER DRONE, IN Patent App 385527-001 2023

Patents Filed:

1. Mishra, D. R.; Srivastava, A. K.; Mehto, H. K.; Rajpoot, V. S.; Singh, R. K.; Arora, N. S.; Singh, J. SMART BIN. IN Patent App. 366189-001 June 16, 2022. [Examination Report has been Generated ,Online Reply Document Recived(FER generated on 30/09/2022)]
2. Mishra, D. R.; Dumka, P.; Sharma, S. Solar Distiller Device. IN Patent App. 364171-001 May 2022. [Application Status: Case is in Amended Case of Controller]
3. Mishra, D. R.; Dumka, P.; Sharma, S. DM Irrigation Device. IN Patent App. 363786-001 2022. [Application Status:At Technical Examination of Amended Application(FER generated on 23/06/2022)]
4. Mishra, D. R.; AwanaPuharta, Yugank T., H.; Yadav, S.; Tiwari, S. Air Water Distiller. IN Patent 365693-001 June 2022. [Application Status:Examination Report has been Generated,Case is Waiting for Examination Report Reply (FER generated on 29/09/2022)]

5. Mishra, D. R.; Dumka, P.; Sharma, S. Knurled Pencil. IN Patent App. 362880-001 2022. [Application Status: Examination Report has been Generated, Case is Waiting for Examination Report Reply (FER generated on 28/06/2022)]
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Book Published:

• P. Dumka, R. Dumka and D. R. Mishra, "Numerical Methods using Python (For scientists and Engineers)", BlueRose One, ISBN: 978-93-5704-464-6

Book Chapters Published:

1. G.D. Gautam, D. R. Mishra, "Pulsed Nd:YAG Laser Cutting: Accuracy Improvement and Parametric Influences," In Kibria G., Bhattacharyya B. (eds.) Accuracy Enhancement Technologies for Micromachining Processes, Lecture Notes in Mechanical Engineering. Springer, Singapore, pp. 109-119
21 Feb. 2020, https://doi.org/10.1007/978-981-15-2117-1_6(ISBN 978-981-15-2117-1) [Springer, Singapore]
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3. P.Dumka, R. Rathor, S.Sharma, K. Katiyar, H. Gautama, C. Gunawat and D. R. Mishra. "Impact of Coconut Husks on the Productivity of Conventional Solar Still: A Heat Transfer Study",. Current advances in Geography, Environmental and Earth Sciences, Vol. 4, June 2022, 1-14 (DOI: 10.9734/bpi/cagees/v4/2542B) [B.P. International]

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5. P. Mishra, , A. Sharma, D.R. Mishra, P. Dumka, (2023). Solving Double Integration With The Help of Monte Carlo Simulation: A Python Approach. International Journal of Scientific Research in Multidisciplinary Studies, 9(3), 6–10. https://doi.org/10.26438/ijsrms/v9i3.610

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4. AEJ - Alexandria Engineering Journal (ISSN: 1110-0168)
5. American Journal of Water Science and Engineering (AJWSE); (ISSN: 2575-1867)
6. Desalination (ISSN: 0011-9164)
7. Energy (ISSN: 0360-5442)
8. Environmental Science and Pollution Research (ISSN: 1614-7499)
9. Groundwater for Sustainable Development (ISSN: 2352801X)
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11. SSRG International Journal of Mechanical Engineering (ID: SSRG- IJME-1086)
12. Technology and Economics of Smart Grids and Sustainable Energy (ISSN: 2199-4706)
13. International Journal of Application or Innovation in Engineering & Management (IJAIEM) (ID: 1289) (ISSN:2319-4847)
14. Journal of Water Process Engineering (ISSN: 2214-7144)
15. Journal of the Brazilian Society of Mechanical Sciences and Engineering (ISSN: 1678-5878)
16. Journal of Thermal Analysis and Calorimetry (ISSN: 1388-6150)
17. Journal of Energy Storage (ISSN: 2352152X)
18. Journal of Advanced Research in Fluid Mechanics and Thermal Sciences (ISSN: 2289-7879)
19. Multidiscipline Modeling in Materials and Structures (ISSN: 1573-6105)
20. Materials Science for Energy Technologies (ISSN 2589-2991)
21. Process Safety and Environmental Protection (ISSN: 0957-5820)

Workshop/ training program organized:

• AWIM MTTP 2018 on 26th and 27th Oct 2018 at Jaypee University of Engineering and Technology, Guna and Kota respectively in association with the Mahindra and Mahindra
• One day workshop organized on “Support for Entrepreneurial and managerial Development for SMEs through Incubators”, a component of National Competitiveness Programme in collaboration with MSME, Indore at Jaypee University of Engineering and Technology, Guna on 09th March, 2016.

Invited talks delivered

1. An invited talk on "Utilization of nanomaterial's for enhancing the productivity of solar distiller units", has delivered in World Nanotechnology 2019 Conference on 15th April, 2019 at Dubai, UAE.
2. An invited talk on "An overview on active and passive solar stills", has delivered in 6th International Conference on "Pollution and It's Control through Agriculture, Pharmacy, Science and Technology" on 27th-28th February 2018.

3. An invited talk on "Solar water desalination techniques: An overview", has delivered in 4th International Conference on Challenges in Environmental Science and Technology, IC-CEST-2016, at SVNU, Sagar on 27th-28th February, 2016.
4. An invited talk on "Performance evaluation of sand bed single slop solar stills", has delivered in 3rd International Conference on Recent Trends in Science & Technology, IC-RTST-2015, at SVNU, Sagar on, 27th-28thFebruary, 2015.

Short Term Trainingprogram attainded:

1. A short-term training on "Power Generation Overview 660MW supercritical thermal power plant", organized by NTPC Limited (A Government of India Enterprise) at Power Management Institute from 17.12.2012 to 30.12.2012.
2. A short-term training on "660MW simulator training program" organized by NTPC Limited (A Government of India Enterprise) at Power Management Institute from 17.12.2012 to 30.12.2012.