



भाकृअनुप-राष्ट्रीय प्राकृतिक रेशा अभियांत्रिकी एवं प्रौद्योगिकी संस्थान  
12, रीजेंट पार्क, कोलकाता – 700 040, (आईएसओ 9001: 2015)

**ICAR-National Institute of Natural Fibre Engineering & Technology**  
12, Regent Park, Kolkata - 700 040, (An ISO 9001: 2015 Certified Institute)



## PROFILE

1. Full Name: Er. Manisha Hanumant Jagadale
2. Educational Qualification: M.Tech (Renewable Energy)
3. Designation: Scientist
4. ARS Discipline: Farm Machinery and Power
5. Date of joining in ICAR: 05/10/2020
6. Date of Joining in ICAR-NINFET: 12/01/2021
7. Working experiences (in years)
  - a. Research: 4 years
  - b. Teaching
  - c. Industry
8. Area of work (Five areas only)
  - a. Renewable energy
  - b. Ergonomics
  - c. Fibre Extraction
  - d. Automation and Instrumentation
9. Contact details
  - a. Mobile No: 9850135469
  - b. Email (Including ICAR email)

Official mail: [manisha.jagadale@icar.gov.in](mailto:manisha.jagadale@icar.gov.in)  
Personal mail: [manisha.jagadale.123@gmail.com](mailto:manisha.jagadale.123@gmail.com)
10. Professional Achievements (Awards / Best Papers/Appreciation)
  - a. Awarded Junior Research Fellowship by Indian Council of Agricultural Research, New Delhi, Govt. of India during M.Tech.
  - b. Awarded Senior Research Fellowship by Indian Council of Agricultural Research & IARI, New Delhi, Govt. of India during Ph.D.
  - c. Awarded IARI-Merit Medal Award for overall outstanding academic performance in the Ph.D. programme from IARI, New Delhi
  - d. Manisha Jagadale received best article award from Vigyan Varta: An International E-Magazine for Science Enthusiasts for the year of 2021
  - e. Manisha Jagadale, Sandip Gangil, Prateek Shrivastava, Nageshkumar T, V. B. Shambhu and L. K. Nayak received 2nd price for best paper presentation in National Hindi Scientific Seminar organized by ICAR-NINFET
  - f. Prateek Shrivastava, Nagesh kumar T, K. P. Singh, Manisha Jagadale, V. B. Shambhu and L. K. Nayak received 2nd price for best paper on “Numerical



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Modelling of Industrial Indian Hemp Fibre Extractor Using the Discrete Element Method” during 57th ISAE Annual Convention and International Symposium on Engineering Interventions for Making Millets a Global Food during 6-8 November, 2023 at UAS, Raichur Karnataka

11. List of publication (Numbers only)

- a. Research papers in National journal (NAAS rated): 08
- b. Research papers in international journal (NAAS rated): 08
- c. Popular articles:08
- d. Book Chapter: 06
- e. Books Edited
- f. Seminar Papers: 01
- g. Bulletin: 4

12. Seminar presentation (numbers only)

- a. Invited papers
- b. Research papers: 09

13. List the 10 best research publications in the whole career (Details)

1. **Jagadale Manisha.**, Gangil, S., and Jadhav, M. (2023). Enhancing fuel characteristics of jute sticks (*Corchorus Sp.*) using fixed bed torrefaction process. *Renewable Energy*, 215, 118992 (**Naas rating:14.8**)
2. **Jagadale, Manisha**, Sandip Gangil, Mahesh Jadhav, V. K. Bhargav, Prateek Shrivastava, T. Nageshkumar, and Niranjana Kumar. "Valorization of Jute sticks (*Corchorus olitorius*) by torrefaction process: optimization and characterization of torrefied biomass as upgraded fuel." *Biomass Conversion and Biorefinery* (2023): 1-15. (**NAAS RATING: 10.05**)
3. **Jagadale, Manisha**, K. N. Agrawal, C. R. Mehta, R. R. Potdar, Manoj Kumar, and Mahesh Jadhav. "A data-driven approach to predict anthropometric dimensions of Central Indian women workers via principal component and factorial analysis." *CURRENT SCIENCE* 124, no. 2 (2023): 215-225. (**NAAS RATING: 7.12**)
4. **Jagadale, Manisha**, K. N. Agrawal, C. R. Mehta, R. R. Potdar, and Nandni Thakur. "Estimation and Validation of Body Segment Parameters Using 3D Geometric Model of Human Body for Female Workers of Central India." *Agricultural Research* 11, no. 4 (2022): 768-780. (**NAAS RATING: 7.4**)



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5. **Manisha Jagadale**, Mahesh Jadhav, Nandni Thakur and Shailendra Gadge (2018) Effect of different shade net structures on reference crop Evapotranspiration. *International journal of Pure and Applied Bioscience*, 6(3):681-687.
6. Patel, Abhishek, Ajaykumar Kethavath, N. L. Kushwaha, Anandkumar Naorem, **Manisha Jagadale**, K. R. Sheetal, and P. S. Renjith. "Review of artificial intelligence and internet of things technologies in land and water management research during 1991–2021: A bibliometric analysis." *Engineering Applications of Artificial Intelligence* 123 (2023): 106335. **(NAAS RATING: 13.80)**
7. Prateek Shrivastava, **Manisha Jagadale**, Vidhya Bhushan Shambhu, and Laxmi Kanta Nayak. "Design and Simulation of Banana Pseudo-stem Fibre Extracting Raspador (Cylinder) Using FEA Technique." *Journal of Natural Fibers* 20, no. 2 (2023): 2200986. **(NAAS RATING: 9.51)**
8. Shambhu, V. B., Shrivastava, P., **Jagadale, M.**, Nayak, L. K., & Shakyawar, D. B. (2023). Development of Gender-Friendly Power Ribboner for Extraction of Green Ribbon/Bast from Jute Plants. *Journal of Natural Fibers*, 20(2), 2250076 **(NAAS RATING: 9.51)**
9. Jadhav, M. L., P. Mohnot, **Manisha Jagadale**, and B. M. Nandede. "Optimization of Design Parameters of Pneumatic Plug Tray Seeding Mechanism for Cabbage Seed." *Journal of Agricultural Engineering (India)* 60, no. 1 (2023): 14-23. **(NAAS RATING: 5.85)**
10. Jadhav, M. L., Mohnot, P., **Jagadale, M. H.**, & Nandede, B. M. (2023). Response surface modeling of low-cost pneumatic nursery protray seeder parameters for tomato (*Solanum lycopersicum*) seedlings. *Current Horticulture*, 83(3).
14. Training program attended : 10
15. Training program organized : 03
16. Professional Affiliations (Details)
  - a. Life member of Indian Society of Agricultural Engineers (LM- LM-11501) New Delhi, India
  - b. Annual member of the Society of Krishi Vigyan
  - c. Life member of The Indian Natural Fibre Society, Kolkata, India



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