भाकृअनुप-राष्ट्रीय प्राकृतिक रेशा अभियांत्रिकी एवं प्रौद्योगिकी संस्थान
12, रीजेंट पार्क, कोलकाता – 700 040, (आईएसओ 9001: 2015)
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12, Regent Park, Kolkata - 700 040, (An ISO 9001: 2015 Certified Institute)

# PROFILE

1. Full Name : Prateek Shrivastava
2. Educational Qualification : M. Tech
3. Designation : Scientist
4. ARS Discipline : Farm Machinery and Power
5. Date of joining in ICAR : October 5, 2020
6. Date of Joining in ICAR-NINFET : January 11, 2021
7. Working experiences (in years)
    a. Research : 9 years (3 years as a scientist at ICAR-NINFET, 5 years as junior project officer at IIT Kharagpur and 1 year as senior research fellow at ICAR-CIAE Bhopal)
    b. Teaching : Nil
    c. Industry : Nil
8. Area of work (Five areas only)
    a. Farm mechanization
    b. Precision agriculture and automation in agriculture
    c. Mechanization in natural fibre extraction
    d. AI and IoT in quality assessment of natural fibre
9. Contact details
    a. Mobile No : 09734045443
    b. Email : prateek.shrivastava@icar.gov.in; prateek.shrivastava@icar.org.in
10. Number of projects completed (As PI)
    a. Nil
11. Professional Achievements (Awards / Best Papers/Appreciation)
    a. **First Prize** for Oral Presentation of Research Paper: Prateek Shrivastava, Aishani Chawdhury, Manisha Jagadale, Nageshkumar T., Nilimesh Mridha, and Deb Prasad Ray. (2023). Jute (Patsan) ke apgalan hetu jal gunawatta maapdando ke mulyankan ke liye kam lagat wali microcontroller-adharit antarnihit tantra (embedded system) ka nirman. in 'National Hindi Scientific Seminar' on 'Prakritik sansadhano se desh ke unnayan vikas me adhunik takneeko ka yogdaan' held on 25 September 2023 during 'Hindi Fortnight Celebration'.
    b. **Second Prize** for Oral Presentation of Research Paper: Prateek Shrivastava, Nageshkumar T., K. P. Singh, Manisha Jagadale, V. B. Shambhu and L. K. Nayak in "57th Annual Convention of Indian Society of Agricultural Engineers On Agri-Food Systems' Transformation through Engineering Innovations" and "International Symposium on

Engineering Interventions for Making Millets a Global Food" at UAS, Raichur, Karnataka, held during November 06-08, 2023.

12. List of publications (Numbers only)
    a. Research papers in National journal (NAAS rated): 05
    b. Research papers in International journal (NAAS rated): 12
    c. Popular articles: 05
    d. Book Chapter: 10
    e. Books Edited: Nil
    f. Seminar Papers: 05
    g. Bulletin: 01
13. Seminar presentation (numbers only)
    a. Invited papers: Nil
    b. Research papers: 05
14. Patents Applied (Numbers only): Nil
15. Patents Granted (Details)
    a. Brajesh Nare, V. K. Tewari, **Prateek Shrivastava**, Chanchal Gupta (2023). A system of sugarcane bud planter integrated with fungicide application unit. Indian Patent (490572)
16. Technology Commercialised (five with details )
    a. Gender Friendly Power Ribboner developed by V. B. Shambhu, L. K. Nayak, Nageshkumar T, Manisha Jagadale and **P Shrivastava** was commercialized through signing of Memorandum of Agreement (MOA) between ICAR-NINFET, Kolkata and M/s JOY MAA TARA ENTERPRISES, West Bengal. (Date: 30.01.2023), License Fee: Rs.30,000.00
17. List the five major achievements in the career
    a. Published more than **fifteen research papers** as author/co-author in **peer-reviewed international journals**.
    b. Visited USA to present the research paper on **"IoT Based Real-Time Position Tracking and Engine Status Monitoring System of an Agricultural Tractor"** in the Annual International Meeting of ASABE at Boston, Massachusetts during July 07-10, 2019
    c. Awarded three times (i.e. 2018, 2019 & 2020) for assisting **Prof. V. K. Tewari, Director, IIT Kharagpur** in organizing the **"National Programme on Technology Enhanced Learning (NPTEL)"** online Certification course on **"Farm Machinery"** funded by Ministry of HRD, Govt. of India as **"Teaching Assistant".**

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

    a. Chouriya, A., Kushwah, A., Tewari, V.K., Gupta, C., **Shrivastava, P.** and Mahore, V., 2023. Development of PTO torque transducer based on an embedded digital wireless system for the 2WD tractor. Cogent Engineering, 10(2), p.2272342.

    b. Shambhu, V.B., **Shrivastava, P.,** Jagadale, M., Nayak, L.K. and 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), p.2250076.

    c. **Shrivastava, P.,** Jagadale, M., Shambhu, V.B. and Nayak, L.K., 2023. Design and Simulation of Banana Pseudo-stem Fibre Extracting Raspador (Cylinder) Using FEA Technique. Journal of Natural Fibers, 20(2), p.2200986.

    d. **Shrivastava, P.,** Tewari, V.K., Gupta, C. and Chouriya, A., 2023. HMI-assisted visual interface-cum-embedded system for measurement of tractor–implement performance parameters. Journal of Field Robotics, 1-22.

    e. **Shrivastava, P.,** Tewari, V.K., Gupta, C. and Singh, G., 2023. IoT and radio telemetry based wireless engine control and real-time position tracking system for an agricultural tractor. *Discover Internet of Things*, *3*(1), p.6.

    f. Nageshkumar, T., **Shrivastava, P.,** Saha, B., Subeesh, A., Shakyawar, D.B., Sardar, G. and Mandal, J., 2023. Defects identification in raw jute fibre using convolutional neural network models. *The Journal of The Textile Institute*, pp.1-9.

    g. Jagadale, M., Gangil, S., Jadhav, M., Bhargav, V.K., **Shrivastava, P.,** Nageshkumar, T. and Kumar, N., 2023. Valorization of Jute sticks (Corchorus olitorius) by torrefaction process: optimization and characterization of torrefied biomass as upgraded fuel. *Biomass Conversion and Biorefinery*, pp.1-15.

    h. Gupta, C., Tewari, V.K., Kumar, A.A. and **Shrivastava, P.,** 2019. Automatic tractor slip-draft embedded control system. *Computers and Electronics in Agriculture*, *165*, p.104947.

    i. Kumar, A.A., Tewari, V.K., Nare, B., Chetan, C.R., **Srivastava, P.** and Kumar, S.P., 2017. Embedded digital drive wheel torque indicator for agricultural 2WD tractors. *Computers and electronics in agriculture*, *139*, pp.91-102.

    j. **Shrivastava, P.,** Khandelwal, N.K., Jat, D. and Narwariya, B.S., 2017. Techno–economic evaluation of tractor operated raised bed planters and seed drills for cultivation of wheat crop. *International Journal of Agricultural Science and Research*, *7*(2), pp.349-362.

19. Training program attended (Numbers only): 05

20. Training program organized (Numbers only): 04

21. Professional Affiliations (Details)

    **a. Life member of the Indian Society of Agricultural Engineering (ISAE), New Delhi.**
    **b. Life member of the Indian Natural Fibre Society (TINFS), Kolkata.**