CURRICULUM VITAE

Name : Dr. Mohit Kumar

Designation : Assistant Professor (Agricultural Engineering)

Date of Birth : 13th July, 1994

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ACADEMIC QUALIFICATION:

B. Tech. in Agricultural Engineering (2012-2016) from Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (MS); M. Tech. in Farm Machinery and Power Engineering (2016-2018) from Punjab Agricultural University, Ludhiana (Punjab) on Project "Refinement and evaluation of sugarcane trench planter to suit local conditions"; and Ph. D. in Farm Power and Equipment (2018-2022) from Indian Agricultural Research Institute, New Delhi on Project "Design and Development of Cumin Harvester for Small Farmers".

AWARDS/DISTINCTION:

- Qualified ICAR-NET-2019 and ICAR-NET-2023.
- Awarded Young Scientist Award-2023 in 5th International conference on climate change and its impact held at SKUAST, Srinagar, J&K, India Qualified GATE by MHRD in 2019.
- Awarded IARI Fellowship for Ph. D. during 2018-2022
- Qualified ICAR SRF 2018
- Awarded ICAR-JRF fellowship during 2016-18.
- Awarded ICAR- National Talent Scholarship (NTS) during 2012-16.
- National level participation in "KRITAGYA-A National Level AgTech Hackathon Promoting Innovation in Farm Mechanization-2020"
- Presented working model in NIRMAAN- National level Tech Skill Expo XIth Edition on 28-29 March 2023 at SISTec, Bhopal (MP)
- Developed machine "Sugarcane Trench Planter" has been recommended by PAU in 274thmeeting of Research Evaluation Committee (REC) held on 08/08/2019.
- Associate Developer of technology "Field Performance Measuring Apparatus for Farm Implements" recognized by ICAR, New Delhi.
- First Prize in poster presentation in ISAE symposium organized at CIAE, Bhopal

EXPERIENCE:

- 1.5-year Research Experience as SRF under the project of All India Coordinated Research Project on Farm Implements and Machinery (AICRP on FIM) at ICAR-Central Institute of Agricultural Engineering, (ICAR- CIAE), Bhopal (MP)

PUBLICATION:

1. Research Paper/Review Paper: 27 Research paper published in different scientific journal.
2. Paper Presented in Seminar Symposium/Abstract: 3 Poster presented, 2 abstract and 1 conference paper published.
3. Book/ Book Chapter: 7 book chapter published
4. Article/technical bulletin: 8 popular articles published in different reputed magazine and 8 technical bulletins published.

SPECIALIZED TRAININGS:

- Four-month training on "Planning and Management in Densification Technology of Biomass Industries" from Maheshwari Biofuel briquetting plant Pvt. Ltd. Akola (MS)
- One-month training on "Operation, Assemblies and Testing of tractors" from Central Farm Machinery Training and Testing Institute, Budani (MP).
- One-month training on "Soil and Water Conservation" at ICAR-Indian Institute of Soil and Water Conservation, Udhagamandalam, Tamil Nadu.
- Six-week online course on "Employment generation among Rural Youth through Agripreneurship"
- 21 days training on Agriculture Drones Revolutionizing the future of agriculture, Agri Meet Foundation and Aviana
- One-month training on Computer Aided Design (Creo Elements/Pro), ICAR-CIAE, Bhopal
- 21 days winter school training on Robotics, Artificial Intelligence and Big data with Innovative cum Futuristic Engineering Interventions for Smart Agriculture

MEMBERSHIP OF SCIENTIFIC SOCIETIES:

- Life member, Indian Society of Agricultural Engineers.

BEST PUBLICATIONS:

1. **Kumar, M**., Sahoo, P. K., Kushwaha, D. K., Gudi, S., Singh, G., Mahore, A., Nalawade, R., Patel, A., Pradhan, N. C., Rahimi, M. (2023). Tackling the Constraints of Cumin Cultivation and Management Practices. Annals of Agricultural & Crop Sciences, 8(3), 114 **(Impact Factor: 2.8**)

2. **Kumar, M**., Dogra, B., Sanghera, G. S., & Manes, G. S. (2019). Modification and evaluation of commercially available sugarcane trench planter for its application under Punjab conditions. Sugar Tech, 21, 586-595 **(NAAS: 7.87)**.
3. **Kumar, M**, Sahoo P. K., Kushwaha D. K., Mani Indra, Pradhan N. C., Patel Abhishek, Tariq Aqil, Ullah Sajid, and Soufan Walid (2024). "Force and power requirement for development of cumin harvester: A dynamic approach." Scientific Reports 14, no. 1: 13666 **(NAAS: 10.30)**

4. Pradhan, N. C., Sahoo, P. K., Kushwaha, D. K., Makwana, Y., Mani, I., **Kumar, M.**, Ar.una T. N., and Soumya K V. (2023). A finite element modeling-based approach to predict vibrations transmitted through different body segments of the operator within the workspace of a small tractor. Journal of Field Robotics, 1-19 **(Impact Factor: 6.38)**

5. Upadhyay, A., Chandel, N. S., Singh, K. P., Chakraborty, S. K., Nandede, B. M., **Kumar, M**., & Elbeltagi, A. (2025). Deep learning and computer vision in plant disease detection: a comprehensive review of techniques, models, and trends in precision agriculture. Artificial Intelligence Review, 58(3), 92. **(Impact Factor: 13.90)**

6. Pradhan, N. C., Sahoo, P. K., Kushwaha, D. K., Mani, I., & **Kumar, M.** (2022). Actuating force for transmission controls in small farm tractor considering driver's comfort. The Indian Journal of Agricultural Sciences, 92(7), 876–881. (NAAS: 6.37).
7. Nalawade, R.D., Singh, K.P., Roul, A.K., Sonawane, S., Patel, A., Mahore, A., **Kumar, M**., Chaudhary, K. and Shelake, P., (2026). Development and analysis of micro-performance dynamics of rotary blade using discrete element method. Powder Technology, p.122210. **(Impact Factor: 4.60)**