

**ICAR – INDIAN INSTITUTE OF SUGARCANE RESEARCH  
LUCKNOW 226002, UTTAR PRADESH, INDIA**

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**Personal Information**

**Name**

**Dr Rajesh U Modi**



**Designation**

Scientist

**Division**

Agricultural Engineering Division

**Research Area**

1. Farm Machinery and Power Engineering
2. Sensor-based Agricultural Machinery
3. UAVs and Deep Learning

**Patent Details**

1. Manes GS, **Modi RU**, Mahal JS, Singh M and Dixit A. 2022. Tractor operated seeder for mat type paddy nursery. *The Patent Office Journal No. 17/2022*. Pp. 26733.
2. Ingole NA, Ingole SN, Deshmukh SP, **Modi RU** and Ingole DN. 2022. Actively re-circulating automobile based hatchery [ARAMBH]. *The Patent Office Journal No. 05/2022*. Pp. 7098.

**External Funded Projects**

1. Agri Drone Project: RKVY- Scheme Code-9145 (₹ 35.0 Lakhs).

**Publications**

1. **Modi RU**, Chandel AK, Chandel NS, Dubey K, Subeesh A, Singh AK, Jat D and Kancheti M. 2023. State-of-the-art computer vision techniques for automated sugarcane lodging classification. *Field Crops Research* 291:108797. <https://doi.org/10.1016/j.fcr.2022.108797>. (IF: 6.14)
2. **Modi RU**, Manes GS, Mahal JS, Dixit AK and Singh M. 2022. Design of an innovative tractor-operated seeder for mat type paddy nursery. *Journal of Scientific and Industrial Research* 81(6): 683-694. <https://doi.org/10.56042/jsir.v81i06.57997>. (IF: 1.05)
3. **Modi RU**, Manes GS, Mahal JS, Dixit AK and Singh M. 2022. Development and evaluation of tractor operated seeder for mat type paddy nursery under controlled field conditions. *Agricultural Mechanization in Asia, Africa, and Latin America* 53(3): 54-63. (IF: 0.14)
4. **Modi RU**, Manes GS, Mahal JS, Dixit AK, Singh A and Mahal AK. 2022. Field evaluation of tractor operated seeder for mat type paddy nursery. *Indian Journal of Agricultural Sciences* 92(9): 1066-1070. <https://doi.org/10.56093/ijas.v92i8.108615>. (IF: 0.37)
5. **Modi RU**, Singh J, Bhattacharya TK and Singh TP. 2019. Methyl ester of cottonseed oil blended with ethanol as a renewable fuel on a multi-cylinder CI engine. *Agricultural Engineering Today* 43(1): 20-26. (NAAS: 5.3)

### Books or Chapter Published

1. **Modi RU**, Manjunatha K, Gautam PV, Nageshkumar T, Sanodiya R, Chaudhary V, Murthy GRK, Srinivas I and Rao CS. 2020. Climate-smart technology based farm mechanization for enhanced input use efficiency. In: Srinivasarao C. et al., (Eds). Climate Change and Indian Agriculture: Challenges and Adaption Strategies. ICAR-National Academy of Agricultural Research and Management, Hyderabad, Telangana, India. Pp. 325-357.
2. **Modi RU**, Murthy GRK and Dhimate AS. 2021. *Jalwayu Smart Technique Adharit Mashinaikaran Se Unnat Krishi Samagri Ka Upyog*. In: Srinivasarao C. et al., (Eds). *Jalwayu Pariwartan aur Bhartiya Kirshi: Chunotiya, Anukulan aur Shaman Ranititya*, ICAR-National Academy of Agricultural Research and Management, Hyderabad, Telangana, India. Pp. 75-104.
3. **Modi RU**. 2022. Future prospects of artificial intelligence in sugarcane culture and the sugar industry. In: Shukla et al., (Eds). Winter school on recent approaches for doubling farmers income in sugarcane based cropping system from December 08-28, 2022. ICAR-Indian Institute of Sugarcane Research, Lucknow, UP, India. Pp. 41-47.
4. Swapna M, **Modi RU**, Baitha A, Rao GP, Li Y, Shukla SK and Solomon S. (Eds). 2022. Souvenir de Presentation. 7<sup>th</sup> IAPSIT International Sugar Conference and SUGARCON 2022. Sustainability of the Sugar and Integrated Industries: Issues and Initiatives, October 16-19, 2022, ICAR-Indian Institute of Sugarcane Research, Lucknow, UP, India. Pp. 312.
5. Singh AK and **Modi RU**. 2022. Enhancing income of farmers through engineering interventions in sugarcane based cropping systems. In: 55<sup>th</sup> Engineers' Day 2022 Souvenir, The Institution of Engineers (India), UP State Centre, Lucknow, UP, India. Pp. 62-67.

### Awards

1. **Pellizzi Prize 2020**: International best PhD on Farm Mechanization from Club of Bologna, Italy (Cash Prize: 800 Euro) in 30<sup>th</sup> CoB Members' Meeting, Bologna, Italy on October 22, 2021.
2. **ISAE-JAEI Best Reviewer Award 2022** in 56<sup>th</sup> Annual Convention of Indian Society of Agricultural Engineers, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India during November 09-11, 2022.
3. **Best Poster Award** (First) in the Technical Session I, 7<sup>th</sup> IAPSIT International Sugar Conference and SUGARCON 2022 on Sustainability of the Sugar and Integrated Industries: Issues and Initiatives held at ICAR-IISR, Lucknow, India during October 16-19, 2022.
4. **Best Oral Paper Award** (Second) in the Technical Session I, 7<sup>th</sup> IAPSIT International Sugar Conference and SUGARCON 2022 on Sustainability of the Sugar and Integrated Industries: Issues and Initiatives held at ICAR-IISR, Lucknow, India during October 16-19, 2022.
5. **Best Oral Paper Award** (First) in the National conference on the role of Agricultural Engineering in economic development and self-dependence during the COVID-19 situation (Hindi) held at ICAR-CIAE, Bhopal, India during July 28-29, 2021.
6. **Best Poster Award** in International Web-Conference on Smart Agriculture for Resource Conservation and Ecological Stability organized by Academy of Natural Resource Conservation and Management, Lucknow, India during October 29-31, 2021.