

Applications are invited for position of Project Associate in Suzuki Innovation Centre sponsored project

Project Title: *Design and Development of a Smart Single Pass Soil Inversion Solution for Stubble Management and Sowing Applications*

Position: Project Associate

Duration: Two Years

Stipend: Consolidated monthly stipend of Rs 17400/-.

About the project:

The project “**Design and Development of a Smart Single-Pass Soil Inversion Solution for Stubble Management and Sowing Applications**” aims to address one of North India’s most persistent environmental and agricultural challenges—paddy stubble burning. The project focuses on developing a novel *single-pass agricultural implement capable of performing slicing, discretizing, flipping, redepositing, and sowing* in one synchronized operation, inspired by the natural action of a manual spade. The system integrates mechanical design, kinematic compatibility, soil–tool interaction modelling, sensors, actuators, and control systems to ensure seamless coordination of slicing, flipping, conveyor movement, and sowing. Field trials, prototype fabrication, and expanded pilot testing are planned across farms in Patiala with objective of achieving TRL 6.

Job Description:

The Project Associate will support the design, development, and field testing of a **Smart Single-Pass Soil Inversion and Sowing System**. The role involves hands-on work in mechanical design, prototype fabrication, instrumentation, data collection, and analysis.

Key Responsibilities

- Assist in **CAD modelling**, design detailing, and mechanical analysis of system modules.
- Support fabrication, integration, and testing of mechanical components, sensors, and actuators.
- Conduct **soil–tool interaction studies**, draft force experiments, and field performance measurements.
- Coordinate and participate in **field trials**, data collection, and documentation.
- Assist in preparing technical reports, presentations, and publications.
- Work collaboratively with faculty, industry partners, farmers, and field staff.

Essential Qualifications

- **B.E./B.Tech in Mechanical/Mechatronics/Production/Agricultural Engineering** or related fields.
- **Final-year or pre-final-year B.E./B.Tech students** with strong academic calibre, innovative thinking, and a passion for hands-on engineering and problem-solving *may also apply*.
- Sound knowledge of **CAD tools** (SolidWorks, Creo, Fusion 360, etc.).
- Basic understanding of **mechanics, machines, manufacturing processes, or agricultural implements**.
- Ability to work independently as well as in a team during **field trials**, data collection, and testing activities.

Salary & Tenure

- **Salary:** As per project norms (approx. ₹17,400 per month consolidated).
- **Tenure:** Initially for **1 year**, extendable up to **2 years** based on performance and project requirements.

Last date of application: **26th December 2025**

How to Apply:

1. Interested candidates are requested to submit a detailed CV to through email with the
2. subject line as “Application for the Position of Research Associate in “SIC Project” to Dr. Sandeep Kumar Sharma at sksharma@thapar.edu before **26th December, 2025**.
3. The CV must include: academic history, GATE/ NET score (if applicable), work experience, contact details, past experience and the list of relevant projects undertaken.
4. Shortlisted candidates will be informed for the online interview by email only by **29st December, 2025**.
5. In case of any query related to above project, kindly email at sksharma@thapar.edu

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