



LJ University
University with a Difference

**LJ INNOVATION
VILLAGE**

MEET THE TEAM



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**LJ INSTITUTE OF ENGINEERING
AND TECHNOLOGY**



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SMART INNOVATION VILLAGE

BRIEF DESCRIPTION :-

Intelligent dustbin automatically separates wet and dry waste, high-efficiency solar panel follows the sun, automatic roof shelter protects terrace crops from rain, hands-free gate opens on approach, and vibration-sensitive early-warning system alerts during earth tremors.

01. WHY ARE WE DOING THIS PROJECT? (PROJECT RATIONALE)

This Smart Village IoT project solves rural issues: inefficient waste handling, limited solar use, unprotected terrace farming, manual gates, and no earthquake alerts—delivering clean, sustainable, safe, and convenient living.

02 WHICH PROBLEM DOES IT ADDRESS?

It addresses rural challenges: inefficient waste management, low solar energy use, unprotected terrace farming, inconvenient manual gates, and lack of early earthquake warnings for safer, cleaner village life.

03. WHAT ARE THE ALTERNATE SOLUTIONS OUT THERE?

Commercial smart bins use AI cameras/sensors, GPS-based solar trackers, motorized awnings for roofs, RFID/PIR gate openers, and MEMS accelerometer networks for tremor alerts—often more advanced but costlier.

04.

**WHAT MAKES OUR PROJECT STAND OUT FROM THE REST?
THIS IS YOUR UNIQUENESS OR INNOVATION.**

Our project uniquely integrates five low-cost, village-tailored IoT features into one affordable, solar-powered system—simple, easy-to-maintain, and fully focused on rural India's real daily needs.