

# VU students innovate in agriculture with high-capacity delivery drone

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Pic courtesy: Vishwakarma University



VU students create 'Shatbal', a 25kg delivery drone for farmers

**Pune:** Engineering students of Vishwakarma University (VU) have developed and deployed delivery drone 'Shatbal' that can carry 25kg and is being used to help farmers on their fields.

On a pilot basis, the drone is being used by farmers in the Pune district for spraying fertilisers on their fields and efficiently transporting seeds and other farming materials.

The students plan to scale the carrying capacity to 100kgs and expand its usage to the healthcare sector, where medicines can be transported during emergencies and in inaccessible remote areas.

The engineering department at the university leverages technology to address pressing social challenges through an academically ri-

gorous approach. Dean of science and technology at VU, Kailas Patil, said, "Our methodology emphasises the identification of unmet social needs and the application of state-of-the-art technology to develop solutions that are contextually appropriate, affordable, and accessible, particularly in rural and semi-urban regions."

'Shatbal' boasts an in-house-developed hyper-secure network security and communication protocol, ensuring resistance against denial-of-service (DoS) and man-in-the-middle (MITM) attacks.

One of the final-year students working on the project, Atharva Talathi, said, "Its advanced processor seamlessly integrates sensors with the

operating system, making it a powerful solution for secure and efficient delivery."

VU vice-chancellor Siddharth Jabade said, "Our efforts prioritise technology interventions that are designed for sustainability, utilising and enhancing locally available skills for both operation and maintenance."

The engineering department uses processes that are inclusive and participatory, placing end-users—especially those from rural and marginalised communities—at the core of technology development and deployment.

Head of the engineering science department at VU, Maya Kurulekar, said, "Shatbal is an essential tool for modern farming...Its advanced GPS and precision spraying technology ensure optimal coverage, reducing labour and resource wastage."