# Smart Farm Alerting and Safeguard System

**Prof. Swapnalini Pattanaik[1], Rushikesh Suryawanshi[2], Shridatt Bhimanvaru[3], Sachin Bake[4]**

Professor, Department of Electronics & Telecommunication Engineering[1]

Students, Department of Electronics & TelecommunicationEngineering[2,3,4]

JSPM's Rajarshi Shahu College of Engineering, Tathawade, Pune, Maharashtra, India

**Abstract:** *The agriculture sector is vital to India's economy; however, animal attacks on crop fields have become a common issue. Traditional methods, such as humanoid scarecrows and electric fences, have proven ineffective in protecting crops. To address this problem, a concept has been proposed that aims to protect crops without causing harm to animals. The concept proposes using image processing technology and machine learning concepts to detect animal movements. Once detected, a signal is sent to a controller which activates a device to create sound, and a signal is also transmitted via GSM to alert farmers and the forest department. The proposed system uses Raspberry pi, GSM, Buzzer, and CNN for animal detection and alert generation. This system aims to enhance agricultural security and mitigate the problem of animal attacks on crop fields.*

**Keywords**: Machine Learning, GSM, CNN

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