

# Smart Weeder with Feeding Android App for Face Detection

M. Logesh<sup>1</sup>, U. Monish Kumar<sup>2</sup>, Nandhakumar. K<sup>3</sup>, Narendhiran<sup>4</sup>, S. Sevegan<sup>5</sup>

Students, Department of Electronics and Communication Engineering (ECE)<sup>1,2,3,4</sup>

Professor, Department of Electronics and Communication Engineering (ECE)<sup>5</sup>

SRM Valliammai Engineering College, Chennai, India

**Abstract:** The "smart weeder with feeding" Agriculture-related research is being conducted in the modern period. India's population is growing daily, and to meet the country's growing food needs, agricultural sectors must be modernized. Mechanization increases productivity while requiring less input. Farmers continue to employ tried-and-true techniques. One of the main crops farmed in India is paddy. The lack of workers, low productivity rate, and increased physical labor needed for weeding and fertilizer feeding are the issues with paddy farming. Due to the feeding and welding processes for fertilizer, paddy farming takes extra time. A paddy weeder with a fertilizer feeder was designed and made to help with these issues. A weeder with a fertilizer feeder is a piece of agricultural equipment that is helpful to farmers. This machine was initially created in Solid Edge before being constructed. Weeds between two rows will be eliminated by the weeder. Many weeds may be eliminated quickly, and fertilizer is uniformly applied to each crop using dispensers, allowing for the simultaneous completion of two tasks. As a result, it saves time, money, and manpower.

**Keywords:** Agriculture, Paddy, Weeder, Feeder, Fertilizer

## REFERENCES

- [1] Rajshekar M "Simulation and Analysis of Low Cost Weeder" International Journal of Research in Engineering and Technology eISSN: 2319 pISSN:2321- 7308, Volume: 03 Special Issue: 03|May-2019|NCRIET (2019).
- [2] Li, Y., Guo, Z., Shuang, F., Zhang, M., and Li, X. (2022). Key technologies of machine vision for weeding robots: A review and benchmark. *Comput. Electron. Agric.* 196, 106880. doi: 10.1016/j.compag.2022.106880
- [3] A.O Hannure, S.P Ksheer Sagar, V.S Kodam, O.N Pathange "Literature review on automatic seed feeder". *International Journal of Engineering Trends and Technologies*, Volume 36, No7, 2020.
- [4] Vala, V. S., Kathiria, R. K. and Bheda, A. K. 2019. Performance evaluation of mini tractor operated rotary weeder. *International Journal of Chemical Studies*, 7(4): 1124-1127.
- [5] Mane Deshmuk Vijay "Design & fabrication of agriculture weeder" *International journal of innovation in engineering research & technology*, Volume03, Issue 03, 2020.
- [6] HP Pathade, Priya Shinde, Nilesh Magar, Sainath Mundaware "Multipurpose weeding machine". *International Journal of Multidisciplinary Research and Development*, Volume :2, Issue :4, 402- 405, April 2019.
- [7] Narode, Sonawane, Mahale, Nisal, Chaudhari, Bhane "Manually Operated Fertilizer Spreader". *International Journal of Emerging Technology and Advanced Engineering*, ISSN 2250-2459, ISO 90001: 2008 Certified Journal, Volume 5, Issue 2, February 2021.
- [8] Akhijahani, H. S., Arabhosseini, A., & Kianmehr, M. H. (2019). Effects of vehicle and rotational speeds on performance and mechanical damage of new a mechanical inter-row weeder, *Middle East Journal of Scientific Research*, 7(6), 869-875.

- [9] Hall, D., Dayoub, F., Kulk, J., and McCool, C. (2018). "Towards unsupervised weed scouting for agricultural robotics," in 2018 IEEE International Conference on Robotics and Automation (ICRA). (Singapore: IEEE), 5223–5230.
- [10] Li, Y., Guo, Z., Shuang, F., Zhang, M., and Li, X. (2022). Key technologies of machine vision for weeding robots: A review and benchmark. *Comput. Electron. Agric.* 196, 106880. doi: 10.1016/j.compag.2022.106880
- [11] Raja, R., Slaughter, D. C., Fennimore, S. A., Nguyen, T. T., Vuong, V. L., Sinha, N., et al. (2019b). Crop signalling: A novel crop recognition technique for robotic weed control. *Biosyst. Eng.* 187, 278–291. doi: 10.1016/j.biosystemseng.2019.09.011
- [12] Vala, V. S., Kathiria, R. K. and Bheda, A. K. 2019. Performance evaluation of mini tractor operated rotary weeder. *International Journal of Chemical Studies*, 7(4): 1124-1127.