

# Potential aspects of robotics in Indian agriculture : Scope and future

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■ **ABSTRACT** : Robotics can play a very important role in Indian agriculture as far as the constantly decreasing size of farming fields is concerned. In comparison to foreign countries where the size of farm is large and heavy machinery can be used advantageously, this is not the case with Indian farms. In the process streamlining limited economic resources at farmer, robotics can reduce the burden by cutting cost on purchase in terms of quantity. Robotics uses small sized equipments to do the same operation which is very suitable for small sized farms. Precise use of costly pesticide and fertilizer can also be done by the automated robots. These brained machines can effectively perform repetitive agricultural operations with no or little error. The robots can also alleviate problems of traditional farming like soil compaction, use of renewable energy resources, drudgery etc. Many researchers have developed different agricultural robots in India and foreign countries. This paper deals with different robotic systems used in various agricultural operations in India as well as other countries. These are classified into several task groups such as planting, weeding, pest control, harvesting or picking, etc.

■ **KEY WORDS** : Robotics, Agriculture, Drones, Autonomous vehicles, Precision farming

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