S. No	TITLE &AUTHOUR	YEAR & PUBLICATION	METHODOLOGY	ADVANTAGE	DRAWBACK
1.	Smart farming Using IOT Reshma S, Ramya J, Swathi S, Srinidhi B M, Sindhu R N	April 2019 IJISRT International Journal of Innovative Science and Research Technology	controlling the irrigation process and preservation of water resources automatically by Raspberry Pi, python program , Moisture sensor , Rain water sensor , Infrared sensor , Soil moisture sensor	Raspberry Pi 3 is cost efficient.	Rain sensor is sensitive to temperature and salinity
2.	Smart Crop Protection System from Animals M. Jaya Prabha, R. Ramprabha, V.VasuBrindha, C. Asha Beaula	2020 Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP).	Arduino Uno microcontroller, Ultrasonic sensor, IR sensor & GSM module	Increased yields	Not appropriate in certain conditions
3.	IOT Based Wireless Sensor Network for Prevention of Crops from Wild Animals S. R. Chourey, P. A. Amale, N. B. Bhawarkar	2017 International Journal of Electronics, Communication & Soft Computing Science and Engineering IJECSCSE	A wireless sensor network (WSN) , sink node , Master node . Sensor node requires four basic units i.e. sensing unit, processing unit, transceiver unit and a power unit. Actuator.	Low cost wireless sensor node.	The boards are not protected against harsh, dirty or electrically noisy environments

4.	Smart Crop Protection System Mohit Korche, Sarthak Tokse, Shubham Shirbhate, Vaibhav Thakre, S. P. Jolhe	**2021** IJLES(International Journal of Latest Engineering Science)	PIR sensors, Embedded PIC Microcontroller,LCD (16×2)N(JHD162A), PIEZO Buzzer, GSM based technology	This is used to saving time and also preventing the loss of crops.	losses of adjacent crops and contamination of groundwater
5.	Smart Crop Protection System from Animals and Fire using Arduino Srikanth N, Aishwarya, Kavita H M, Rashmi Reddy K, Soumya D B	**April 2019** International Journal of Engineering Research in Electronics and Communication Engineering (IJERECE)	Arduino Uno Microcontroller AT Mega328P, GSM Module, SMOKE SENSOR (MQ-2), SMOKE SENSOR (MQ-2), DC MOTOR	This will also help them in achieving better crop yields thus leading to their economic wellbeing.	Not appropriate in certain conditions
6.	SMART IRRIGATION AND CROP PROTECTION FROM WILD ANIMALS N.Penchalaiah , D.Pavithra , P.Bhargavi , D.P.Madhuri4, K,Eliyas Shaik , S.Md.Sohaib	**April/2020** RFID development community	SOIL MOISTURE SENSOR, PIR SENSOR, LCD, DHT11 SENSOR (TEMPERATURE / HUMIDITY SENSOR), SPEAKER, GSM, RELAY	Measuring four parameters such as soil moisture, temperature, humidity and the system also includes intruder detecting system.	The proposed system is only limited for a village surrounded area that is near to the forest area
7.	Smart Crop Protection System Using IOT Shishir Bagal, Krunal Mahajan , Riya Parat , Ekta Zade , Shubham Khante	**APRIL 2021** International Research Journal of Engineering and Technology (IRJET)	Arduino UNO ,NodeMcu controller, LCD display, Solar charged converter and a Micro SD Card	It works on Solar Power and they uses solar charged convertor to charge the battery efficiently.	software failure, internet connectivity problem

8.	Smart Crop Protection System Mohit Korche, Sarthak Tokse, Shubham Shirbhate, Vaibhav Thakre, S. P. Jolhe	**2021** IJLES(International Journal of Latest Engineering Science)	PIR sensors, Embedded PIC Microcontroller,LCD (16×2)N(JHD162A), PIEZO Buzzer, GSM based technology	This is used to saving time and also preventing the loss of crops.	losses of adjacent crops and contamination of groundwater
9.	Microcontroller based Smart Crop Protection System to Detect Fire and Animals

Premjyoti G Patil,B. | **April-2020** IJISRT(International Journal of Innovative Science and Research Technology) | PIR sensor, IR transmitter- Receiver Laser source,Perimeter control system, microcontroller, smoke sensor,GSM | This would prevent starvation of the animals, thus help maintaining ecologica | Improper implementation can cause much more harm than good |
| 10. | Protecting Crops From Birds, Using Sound Technology In Agriculture

Guguloth Devilal P. RAMA RAO | **JULY/2018** International Journal of Management, Technology And Engineering | Arduino, APR9600,Power Supply, Buzzer,Voice Module, Infrared Obstacle Sensor Module | Reduce human work , More efficient | bird damage became much worse after the introduction of new varieties such as Kosui, which have higher sugar content than traditional varieties |