## Ideation Phase

### Literature Survey

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| **Title** | IOT Based Smart Crop Protection System for Agriculture |
| **Domain Name** | Internet Of Things (IOT) |
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| **Team Member** | Keerthana E  Subasri L  Sridivya K |
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| **Team ID** | PNT2022TMID29149 |
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| **Department** | Electronics and Communication Engineering |

### Abstract

A centralizing method in the area of IIoT (Industrial Internet of Things) contrived for understanding agriculture which is preceding the arrangements low-power devices . This paper yields a monitoring procedure for farm safety against animal attacks and climate change conditions. IIoT advances are frequently used in smart farming to emphasize the standard of agriculture. It contains types of sensors, controllers. On behalf of WSN, the ARM Cortex-A board which consumes 3W is the foremost essence of the procedure . Different sensors like DHT 11 Humidity & Temperature Sensor, PIR Sensor, LDR sensor, HC-SR04 Ultrasonic Sensor, and camera are mounted on the ARM Cortex-A board. The PIR goes high on noticing the movement within the scope, the camera starts to record, and the data will be reserved onboard and in the IoT cloud, instantaneously information will be generated automatically towards the recorded quantity using a SIM900A unit to notify about the interference with the information of the weather conditions attained by DHT 11. If a variance happens, the announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog of the mobile of the person to take the necessary action.

### Literature Survey

IIOT tendencies are often utilized in smart farming to boost the standard of agriculture . Farming the pillar of supports our country to the general commercial development. But our productivity is extremely low as associated to world standards . People from rural areas drift to an urban area for other worthwhile trades and they can't concentrate on agriculture . There are many disadvantages of the current traditional agricultural methods namely

costlier and manual monitoring of the agriculture field . Specifically, small-scale smart irrigation systems are utilized to provide the solution for dissimilar variety of plants in spite of getting the solution for moisture related issues Weather conditions like temperature, humidity and moisture are difficult to check manually frequently .Farmer suicide is turning into big problem due to low productiveness amongst farms . This low productiveness is due to the fact of two main reasons, Crop ruined by means of untamed weather conditions untamed animal attacks, small types of species, insects, some hazardous snakes and weather circumstances.Within the existing system, electrical fencing is used to give up untamed animal assaults on agricultural vegetation which leads to the death of animals . The fundamental objective is to provide a fantastic answer to this problem, so that losses incurred will be minimized and farmers will have an accurate crop yield . This low productivity is because of the fact of two most important motives i.e. Crop destroyed via untamed animals and Crop damaged by using nature object. The main objective of this assignment is to furnish a fantastic answer to this trouble, as a result with the purpose of the economic losses incurred through the support of our farmers are minimized to get truthful crop yield . This ensures complete security of vegetation from animals and defending the farmers loss. In the proposed system Raspberry Pi, PIR sensor, web camera, ultrasonic sensor, LDR sensor, temperature sensor, humidity sensor, moisture sensor, buzzer and monitor are used . This field of this effort remains towards withdraw to monitor the system for crop security conflicting to subconscious occurrences and meteorological conditions When the moisture content is below a critical level which is determined by the sensor planted in the fields, as the system is automated the water pumps are switched on . This ensures complete safety of crops from animals also as from the weather conditions thus prevent the farmers loss.

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