

# Smart Farming :

- Firstly, we should need to know what smart farming is all about
- Internet of Things Smart technology enables new digital agriculture.
- Smart Farming has a real potential to deliver a more productive and sustainable agricultural production, based on a more precise and resource-efficient approach.
- "Smart farming" is an emerging concept that refers to managing farms using technologies like IoT
- Smart Farming has a real potential to deliver a more productive and sustainable agricultural production, based on a more precise and resource-efficient approach.
- Smart farming systems also enable careful management of the demand forecast and delivery of goods to market just in time to reduce waste.

# Sensors and IoT:

- Sensors to monitor and track the status of crops and insects
- In Internet of Things based smart agriculture, a system is formed to monitor the farmland with the help of sensors, which senses components like temperature,, humidity, soil moisture, etc.
- Sensors not only provides us the measurement of the parameter but also an intimation to do next for the field
- In Internet of Things based smart agriculture, a system is formed to monitor the farmland with the help of sensors, which senses components like temperature,, humidity, soil moisture, etc.
- The fields to perform advanced analytics, IoT is all set to take the agricultural industry to an advanced level.
- Installing wireless sensors among crops and attaching 'smart' ear tags to livestock could help farmers produce more food with less impact on the environment.
- By using various sensors, we can consume less man power and more output while monitoring t various parameters of fileds.

# Challenges:

- The most common challenge for the Internet of Things in agriculture is connectivity. Every area doesn't have proper internet connectivity.
- The second most common challenge for Internet of Things based Advanced Farming is the lack of awareness among consumers.
- The biggest challenges faced by IoT in the agricultural sector are lack of information, high adoption costs, and security concerns.
- The agricultural sector is particularly vulnerable to climate change because it is directly tied to land and water resources.
- Due to various reasons, some IoT components may get damaged like rain, flood, etc.
- Today's agriculture routinely uses heavy manpower when the farming fields are larger and cannot be covered without more workers.

# Advantages:

- By monitoring those parameters which will helps us to do the next processes for the better cultivation like auto-irrigation
- By making the farming work in a smarter way it will be beneficial for the farmers in order to attain the consumption of time and human power
- Increasing control over production leads to better cost management and waste reduction.
- Smart farming is highly efficient when compared with the conventional approach.
- Increasing control over production leads to better cost management and waste reduction.
- By using Smart farming, we can reduce the cost of labor and increase the usage of technology which gives us further development in future.