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| **s.no** | **Year/Autho r** | **IoT**  **Sub Verticals** | **Measures (Data collection)** | **Technologie s Used** | **Benefits of Proposed System** | **Challenges in Current Approach** | **Solution for Current Issues** | **Drivers of IoT** |
| 1 | Krishna et al (2017) | Smart  Farming  livestock manageme nt | Soil Moisture  Light intensity  Humidity  Temperature  Soil pH | Raspberry pi  Zig Bee  Wi-fi | Reducing labor costs  Helps to track the changes accurately occurring instantly in real time at the field. | lack of moisture in the fields  salinity lack of application of fertilizers Different sowing time. | Using wireless mobile robot performing various operations of the field. | Develop the capabilities of the robot. |
| 2 | Suciu et al (2016) | Smart Farming | Temperature | Mobile technology  GPRS | Improve the quality and safety of the products  Detecting plant diseases, flood. Etc. | Climatic  Change  High temperature  Low profit margin | Assist for cropmanagement by using smart agriculture | Allowing system to measure basic parameters for irrigation manageme nt. |
| 3 | Mahalakshmi et al (2016) | Water Managem ent  Crop Managem ent | Temperature  Humidity  Soil  Moisture  Light Intensity | Zig bee | Monitor crop field. Automate  the irrigation system. | Water consumption is high. | Continuous field monitoringwith the help of low-cost sensors. Reduces water consumption. Reduced power consumption. Increased crop productivity. Reduced wastage of crops | Reduced water consumptio |
| 4 | Ruengittinun et al (2017) | Smart farming | Temperature Humidity  PH  Electrical conductivity | Wi-Fi | Can farm in less space  Provides many products | Differential of temperature  Lack of time to manage and plant | Build a smart hydroponic eco system | Symmetric al  plantation to check the accuracy of the HFE across multiple  farms in the same area |
| 5 | Wicha et al (2017) | Water Management | Soil level  Temperature | Wi-fi | Efficient water management | High waterconsumption. | Managed water  system effective manner. | Reveals the  positive comparison results from the adaptive Wetting Front Detector (WFD). |