Literature survey

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| Ref No | Year and Publication | Objective | Methodology | Conclusion |
| 1 | 2019(IEEE) | A low cost, open  source Supervisory Control and Data Acquisition (SCADA) system for  solar photovoltaic (PV) system monitoring and remote control | Utilizes Internet of Things (IoT) SCADA  Architecture which incorporates web services for data analysis.  Arduino Uno micro-controller serves as a  Remote Terminal Unit to receive the acquired sensor data, Raspberry  Pi with a Node-RED programming tool. | Developed Dashboards and Charts showing the acquired data on Emmons’s server where an operator can monitor the data in the cloud using both a computer with internet access, and Emmons’s mobile app are presented in the paper. |
| 2 | 2018(IEEE) | This paper proposes a novel data collection technique using Unmanned Aerial Vehicles (UAVs) in dense wireless sensor networks (WSNs) using projection-based Compressive Data Gathering (CDG) as a solution methodology. | Developed device gathers data from heads to a remote sink to enhance efficiency by avoiding long range transmissions from heads to the sink. | Decomposed the problem into separate parts and propose a heuristic to solve each sub problem for large-scale network scenarios. |
| 3 | 2022(IEEE) | Wireless Sensor Networks should be self-automated and there must be a continuous power supply for the proper functioning of sensor networks. | Sensor nodes are established, and when data from the environment is meant to be collected and relayed to a base station. | This paper analyses the use of energy harvesting in sensor  nodes which is powered by batteries, dramatically lowering the cost of battery replacement. |
| 4 | 2023(IEEE) | Focuses on the problem of data collection in WSNs with the minimum mobile nodes. | Minimizing the number of mobile nodes, we formally  prove that the problem of minimizing the number of mobile nodes required by periodical data collection in WSNs is NP hard. We propose a path planning algorithm to minimize the number of mobile nodes. | Our simulation results show that our  approach can notably reduce the number of required mobile  nodes as much as 55.6% |
| 5 | 2022(IEEE) | Study is addresses to the ones that carry out their activity in the university environment, implementation of acquisition systems of audio signals. | Data acquisition systems are implemented using either the Arduino UNO development board or the Raspberry Pi 3B, board in both the graphical programming environment LabVIEW and Simulink. | Obtained Correct implementation of the two acquisition systems allows obtaining similar virtual results in the analysis of audio signals. |
| 6 | 2022(IEEE) | Sensed and collected data from sensor is communicated to the end user via the sink node using multi-hop transmission. | Wireless sensor network has been deployed with thousands of sensor node which are operated with energy Constrained battery. All the activities such as sensing environment parameters, processing, coding, transmission,  reception etc., involves energy consumption in WSN | This paper summarizes the energy consumed in a WSN and provides an insight for further research in WSN. |
| 7 | 2022(IEEE) | Digitizing the solar generation pattern serves various purposes, collected data being used for further research, forecasting of solar generation in future, identifying faults by analyzing the real time solar generation data | Raspberry  Pi with Internet of things (IOT) and the second method uses  Arduino Uno without IOT.  Direct voltage (DC), direct current (DC), temperature and light intensity are the parameters measured. | In this system we developed a data acquisition system to analyze solar generating data. |
| 8 | 2019(IEEE) | Introduce an alternative solution to the many existing IoT data acquisition and storage systems. | Present a self-designed and developed prototype electronic circuit extension for Raspberry Pi development board used for collecting sensor data. There is also presented a Pi4Java API based Java application used for sensor data collection and storage | Presented system is a full IoT data acquisition, storage and  visualization solution |
| 9 | 2020(IEEE) | Aiming at the defects of traditional networks, this paper proposes a scheme for collaborative data collection using multiple mobile nodes (MN) as sink nodes | Dynamic clustering algorithm is used to cluster the randomly arranged sensor nodes, and then a sensor node with higher energy is manually arranged at the virtual cluster center generated by the clustering algorithm. | This paper clusters and randomly arranges sensor nodes, and then manually arranges cluster head nodes on the generated virtual cluster center, and then divides the monitoring network into fan-shaped regions |