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| **Author(s) Name:** | Sajid Ibna Mahbub, Saima Sadia Ratri, Sultanul Arifeen Hamim, and Muhibul Haque Bhuyan | | |
| **Contact Email(s):** | muhibulhb@aiub.edu | | |
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| **Abstract:** |  |
| Abstract— This research work aims to reform the conventional farming system, making it smart and automated with the use of Internet of Things (IoT) technology. The work targeted to automate the poultry and fish farming system. As such, the system uses an Arduino Uno microcontroller as a digital controller integrated with an IoT to aid farmers in remote monitoring and controlling the farming system. The farming system consists of a poultry farm at the top and a fishing farm at the bottom of a vertical farming system. The system mainly monitors the critical parameters of the farming environment, such as pH value, temperature, humidity, dissolved oxygen levels, etc. through some sensors. Then it takes appropriate actions based on the sensed parameter values through some actuators, such as servomotor. DC motor, pump, fan, etc. to regulate the farming environment’s variables to the values within the acceptable ranges automatically. This would reduce the time and effort to be spent on farming significantly. Testing and evaluation of the system through Proteus software simulation and hardware implementation show that the target has been achieved. | |