

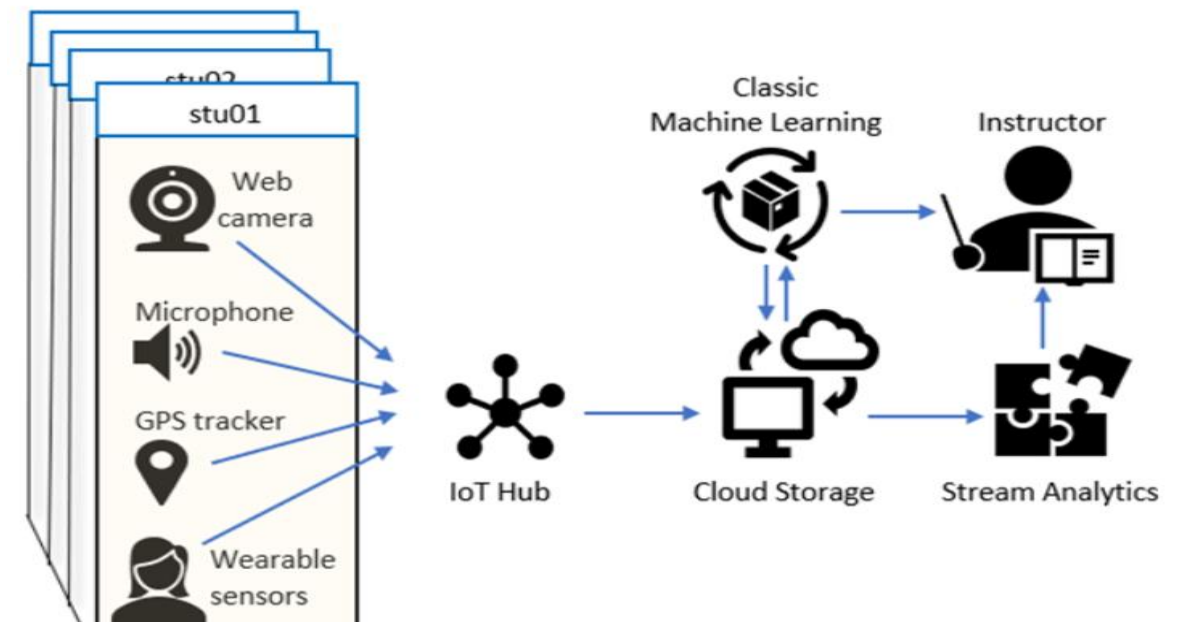
**Project Design Phase-I**  
**Solution Architecture**

Date	26 October 2022
Team ID	PNT2022TMID52101
Project Name	News Tracker Application
Maximum Marks	4 Marks

**Solution Architecture:**

The proposed IoT framework (Figure 1) manages educational process during remote learning in an electronic environment. It administers both teaching (during lectures, seminars and laboratory classes), and examination processes. The input data are provided by a set of IoT sensors (web camera, microphone, wearable devices) for each student. The system registers and collects realtime streaming data. Data transmission from sensor to receiver like computer or smartphone is realized through wire or wireless technology (Bluetooth, Zigbee, Cognitive Radio Network or other). IoT hub connects the students' devices with task-specific software for data storage and processing in Cloud Storage. Collected data are analyzed in real-time by using Stream Analytics and Machine Learning (ML) algorithms in the Cloud. The lecturer receives the results on his dashboard and reacts promptly, changing his pedagogical approach (for teaching or examination).

**Example - Solution Architecture Diagram:**



*Figure 1. IoT framework for managing  
the educational process in distance learning*