DECLARATION

We hereby declare that the Capstone Project Phase - 2 entitled **"Smart Classroom Environment"** has been carried out by us under the guidance of Dr. Annapurna D., Professor,CSE and submitted in partial fulfilment of the course requirements for the award of degree of **Bachelor of Technology** in **Computer Science and Engineering** of **PES University, Bengaluru** during the academic semester June – Nov. 2021. The matter embodied in this report has not been submitted to any other university or institution for the award of any degree.

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ABSTRACT

For years, universities have been using traditional methods as they bring about a sense of familiarity and comfort. However, the key to increase the productivity and enhance the learning experience lies in the modernization of our college campuses. Our work focuses on two of the most pressing issues - attendance and unsolicited energy consumption. Our goal was to overhaul the manual system, without compromising its integrity. A portable RFID fingerprint scanner that must be activated by the professor, thereby making our system failproof.

The data generated is stored in a cloud server and is used to draw behavioural patterns. We are accustomed to leaving our fans and lights unattended, which poses a serious environmental threat. Our solution is to a build a smart eco-system to detect the presence of a person, and automatically switching on the necessary appliances. This in combination with machine learning algorithms can adjust the speed of fans and brightness of lights based on external factors.

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