



## **FINAL YEAR PROJECT REPORT**

# **COTTON DUST MONITORING & ANALYSIS SYSTEM**

**In fulfillment of the requirement  
For degree of  
BEE (Electrical Engineering)**

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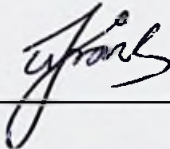
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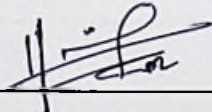
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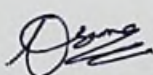
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## COTTON DUST MONITORING AND ANALYSIS SYSTEM

### ABSTRACT

In the textile industry, the cause of pollution which is found in its environment is a combination of gaseous and vapor (known as aerosols) contaminants. Aerosols are responsible for creating dust pollution, a type of occupational hazard in the textile sector. These include organic and vegetable dust, other chemical dust, etc. One of the most common organic dust found in the textile industry is cotton dust. This kind of occupational hazard is found in the departments (spinning, weaving, carding, etc.) where cotton gets processed and manufactured. This dust is a major concern as it is severe for human health, headed by symptoms of irritability of the airways, coughing, chronic inflammation, a few chronic reactions, etc leading to pulmonary diseases. The main goal of this project is to determine firstly the dust concentration by detecting it, secondly analyze the size of particles (ranging from 0 to above 500 microns), thirdly then generate alarms by warning the workers, and lastly, to update a register log timely. A device is designed in a manner accordingly by following the objectives defining its perfect parameters (dust, temperature & humidity), and displaying its results. It would take input through different sensors and output by displaying it on any monitor. Finally, this project would be able to conclude the cotton dust exposure levels making it available for the workers, developing a suitable environment to increase work productivity. It would be able to save lives before making them any worse by warning the hazards.

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