



**FINAL YEAR PROJECT REPORT**

**IMPACT ESTIMATION OF SMOG ON CERAMIC & POLYMER  
INSULATOR BY DEVELOPING ARTIFICIAL CHAMBER**

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

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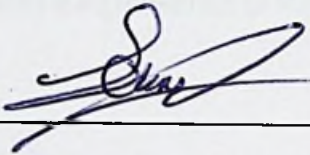
**BAHRIA UNIVERSITY (KARACHI CAMPUS)**

**2018-2022**

**DECLARATION**

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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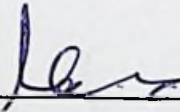


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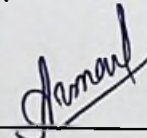


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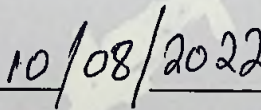


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**IMPACT ESTIMATION OF SMOG ON  
POLYMER & CERAMIC  
INSULATOR IN AN ARTIFICIAL CHAMBER**

**ABSTRACT**

This Final Year Project aims to check what impact SMOG has on Polymer and ceramic Insulator thus leading to contamination and Flashover issues and causing power failures. In past, experimental chambers have been designed to implicate aging tests on Polymer and ceramic. The Artificial chamber we have created will have 5 different types of artificial environments such as Raining, Temperature (Hot and Cold), Fog, SMOG, and Dust.

The first step will be developing the artificial chamber and then calibrating 5 different environmental settings, Once done Testing will begin on Polymer. This part consists of taking readings for all of the different environments e.g., Rain, Temperature (Hot and Cold), Dust, SMOG, and Fog by using environmental data for the past 5 years of Pakistan for better and more accurate results. The Testing will let us know the different effects of the environment on Polymer and Ceramic insulators. After testing we will compare both Polymer and Ceramic insulators and check which insulator was impacted by the environmental stress more thus letting us know which insulator is best suited for the outdoor environments.



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