**DECLARATION**

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This is to certify that the thesis work entitled "(Name of Thesis Title)" has been carried out by (Name of the Student) under the supervision of (Name of the Supervisor) in the Department of Biomedical Engineering, Khulna University of Engineering & Technology, Khulna, Bangladesh. The above thesis work or any part of this work has not been submitted anywhere for the award of any degree.

The above declarations are true. Understanding these, this work has been submitted for the evaluation of an undergraduate thesis.

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**ABSTRACT**

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**List of Abbreviations & Symbols**

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|  |  |
| --- | --- |
| wt % | Weight Percent |
| °C | Degree Celsius |
| MJ/kg | Mega joule per Kilogram |
| Kg/m3 | Kilogram per cubic meter |
| KgOE | Kilogram of Oil Equivalent |
| GCV | Gross Calorific value |
| SBR | Styrene Butadiene Rubber |
| PVC | Poly Vinyl Choloride |
| PET | Poly Ethelene Terapthalate |
| PS | Poly Styrene |
| EPT | Ethylene Propylene Terpolymer |
| IIR | Isobutylene Iso-prene Rubber |
| UV | Ultraviolet |
| NR | Natural Rubber |
| EPA | European Pollution Authority |
| MJ | Mega Joule |
| FCC | Fluid Catalytic Craking |
| TGA | Thermo Gravimetric Analysis |
| KW | Kilowatt |
| N2 | Nitrogen Gas |
| O-H | Hydroxyl stretching |
| N-H | Amines |
| C-H | Carbon Hydrogen (Alkanes group) |
| C=C | Carbon Hydrogen double bonding |
| C-O | Carbonyl Stretching |
| O-H | Alcohol, Phenol group |
| C≡C | Carbon Hydrogen Triple Bonding (Alkynes) |

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Dedicated to XYX