

## LIST OF SYMBOLS AND ABBREVIATIONS

ANFIS	-	Adaptive Neuro-Fuzzy Inference System
ASTM	-	American Society for Testing and Materials
ANN	-	Artificial Neural Network
BSFC	-	Break Specific Fuel Consumption
CaCO <sub>3</sub>	-	Calcium Carbonate
Ca(OH) <sub>2</sub>	-	Calcium Hydroxide
CaO	-	Calcium Oxide
CO	-	Carbon Monoxide
COOH	-	Carboxyl
CEA	-	Central Electricity Authority
CWET	-	Centre for Wind Energy Technology
CN	-	Cetane Number
CEN	-	Commission for European Normalization
CRDI	-	Common Rail Direct Injection
CNG	-	Compressed Natural Gas
CI	-	Compression Ignition
CII	-	Confederation of Indian Industry
EREC	-	Energy Efficiency and Renewable Energy Clearinghouse
EGR	-	Exhaust Gas Recirculation
FAAE	-	Fatty Acid Alkyl Ester
FAEE	-	Fatty Acid Ethyl Ester
FAME	-	Fatty Acid Methyl Ester
FY	-	Financial Year
F-T	-	Fischer-Tropsch
FFA	-	Free Fatty Acid
FES	-	Fuzzy Expert System

FIS	-	Fuzzy Inference System
GW	-	Giga Watt
GWh	-	Giga Watthour
HPLC	-	High Performance Liquid Chromatography
HC	-	Hydro Carbons
IC	-	Internal Combustion
IEA	-	International Energy Agency
kWh	-	Kilo Watthour
kg	-	Kilogram
LabVIEW	-	Laboratory Virtual Instrument Engineering Workbench
LPG	-	Liquefied Petroleum Gas
MATLAB	-	Matrix Laboratory
MSE	-	Mean Square Error
MW	-	Mega Watt
MDG	-	Millennium Development Goals
mg	-	milligram
mm	-	millimeter
MT	-	Million Tonnes
MTOE	-	Million Tons of Oil Equivalent
MNRE	-	Ministry of New Renewable Energy
MLP	-	Multi Layer Perceptron
NEP	-	National Electricity Policy
NDIR	-	Non Dispersive Infra Red
NSFA	-	Non-Saturated Fatty Acids
OECD	-	Organization for Economic Cooperation and Development
NO <sub>x</sub>	-	Oxides of Nitrogen
PM	-	Particulate Matter
ppm	-	parts per million

PV	-	Photo Voltaic
PPME	-	Pongamia Pinnata Methyl Ester
KOH	-	Potassium Hydroxide
REI	-	Renewable Energy India
SFA	-	Saturated Fatty Acids
NaOH	-	Sodium Hydroxide
SPV	-	Solar Photo Voltaic
SERC	-	State Electricity Regulatory Commission
TWh	-	Tera Watthour
T&D	-	Transmission & Distribution
UHC	-	Unburnt HydroCarbons
WCO	-	Waste Cooking Oil
WEC	-	World Energy Council