

Nomenclature

Symbols

| | | |
|-----------|--|-------------|
| A | Area | m^2 |
| A_e | Output value as obtained from experimental data | - |
| A_p | Output value predicted by the neural network model | - |
| B_x | Bias error | - |
| C | Constant | - |
| C_d | Coefficient of orifice | - |
| CV | Caloric value | kJ/kg |
| D | Engine cylinder diameter | m |
| Exp. | Experimental | - |
| F/A | Fuel / air ratio | - |
| g | Acceleration due to gravity | m/s^2 |
| L | Engine cylinder stroke | m |
| m_a | Air mass flow rate | kg/s |
| m_f | Diesel fuel mass flow rate | kg/s |
| m_{H_2} | Hydrogen mass flow rate | kg/s |
| N | Speed | rpm |
| P | Pressure | N/m^2 |
| P_x | Precision error | - |
| R | Evaluation factor for average accuracy | - |
| Ra | Average residual | - |
| RSS | Residual of sum squares | - |
| T | Temperature | $^{\circ}C$ |
| Q | Air flow rate | m^3/s |
| X | Variable | - |
| U_x | Uncertainty | - |
| W | Brake force | N |

Greek

| | | |
|----------|--|----------|
| σ | Evaluation factor for scatter accuracy | - |
| ρ | Density | Kg/m^3 |
| ϕ | Equivalence ratio | - |
| η | Efficiency | % |

Subscripts

| | |
|--------|------------------|
| A | Air |
| E | Experimental |
| exh. | Exhaust |
| F | Diesel fuel |
| P | Predicted |
| rms | Root mean square |
| S | Swept |
| stoch. | Stoichiometric |
| X | Variable |
| W | Water |