LIST OF ABBREVIATIONS AND SYMBOLS

A - Area of the shell
ANN - Artificial Neural Network
BPN - Back Propagation Network
BC - Boundary Conditions
B-REP - Boundary Representation
$Y_c$ - Computed Model Parameters
DOF - Degrees of Freedom
EMM - Error Matrix Method
EMA - Experimental Modal Analysis
FFT - Fast Fourier Transforms
FEA - Finite Element Analysis
FEM - Finite Element Methods
FEMUP - Finite Element Model Updating Problems
FGM - Functionally Graded Materials
FBM - Force Balance Method
$S^1, S^2, S^3$ - Location on Space
$f_i$ - Lowest Natural Frequency
$Y_m$ - Measured Model Parameters
$M_A, M_B, M_C$ - Models
MLP - Multi Layer Perception
NN - Neural Network
OA - Orthogonal Array
$\alpha, \beta, \lambda$ - Parameters
PDE - Partial Differential Equation
$X_p$ - Predicted Structural Parameters
PNN - Probabilistic Neural Network
$R_1, R_2, R_3$ - Response Results
$S$ - Sensitivity Index
$g$ - Shell Thickness
\[ \Delta f_i \quad - \quad \text{Variation of Natural Frequency } f_i \text{ due to the Variation of Shell thickness} \]

\[ \Delta g \quad - \quad \text{Variation of Shell thickness} \]

\[ V \quad - \quad \text{Volume of the Shell} \]