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Glossary of Symbols :

Following symbols have been used in this thesis :

E	=	Young's modulus.
ν	=	Poisson's ratio.
ω	=	Deflection normal to the middle plane of the plate.
h	=	Thickness of the plate.
G, Gc	=	Shear module.
ρ	=	Mass density.
λ	=	Material constant.
A o	=	Amplitude of oscillations.
D	=	$\dfrac{Eh^3}{12(1-\nu^2)}$ = Flexural rigidity.
F i	=	Body force components.
T i	=	Surface force components.
u, v, ω	=	Displacements in x, y and z - directions respectively.
τ (t)	=	Time dependent function.
T	=	Kinetic energy.
$W(\sigma_{ij})$	=	Strain-energy.

M_x, M_y, M_{xy}	=	Stress couples.
N_x, N_y, N_{xy}	=	In-plane stress resultants.
Q_x, Q_y	=	Transverse shear resultants.
α, β	=	Rotational displacements in x and y -directions respectively.
$\epsilon_{ij}, \sigma_{ij}$	=	Strains and stresses respectively.
C_p	=	$\left[\dfrac{E}{\rho(1-\nu^2)}\right]^{1/2}$ = speed of wave propagation along the surface of the plate.
$\bar{\alpha}$	=	coupling parameter.
$\bar{\beta}$	=	Dimensionless amplitude.
k	=	Tracing constant.
T^*, T	=	Non-linear and linear time period of oscillation.
q_0	=	Load function.
a	=	Dimension of a plate.
a, b	=	Semi-major and semi-minor axes of the elliptic plate.