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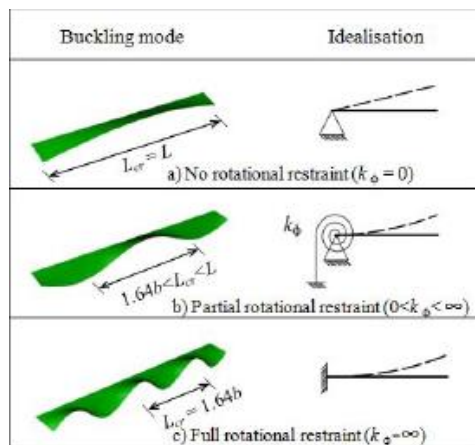


Research Interests

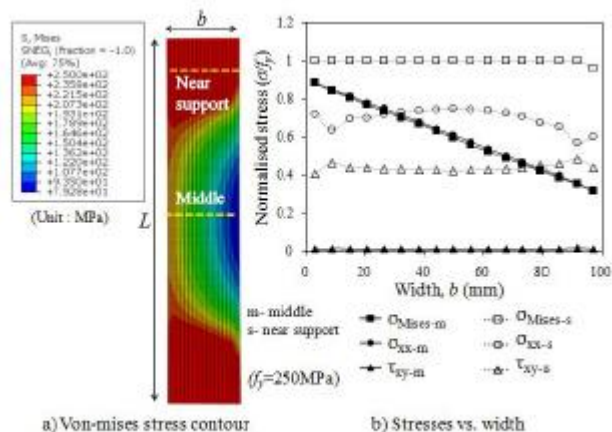
- Buckling and post-buckling behaviour of steel structure
- Concrete filled steel tubular (CFST) members

Brief Summary of Research

We are working towards developing the design guidelines based on the direct strength method (DSM) for cold-formed steel (CFS) structural members considering possible interaction of buckling modes. The study towards understanding the behaviour of CFST members are also under progress.



Elastic buckling of unstiffened plates



Stress distribution across plate width at ultimate step for plate with $\lambda = 1.50$

Projects

- Kumar, M.V.A “Behaviour and design of CFS channel compression members with partial lip stiffened flanges”, DST Core Research Grant (Amount: 33.2 lakh)
- Karthik M.M and Kumar M.V.A “ Evaluation of strength and Stability of proposed elephant protection fence” Vigilance and Forest Intelligence, Forest Head Quarters, Thiruvananthapuram (0.85 lakh)

Recent Publications

- Kumar, M.V.A. and Kalyanaraman, V. (2018). "Interaction of local, distortional and overall buckling in CFS lipped channel compression members." *J. Struct. Eng.*, ASCE