ME 260: Structural Optimization: Size, Shape, and Topology Assigned: Sep. 17, 2024 Programming Assignment 1 Due: Oct. 1, 2024

Truss optimization (8 points)

Following the 2D truss optimization for stiffness, you are now asked to develop Matlab code for four other criteria. You should do this in groups as indicated below. Separate sessions will be arranged with each group to discuss the details.

Strong group	<i>Stable</i> group	Quick group	<i>Flexible</i> group
Abhimanyu, Gulshan, Harika, Lokesh, and Monalisha	Govardhan, Indra, Jayhind, Mouli, Raghu, and Saiteja	Anshuman, Chandra Prakash, Krishna, Pramay, and Shubham	Arya, Chandra Mohan, Lubaid, Srivardhan, and Viswanath

Whatever method you use to solve the problem, please make it general so that any loading and boundary conditions can be handled.

- The efficacy of your code should be demonstrated with at least two numerical examples. And the code should run with any data given.
- Include figures and other details of the examples when you submit in paper form. Please also submit your code in one zip file by email.
- Please name the zip file with your group name so that it can be easily traced.