ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Department of Mechanical Engineering

ME522 Advanced FEA

Homework Assignment P-01

Structural Analysis with Ansys

Having completed the structural tutorial, do the following:

- 1. Change the element type to plane 42 (4 node quad)
- 2. Refine the mesh until you are comfortable that the stress gradients are well-resolved
- 3. Generate plots nodal solutions for each applicable entry in DOF Solution, Stress, Strain-total, and Energy. For each plot, capture the image, title it clearly, explain what is physically going on, what this type of plot is good for, and what this type of plot is NOT good for.

Due: Post results on-line and inform instructor of location by class time Thursday.

Note that part 3 was divided up in class – if you missed class, you get to report on the Stress results.

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