



REQUIREMENTS FOR ASSIGNMENT REPORTS

Reports for all Assignments should be neat and prepared by hand. Please, be aware that when you deliver your project I will check the results in programmes which were used for solution, so please bring proper files (on pendrive or on your own laptop) and be able to show me your computations.

Report for Assignment 3 (heat analysis) should contain:

1. Drawing presenting the coarse discretization (numbering of nodes, elements, table of topology).
2. Sketch of the temperature distribution for the analysed specimen obtained for the coarse mesh. Please, draw the vectors of heat flux in each finite element.
3. Comparison of nodal temperatures for the coarse mesh obtained using MATLAB and ABAQUS. Write a comment about them (Are the results the same or not? Why?).
4. Description of the medium and fine mesh implemented in ABAQUS (number of elements, number of nodes, type of elements).
5. Analysis of convergence: choose one point inside the specimen and check temperature at this point for the coarse, medium and fine mesh (results from ABAQUS). Draw a diagram: value of temperature (vertical axis) vs number of degrees of freedom (horizontal axis). You can consider log-log scale. Additionally, for this chosen point calculate by hand a value of temperature using nodal values of temperature obtained for the coarse mesh. Compare it with the result taken from ABAQUS.