Finite Element Analysis II
0540.6411
Semester B, 2019–20

url: http://www.eng.tau.ac.il/~harari/Courses/Methods2/

Class Tuesday 15–18, Wolfson 238

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Topics
  Review of linear, static finite element analysis
  Dynamics:
    Formulation of linear dynamic problems
    Parabolic, hyperbolic and elliptic eigenvalue problems
    Time-stepping algorithms for parabolic and for hyperbolic problems
    Algorithms for elliptic eigenvalue problems
  Nonlinear analysis:
    Elementary nonlinear problems
    Solution of nonlinear algebraic equations
    Finite deformation (hyper-)elasticity
    Finite deformation elasto-dynamics
    Iterative strategies for large-scale systems

Book

References
  Dennis & Schnabel, Numerical Methods for Unconstrained Optimization... SIAM, 1996.

Grading
  Homework problems (to final) 0%
  Computer assignments (required) 0%
  Project (50%)
  Final 100% (05.07.20)