

Theory of Vibrations

0542.4220

Semester B 2016-17

url: <http://www.eng.tau.ac.il/~harari/Courses/Vibrations/>

Classes

Monday, 9-12 Wolfson 120
Wednesday, 9-10 Wolfson 120

Instructor Isaac Harari

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Assistant Yoav Kessler

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Topics

Single degree-of-freedom (sdof) systems - free vibrations, damping
Periodic forced vibrations of sdof systems, resonance
General forced vibrations of sdof systems, shock spectrum
Multi-dof systems - modal decomposition, natural frequencies & modes,
orthogonality
Continuous systems

Book

Meirovitch, *Elements of Vibration Analysis*, 2nd Ed., McGraw Hill, 1986.

References

Den Hartog, *Mechanical Vibrations*, 4th Ed., McGraw Hill, 1956.

Harris, *Shock and Vibration Handbook*, 3rd Ed., McGraw Hill, 1988.

Grading

Homework 20%
(Midterm 15%, 5/5, 10:00, Wolfson 120)
Final 80% (09/07/2015, 9:00)