

Indian Institute of Science

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ME 279 (JAN) 3:0 Radiative Transport

Instructor(s): Dr. Navaneetha Krishnan Ravichandran,

Course description: Blackbody radiation, emmissivity, Kirchoff's law, gray surface, view factor, thermal radiative transport in enclosures, radiative transport in absorbing, emitting and scattering media, electromagnetic theory for thermal radiation, radiative properties of gases, equation of radiative transport and their solutions, classical and quantum theory of the radiative properties of materials, fluctuational electrodynamics and near-field thermal radiation.

Prerequisites:

Resources: Radiative Heat Transfer by Michael F. Modest, Academic Press

Outcomes:

Additional information:

Course website: