NPTEL Video Course - Aerospace Engineering - NOC:Gasdynamics: Fundamentals and Applications

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Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 30 - Oblique Shock and Expansion waves - Numerical
Lecture 31 - Varying Area Duct Flows - I
Lecture 32 - Varying Area Duct Flows - II
Lecture 33 - Converging Nozzle and Chocking
Lecture 34 - Converging and Diverging Nozzle Operation
Lecture 35 - Varying area flow- Numericals - I
Lecture 36 - Diffusers Intakes/Inlets
Lecture 37 - Experimental facilities
Lecture 38 - Varying area flow - Numericals - II
Lecture 39 - Varying area flow - Numericals - III
Lecture 40 - Varying area flow - Numericals - IV
Lecture 41 - 1D flow with friction - Fanno flow - I
Lecture 42 - 1D flow with friction - Fanno flow - II
Lecture 43 - 1D flow with friction - Fanno flow - III
Lecture 44 - 1D flow with friction - Fanno flow - Numericals
Lecture 45 - 1D Flows with Heat Addition: Rayleigh Flows - I
Lecture 46 - 1D Flows with Heat Addition: Rayleigh Flows - II
Lecture 47 - 1D Flows with Heat Addition: Rayleigh Flows - Numericals
Lecture 48 - Generalized 1D Flows
Lecture 49 - Small perturbation theory - I
Lecture 50 - Small perturbation theory - II
Lecture 51 - Small perturbation theory - III
Lecture 52 - Method of Characteristics: 2D Supersonic Flow - I
Lecture 53 - Method of Characteristics: 2D Supersonic Flow - II
Lecture 54 - Method of Characteristics: Applications
Lecture 55 - Hypersonic Flows - I
Lecture 56 - Hypersonic Flows - II
Lecture 57 - Edney Shock Interaction
Lecture 58 - Shock Boundary Layer Interaction - I
Lecture 59 - Shock Boundary Layer Interaction - II
Lecture 60 - Concluding Remarks