NPTEL : Introduction to Aerospace Propulsion (Aerospace Engineering)

Co-ordinators : Prof. Bhaskar Roy, Prof. A M Pradeep

NPTEL : Jet Aircraft Propulsion (Aerospace Engineering)

Co-ordinators : Prof. A M Pradeep, Prof. Bhaskar Roy

NPTEL : Turbomachinery Aerodynamics (Aerospace Engineering)

Co-ordinators : Prof. Bhaskar Roy, Prof. A M Pradeep

NPTEL : NOC:Introduction to Aerospace Engineering (Aerospace Engineering)

Co-ordinators : Prof. Rajkumar Pant

NPTEL : NOC:Introduction to Aircraft Design (Aerospace Engineering)

Co-ordinators : Prof. Rajkumar Pant

NPTEL : NOC:Introduction to Launch Vehicle Analysis and Design (Aerospace Engineering)

Co-ordinators : Prof. Ashok Joshi

NPTEL : NOC:Lighter than Air Systems (Aerospace Engineering)

Co-ordinators : Prof. Rajkumar Pant

NPTEL : NOC:Elements of Mechanical Vibration (Aerospace Engineering)

Co-ordinators : Prof. Ashish K Darpe

NPTEL : Aero elasticity (Aerospace Engineering)

Co-ordinators : Prof. C. Venkatesan

NPTEL : Foundation of Scientific Computing (Aerospace Engineering)

Co-ordinators : Prof. Tapan K. Sengupta

NPTEL : Instability and Transition of Fluid Flows (Aerospace Engineering)

Co-ordinators : Prof. Tapan K. Sengupta

NPTEL : Introduction to Helicopter Aerodynamics and Dynamics (Aerospace Engineering)

Co-ordinators : Prof. A.R. Manjunath, Prof. C. Venkatesan

NPTEL : Introduction to Propulsion (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : Jet and Rocket Propulsion (Aerospace Engineering)

Co-ordinators : Dr. A. Kushari

NPTEL : NOC:Introduction to Airplane Performance (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh, Dr. Deepu Philip

NPTEL : NOC:Stability and control of aircraft (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh

NPTEL : NOC:Engineering Thermodynamics (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : NOC:Aircraft Dynamic Stability and Design Stability (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh

NPTEL : NOC:Introduction to Ancient Indian Technology (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : NOC:Introduction to Experiments in Flight (Aerospace Engineering)

Co-ordinators : Prof. Mahendra Verma, Dr. A.K. Ghosh

NPTEL : NOC:Engineering Thermodynamics (2017) (Aerospace Engineering)

Co-ordinators : Dr. Jayant K. Singh

NPTEL : NOC:Aircraft Design (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh

NPTEL : NOC:Fundamentals Of Combustion-I (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : NOC:Aircraft Maintenance (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh

NPTEL : NOC:Fundamentals of Combustion - Part 2 (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : NOC:Design of Fixed Wing Unmanned Aerial Vehicles (Aerospace Engineering)

Co-ordinators : Prof. Saderla Subrahmanyam

NPTEL : NOC:Introduction to Finite Volume Methods-I (Aerospace Engineering)

Co-ordinators : Prof. Ashoke De

NPTEL : NOC:Advance Aircraft Maintenance (Aerospace Engineering)

Co-ordinators : Dr. A.K. Ghosh, Mr. V. Mathur

NPTEL : NOC:Introduction to Finite Volume Methods-II (Aerospace Engineering)

Co-ordinators : Prof. Ashoke De

NPTEL : NOC:Introduction to Rocket Propulsion (Aerospace Engineering)

Co-ordinators : Dr. D.P. Mishra

NPTEL : NOC:UAV Design - Part II (Aerospace Engineering)

Co-ordinators : Prof. Saderla Subrahmanyam

NPTEL : NOC:Introduction to Airbreathing Propulsion (Aerospace Engineering)

Co-ordinators : Prof. Ashoke De

NPTEL : NOC:Computational Science in Engineering (Aerospace Engineering)

Co-ordinators : Prof. Ashoke De

Method, Gauss-Seidel

Lecture 32 - Extrapolation Method, Eigenvalue Problem, Jacobi Method, Householder's Method for Symmetric Matrices, Power Method, Inverse Power Method

Lecture 33 - Interpolation: Taylor's Series, Lagrange and Newton Interpolation, Iterated Interpolation, Hermite Interpolation, Finite Difference Operations

Lecture 34 - Piecewise and Spline Interpolation, Bivariate Interpolation, Least Square Approximation, Uniform Polynomial Approximation

Lecture 35 - Numerical Differentiation and Intergration, Methods Based on Finite Differences, Methods based on Undetermined Coefficients, Extrapolation Methods, Partial Differentiation

Lecture 36 - Numerical Integration: Newton-Cotes Method, Gaussian Integration Methods, Lobatto Integration Method, Radau Integration Method, Composite Integration Methods

Lecture 37 - Double Integration: Trapezoidal Rule, Simpson's Rule, Solution of ODEs: Difference Equation, Single Step Methods, Explicit Methods

Lecture 38 - Runge-Kutta Methods, Euler-Cauchy Method, Multi-step Methods, Predictor-Corrector Methods

Lecture 39 - System of Differential Equations, Stability Analysis, Solution of Boundary Value Problem: Shooting Method

Lecture 40 - Numerical Approach to Solution of PDEs: Heat Conduction Equation, Convergence and Stability

NPTEL : NOC:Introduction to Aircraft Control System (Aerospace Engineering)

Co-ordinators : Prof. Dipak Kumar Gir

NPTEL : NOC:Applied Computational Fluid Dynamics (Aerospace Engineering)

Co-ordinators : Prof. Rajesh Ranjan

NPTEL : High Speed Aero Dynamics (Aerospace Engineering)

Co-ordinators : Dr. K.P. Sinhamahapatra

NPTEL : Space Flight Mechanics (Aerospace Engineering)

Co-ordinators : Dr. Manoranjan Sinha

NPTEL : Introduction to Aerodynamics (Aerospace Engineering)

Co-ordinators : Dr. K.P. Sinhamahapatra

NPTEL : NOC:Satellite Attitude Dynamics and Control (Aerospace Engineering)

Co-ordinators : Dr. Manoranjan Sinha

NPTEL : NOC:Vibration and Structural Dynamics (Aerospace Engineering)

Co-ordinators : Prof. Mira Mitra

NPTEL : NOC:Space Flight Mechanics (Aerospace Engineering)

Co-ordinators : Dr. Manoranjan Sinha

NPTEL : NOC:Aircraft Structures - I (Aerospace Engineering)

Co-ordinators : Dr. Anup Ghosh

NPTEL : NOC:Introduction to CFD (Aerospace Engineering)

Co-ordinators : Prof. Arnab Roy

Lecture 65 - Structured and Unstructured Grid Generation (Continued...)

NPTEL : NOC:Fundamentals of Theoretical and Experimental Aerodynamics (Aerospace Engineering)

Co-ordinators : Prof. Arnab Roy

NPTEL : NOC:Aerodynamic Design of Axial Flow Compressors and Fans (Aerospace Engineering)

Co-ordinators : Prof. Chetankumar Sureshbhai Mistry

NPTEL : NOC:Smart Structures (Aerospace Engineering)

Co-ordinators : Prof. Mohammed Rabius Sunny

NPTEL : NOC:Aeroengine Gas Turbine Cycles (Aerospace Engineering)

Co-ordinators : Prof. Chetankumar Sureshbhai Mistry

NPTEL : NOC:Combustion of Solid Fuels and Propellants (Aerospace Engineering)

Co-ordinators : Prof. Srinibas Karmakar

NPTEL : NOC:Aerospace Structural Analysis (Aerospace Engineering)

Co-ordinators : Prof. Mira Mitra

NPTEL : NOC:Fundamentals of Supersonic and Hypersonic Flow (Aerospace Engineering)

Co-ordinators : Prof. Arnab Roy

NPTEL : Acoustic Instabilities in Aerospace Propulsion (Aerospace Engineering)

Co-ordinators : Prof. R.I. Sujith

NPTEL : Aerospace Propulsion (Aerospace Engineering)

Co-ordinators : Dr. P.A. Ramakrishna

NPTEL : Combustion (Aerospace Engineering)

Co-ordinators : Prof. S.R. Chakravarthy

NPTEL : Flight Dynamics II (Stability) (Aerospace Engineering)

Co-ordinators : Dr. Nandan Kumar Sinha

NPTEL : Gas Dynamics (Aerospace Engineering)

Co-ordinators : Dr. T.M. Muruganandam

NPTEL : Introduction to CFD (Aerospace Engineering)

Co-ordinators : Prof. M. Ramakrishna

NPTEL : NOC:Rocket Propulsion (Aerospace Engineering)

Co-ordinators : Prof. K. Ramamurthi, Prof. S. Varunkumar

NPTEL : Advanced Control System Design for Aerospace Vehicles (Aerospace Engineering)

Co-ordinators : Dr. Radhakant Padhi

NPTEL : Optimal Control, Guidance and Estimation (Aerospace Engineering)

Co-ordinators : Dr. Radhakant Padhi

NPTEL : NOC:Combustion in Air Breathing Aero Engines (Aerospace Engineering)

Co-ordinators : Prof. Swetaprovo Chaudhuri

NPTEL : NOC:Gasdynamics: Fundamentals and Applications (Aerospace Engineering)

Co-ordinators : Prof. Srisha Rao M V