

**NPTEL**A Project funded by
MHRD, Govt. of India

ONLINE COURSES | 20 hours

10hrs, 20hrs & 30hrs courses open for enrollment
<https://onlinecourses.nptel.ac.in>

01 Aircraft Dynamics Stability & Design of Stability Augmentation System Prof. A. K. Choh Aerospace Engineering IIT Kanpur	11 Programming, Data Structures and Algorithms in Python Prof. Madhavan Mukund Computer Science CMI	21 An Introduction to Information Theory Prof. Adrish Banerjee Electrical Engineering IIT Kanpur	31 Soft Skill Development Prof. Priyadarshi Patraik, Prof. V. N. Giri & Prof. D. Saur Humanities and Social Science IIT Kharagpur	41 Engineering Economic Analysis Prof. Pradeep K. Jha Mechanical Engineering IIT Roorkee	51 Introduction to crystal elasticity and crystal plasticity Prof. Swarnaprabha Metallurgical Engineering & Materials Sciences IIT Guwahati
02 Interactomics: Protein Arrays & Label-free Biosensors Prof. Sanjeeva Srivastava Biosciences and Bio-Engineering IIT Bombay	12 Privacy and Security in Online Social Media Prof. Ponnurangam Kumaraguru Computer Science IITD	22 Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications Prof. Aditya Jagannathan Electrical Engineering IIT Kanpur	32 Symbolic Logic Prof. Chandra Chakraborti Humanities and Social Science IIT Kharagpur	42 Fluid Dynamics and Turbomachines Prof. Dhanan Chatterjee & Prof. Shamit Bakshi Mechanical Engineering IIT Madras	52 Fundamentals of Material Processing - I Prof. Shashank Shekhar Metallurgical Engineering & Materials Sciences IIT Kanpur
03 Introduction to proteomics Prof. Sanjeeva Srivastava Biosciences and Bio-Engineering IIT Bombay	13 Theory of Computation Prof. Raghunath Tewari Computer Science IIT Kanpur	23 Basic Electrical Circuits Prof. Aniruddhan S Electrical Engineering IIT Madras	33 Introduction on Intellectual Property to Engineers and Technologists Prof. Tapas Kumar Bandyopadhyay Humanities and Social Science IIT Kharagpur	43 Advanced Machining Processes Prof. Manas Das Mechanical Engineering IIT Guwahati	53 Heat Treatment and Surface Hardening - I Prof. Kalish Mandal & Prof. Sandeep Sangal Metallurgical Engineering & Materials Sciences IIT Kanpur
04 Soft Nano Technology Prof. Rabirata Mukherjee Chemical Engineering IIT Kharagpur	14 Modern Algebra Prof. Manindra Agrawal Computer Science IIT Kanpur	24 Satellite Communication Systems Prof. Kalyankumar Bandyopadhyay Electrical Engineering IIT Kharagpur	34 Globalization and Culture Prof. Anjali Gera Roy Humanities and Social Science IIT Kharagpur	44 Nature and Property of Materials Prof. Bishakh Bhattacharya Mechanical Engineering IIT Kanpur	54 Introduction to Research Prof. Prathap Handoss Multidisciplinary IIT Madras
05 Pericyclic Reactions and Organic Photochemistry Prof. Sankaranarayanan Chemistry IIT Madras	15 Programming in C++ Prof. Partha Pratim Das Computer Science IIT Kharagpur	25 Fundamentals of MIMO Wireless Communication Prof. Suva Sekhar Das Electrical Engineering IIT Kharagpur	35 Marketing Management - II Prof. Jayanta Chatterjee & Prof. Shashi Shekhar Vohra Management IIT Kanpur	45 Manufacturing Process Technology - II Prof. Shantanu Bhattacharya Mechanical Engineering IIT Kanpur	55 Quantum Information and Computing Prof. Dipan Choudhury Physics IIT Bombay
06 Principles and Applications of NMR Spectroscopy Prof. Harudatta S. Atreya Chemistry Indian Institute of Science	16 Introduction to Machine Learning Prof. Sudeshna Sarkar Computer Science IIT Kharagpur	26 Discrete Time Signal Processing Prof. Arjit De Electrical Engineering IIT Kharagpur	36 Commodity Derivatives and Risk Management Prof. Prabina Rajib Management IIT Kharagpur	46 Fluid Machines Prof. Sankar Kumar Som Mechanical Engineering IIT Kharagpur	56 Introduction to Electromagnetic Theory Prof. Manoj Harbola Physics IIT Kanpur
07 Chemical Applications of Symmetry and Group Theory Prof. Manabendra Chandra Chemistry IIT Kharagpur	17 Object-Oriented Analysis and Design Prof. Partha Pratim Das Computer Science IIT Kharagpur	27 Stochastic Processes - I Prof. S. Dharmaraja Mathematics IIT Delhi	37 Introduction to data analytics Prof. Nandan Sudarshanam, Prof. Balaraman Ravindran Management IIT Madras	47 Variational Methods in Mechanics Prof. C. K. Ananthasuresh Mechanical Engineering Indian Institute of Science, Bangalore	57 Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation Prof. Sougata Karmakar Design IIT Guwahati
08 Project Planning and Control Prof. Kishay Varghese Civil Engineering IIT Madras	18 Design and analysis of algorithms Prof. Madhavan Mukund Computer Science CMI	28 Introduction to Psychology Prof. Braj Bhushan Humanities and Social Science IIT Kanpur	38 Basics of Finite Element Analysis - I Prof. Nachiketa Tiwari Mechanical Engineering IIT Kanpur	48 Fundamentals of X-ray diffraction and Transmission electron microscopy Prof. S. Sankaran Metallurgical Engineering & Materials Sciences IIT Madras	58 Health Research Fundamentals Prof. Sanjay Mehendale, Prof. Manoj V. Murhekar, Prof. R. Ramakrishnan, Prof. Tarun Bhattacharya, Prof. Prashant Kaur, Prof. P. Manickam, Prof. R. Ganeshkumar NEIGRI, Chennai
09 Algorithms for Big Data Prof. John Augustine Computer Science IIT Madras	19 Bayesian/ MMSE Estimation for Wireless Communications - MIMO/ OFDM Cellular & Sensor Networks Prof. Aditya Jagannathan Electrical Engineering IIT Kanpur	29 Folk and Minor Art in India Prof. Shatarupa Thakura Roy Humanities and Social Science IIT Kanpur	39 Basics of Finite Element Analysis - II Prof. Nachiketa Tiwari Mechanical Engineering IIT Kanpur	49 Theory and Practice of Non Destructive Testing Prof. Ranjit Bauri Metallurgical Engineering & Materials Sciences IIT Madras	
10 Introduction to Operating Systems Prof. Chester Rebeiro Computer Science IIT Madras	20 Digital Switching - I Prof. Y. N. Singh Electrical Engineering IIT Kanpur	30 Developing Soft Skills and Personality Prof. T. Ravichandran Humanities and Social Science IIT Kanpur	40 Refrigeration & air-conditioning Prof. Ravi Kumar Mechanical Engineering IIT Roorkee	50 Biomaterials for bone tissue engineering applications Prof. Bikramjit Basu Materials Research Center Indian Institute of Science, Bangalore	

Course Duration: 18th July 2016 - 9th September 2016**"Enrollment is FREE"**Exam Dates: 18th September 2016 & 25th September 2016