

**685 NPTEL VIDEO COURSES DETAIL (With Direct Access Link to 26,740 Video Lectures - Updated as on November 29, 2016)****Aerospace Engineering**

No.	Courses	Coordinators	Institute	Syllabus	PDF	MP3
1	<a href="#">Acoustic Instabilities in Aerospace Propulsion</a>	Prof. R.I. Sujith	IIT Madras	<a href="#">Syllabus</a>	Y	Y
2	<a href="#">Advanced Control System Design for Aerospace Vehicles</a>	Dr. Radhakant Padhi	IISc Bangalore	<a href="#">Syllabus</a>	Y	Y
3	<a href="#">Aero elasticity</a>	Prof. C. Venkatesan	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
4	<a href="#">Aerospace Propulsion</a>	Dr. P.A. Ramakrishna	IIT Madras	<a href="#">Syllabus</a>	N	Y
5	<a href="#">Combustion</a>	Prof. S.R. Chakravarthy	IIT Madras	<a href="#">Syllabus</a>	N	Y
6	<a href="#">Flight Dynamics II (Stability)</a>	Dr. Nandan Kumar Sinha	IIT Madras	<a href="#">Syllabus</a>	N	Y
7	<a href="#">Foundation of Scientific Computing</a>	Prof. Tapan K. Sengupta	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
8	<a href="#">Gas Dynamics</a>	Dr. T.M. Muruganandam	IIT Madras	<a href="#">Syllabus</a>	Y	Y
9	<a href="#">High Speed Aero Dynamics</a>	Dr. K.P. Sinhamahapatra	IIT Kharagpur	<a href="#">Syllabus</a>	Y	Y
10	<a href="#">Instability and Transition of Fluid Flows</a>	Prof. Tapan K. Sengupta	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
11	<a href="#">Introduction to Aerodynamics</a>	Dr. K.P. Sinhamahapatra	IIT Kharagpur	<a href="#">Syllabus</a>	N	Y
12	<a href="#">Introduction to Aerospace Propulsion</a>	Prof. Bhaskar Roy, Prof. A M Pradeep	IIT Bombay	<a href="#">Syllabus</a>	Y	Y
13	<a href="#">Introduction to CFD</a>	Prof. M. Ramakrishna	IIT Madras	<a href="#">Syllabus</a>	N	Y
14	<a href="#">Introduction to Helicopter Aerodynamics and Dynamics</a>	Prof. C. Venkatesan, Prof. A.R. Manjunath	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
15	<a href="#">Introduction to Propulsion</a>	Dr. D.P. Mishra	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
16	<a href="#">Jet Aircraft Propulsion</a>	Prof. Bhaskar Roy, Prof. A M Pradeep	IIT Bombay	<a href="#">Syllabus</a>	N	Y
17	<a href="#">Jet and Rocket Propulsion</a>	Dr. A. Kushari	IIT Kanpur	<a href="#">Syllabus</a>	Y	Y
18	<a href="#">NOC:Aircraft Dynamic Stability &amp; Design Stability Augmentation System</a>	Dr. A.K. Ghosh	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
19	<a href="#">NOC:Engineering Thermodynamics</a>	Dr. D.P. Mishra	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
20	<a href="#">NOC:Introduction to airplane performance</a>	Dr. A.K. Ghosh	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
21	<a href="#">NOC:Stability and control of aircraft</a>	Dr. A.K. Ghosh	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
22	<a href="#">Optimal Control, Guidance and Estimation</a>	Dr. Radhakant Padhi	IISc Bangalore	<a href="#">Syllabus</a>	Y	Y
23	<a href="#">Space Flight Mechanics</a>	Dr. Manoranjan Sinha	IIT Kharagpur	<a href="#">Syllabus</a>	Y	Y
24	<a href="#">Turbomachinery Aerodynamics</a>	Prof. Bhaskar Roy, Prof. A M Pradeep	IIT Bombay	<a href="#">Syllabus</a>	Y	Y

**Agriculture**

1	<a href="#">NOC:Basic Crop Production Practices (BCPP)</a>	Dr. Sharwan Kumar Shukla, Dr. Vinod Kumar, Prof. J. R. Yadav	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
2	<a href="#">NOC:GIS in Ag-Essentials and Applications (GIS)</a>	Dr. R. Nagarajan, Dr. Venkataraman Balaji	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
3	<a href="#">NOC:ICT Basics</a>	Prof. T.V. Prabhakar	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
4	<a href="#">NOC:Integrated Pest Management (IPM)</a>	Prof. B.V. Patil, Prof. M. Bheemanna, Prof. Prabhuraj A (Instructor Incharge)	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
5	<a href="#">NOC:Nutrition, Therapeutics and Health (NM)</a>	Dr. V. Vijaya Lakshmi (Instructor Incharge)	IIT Kanpur	<a href="#">Syllabus</a>	N	Y
6	<a href="#">NOC:Weather Forecast in Agriculture and Agro-advisory (WF)</a>	Dr. R. Nagarajan, Co Faculty, Dr. T.N. Balasubramanian (Rtd.), Instructor Incharge	IIT Kanpur	<a href="#">Syllabus</a>	N	Y

**Atmospheric Science**

1	<a href="#">Introduction to Atmospheric Science</a>	Prof. C. Balaji	IIT Madras	<a href="#">Syllabus</a>	N	Y
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2	Radiation Heat Transfer	Prof. J. Srinivasan	IISc Bangalore	Syllabus	Y	Y
3	The monsoon and its variability	Sulochana Gadgil	IISc Bangalore	Syllabus	N	Y
<b>Basic Courses (Semester 1 and 2)</b>						
1	Applied mechanics	Prof. Sanjeev Sanghi, Prof. R.K. Mittal	IIT Delhi	Syllabus	Y	Y
2	Basic Electronics and Lab	Prof. T.S. Natarajan	IIT Madras	Syllabus	Y	Y
3	Classical Physics	Prof. V. Balakrishnan	IIT Madras	Syllabus	Y	Y
4	Concept of Management and Evolution of Management thought	Prof. K.B. Akhilesh	IISc Bangalore	Syllabus	Y	Y
5	Engineering Chemistry I	Prof. K. Mangala Sunder	IIT Madras	Syllabus	Y	Y
6	Engineering Mechanics	Prof. Manoj K Harbola	IIT Kanpur	Syllabus	Y	Y
7	Engineering Physics I	Prof. Rajdeep Chatterjee, Prof. M. K. Srivastava, Prof. G.D. Verma, Prof. B. K. Patra	IIT Roorkee	Syllabus	N	Y
8	Engineering Physics II	Prof. S. Raychaudhuri, Prof. V. Ravishankar	IIT Kanpur	Syllabus	Y	Y
9	Human Resource Management-I	Prof. Kalyan Chakravarti	IIT Kharagpur	Syllabus	Y	Y
10	Leadership	Prof. Kalyan Chakravarti	IIT Kharagpur	Syllabus	Y	Y
11	Management Information System	Prof. Biswajit Mahanty	IIT Kharagpur	Syllabus	Y	Y
12	Management Science I	Prof. Anuradha Sharma	IIT Delhi	Syllabus	N	Y
13	Materials Science	Prof. S.K. Gupta	IIT Delhi	Syllabus	N	Y
14	Mathematics I	Dr. P. Shunmugaraj, Prof. Swagato K. Ray, Prof. Shobha Madan	IIT Kanpur	Syllabus	Y	Y
15	Mathematics II	Dr. Tanuja Srivastava, Dr. Sunita Gakkhar, Prof. H.G. Sharma	IIT Roorkee	Syllabus	Y	Y
16	Mathematics III	Prof. P.N. Agrawal, Dr. Tanuja Srivastava	IIT Roorkee	Syllabus	Y	Y
17	Numerical Methods and Computation	Prof. S. R. K. Iyengar	IIT Delhi	Syllabus	Y	Y
18	Numerical methods and programming	Prof. P.B. Sunil Kumar	IIT Madras	Syllabus	Y	Y
19	Physics I - Oscillations & Waves	Prof. S. Bharadwaj	IIT Kharagpur	Syllabus	Y	Y
20	Quantum Physics	Prof. V. Balakrishnan	IIT Madras	Syllabus	Y	Y
21	Strategic Management	Prof. Kalyan Chakravarti	IIT Kharagpur	Syllabus	Y	Y
<b>Biotechnology</b>						
1	Analytical Technologies in Biotechnology	Dr. Ashwani K. Sharma	IIT Roorkee	Syllabus	Y	Y
2	Animal Physiology	Prof. Mainak Das	IIT Kanpur	Syllabus	Y	Y
3	Bio electricity	Prof. Mainak Das	IIT Kanpur	Syllabus	Y	Y
4	Biomathematics	Dr. Ranjith Padinhateeri	IIT Bombay	Syllabus	Y	Y
5	Downstream Processing	Prof. Mukesh Doble	IIT Madras	Syllabus	Y	Y
6	Enzyme Science and Engineering	Prof. Subhash Chand	IIT Delhi	Syllabus	Y	Y
7	NOC:Bioreactors	Prof. G.K. Suraishkumar	IIT Madras	Syllabus	N	Y
8	NOC:Biostatistics and Design of Experiments	Prof. Mukesh Doble	IIT Madras	Syllabus	N	Y
9	NOC:Human Molecular Genetics	S. Ganesh	IIT Kanpur	Syllabus	N	Y
10	NOC:Interactomics: Protein Arrays & Label-free Biosensors	Prof. Sanjeeva Srivastava	IIT Bombay	Syllabus	N	Y
11	NOC:Mass spectrometry based proteomics	Prof. Sanjeeva Srivastava	IIT Bombay	Syllabus	N	Y
12	NOC:Principles of Downstream techniques in Bioprocess	Prof. Mukesh Doble	IIT Madras	Syllabus	N	Y
13	NOC:Proteins and Gel-Based Proteomics	Prof. Sanjeeva Srivastava	IIT Bombay	Syllabus	N	Y
14	Proteomics: Principles and Techniques	Prof. Sanjeeva Srivastava	IIT Bombay	Syllabus	Y	Y
15	Thermodynamics	Prof. G.K. Suraishkumar	IIT Madras	Syllabus	Y	Y

<b>Chemical Engineering</b>						
1	Advanced Chemical Reaction Engineering (PG)	Prof. H.S. Shankar	IIT Bombay	Syllabus	Y	Y
2	Advanced Mathematical Techniques in Chemical Engineering	Prof. S. De	IIT Kharagpur	Syllabus	Y	Y
3	Advanced Numerical Analysis	Prof. Sachin C. Patwardhan	IIT Bombay	Syllabus	N	Y
4	Advanced Process Control	Prof. Sachin C. Patwardhan	IIT Bombay	Syllabus	N	Y
5	Biochemical Engineering	Dr. Saikat Chakraborty,Dr. Rintu Banerjee	IIT Kharagpur	Syllabus	Y	Y
6	Chemical Engineering Principles of CVD Processes	Dr. R. Nagarajan	IIT Madras	Syllabus	N	Y
7	Chemical Engineering Thermodynamics	Prof. M.S. Ananth	IIT Madras	Syllabus	N	Y
8	Chemical Reaction Engineering	Prof. Jayant M Modak	IISc Bangalore	Syllabus	Y	Y
9	Chemical Reaction Engineering 1 (Homogeneous Reactors)	Prof K. Krishnaiah	IIT Madras	Syllabus	N	Y
10	Chemical Reaction Engineering 2 (Heterogeneous Reactors)	Prof K. Krishnaiah	IIT Madras	Syllabus	N	Y
11	Chemical Reaction Engineering II	Prof. A.K. Suresh,Prof. Sanjay M. Mahajani,Prof. Ganesh A. Viswanathan	IIT Bombay	Syllabus	Y	Y
12	Chemical Technology - I	Dr. I.D.Mall	IIT Roorkee	Syllabus	Y	Y
13	Computational Fluid Dynamics	Prof. Sreenivas Jayanti	IIT Madras	Syllabus	Y	Y
14	Computational Techniques	Dr. Niket S.Kaisare	IIT Madras	Syllabus	Y	Y
15	Fluid Mechanics	Dr. V. Shankar	IIT Kanpur	Syllabus	Y	Y
16	Fundamentals of Transport Processes	Prof. V. Kumaran	IISc Bangalore	Syllabus	Y	Y
17	Fundamentals of Transport Processes - II	Prof. V. Kumaran	IISc Bangalore	Syllabus	Y	Y
18	Heterogeneous Catalysis and Catalytic Processes	Dr. K.K. Pant	IIT Delhi	Syllabus	Y	Y
19	Instability and Patterning of Thin Polymer Films	Dr. R. Mukherjee	IIT Kharagpur	Syllabus	Y	Y
20	Mass Transfer II	Prof. Nishith Verma	IIT Kanpur	Syllabus	Y	Y
21	Mass Transfer Operations I	Dr. B. Mandal	IIT Guwahati	Syllabus	Y	Y
22	Mechanical Operations	Prof. Shabina Khanam	IIT Roorkee	Syllabus	N	Y
23	Microscale Transport Processes	Dr. Somnath Ganguly,Prof. S. Dasgupta	IIT Kharagpur	Syllabus	Y	Y
24	Modern Instrumental Methods of Analysis	Dr. J.R. Mudakavi	IISc Bangalore	Syllabus	Y	Y
25	Multiphase Flow	Prof. P.K. Das,Prof. Gargi Das	IIT Kharagpur	Syllabus	Y	Y
26	Multiphase flows:Analytical solutions and Stability Analysis	Prof. S.Pushpavanam	IIT Madras	Syllabus	N	Y
27	NOC:Computational Fluid Dynamics	Prof. Sreenivas Jayanti	IIT Madras	Syllabus	N	Y
28	NOC:Introduction to Process Modeling in Membrane Separation Process	Prof. S. De	IIT Kharagpur	Syllabus	N	Y
29	NOC:Introduction to Statistical Hypothesis Testing	Dr. Arun K.Tangirala	IIT Madras	Syllabus	N	Y
30	NOC:Introduction to Time-Frequency Analysis and Wavelet Transforms	Dr. Arun K.Tangirala	IIT Madras	Syllabus	N	Y
31	NOC:MATLAB Programming for Numerical Computation(Course sponsored)	Dr. Niket S.Kaisare	IIT Madras	Syllabus	N	Y
32	NOC:Soft Nano Technology	Dr. R. Mukherjee	IIT Kharagpur	Syllabus	N	Y
33	Novel Separation Processes	Prof. S. De	IIT Kharagpur	Syllabus	Y	Y
34	Particle Characterization (PG)	Dr. R. Nagarajan	IIT Madras	Syllabus	Y	Y
35	Plantwide Control of Chemical Processes	Dr. Nitin Kaistha	IIT Kanpur	Syllabus	Y	Y
36	Process Control and Instrumentation	Dr. D. Sarkar,Dr. A.K. Jana	IIT Kharagpur	Syllabus	Y	Y
37	Process Design Decisions and Project Economics	Dr. Vijay S. Moholkar	IIT Guwahati	Syllabus	Y	Y
38	Process Integration	Dr. B. Mohanty	IIT Roorkee	Syllabus	Y	Y
39	Statistics for Experimentalists	Dr. A. Kannan	IIT Madras	Syllabus	N	Y
<b>Chemistry and Biochemistry</b>						
1	Advance Analytical Course	Dr. Padma S Vankar	IIT Kanpur	Syllabus	Y	Y
2	Bio-inorganic chemistry	Prof. D. Ray	IIT Kharagpur	Syllabus	Y	Y

3	BioChemistry I	Prof. S. Dasgupta	IIT Kharagpur	Syllabus	Y	Y
4	Chemistry of Materials	Prof. S. Sundar Manoharan	IIT Kanpur	Syllabus	Y	Y
5	Co-ordination chemistry (chemistry of transition elements)	Prof. D. Ray	IIT Kharagpur	Syllabus	Y	Y
6	Essentials in Immunology	Dr. Dipankar Nandi, Prof. Anjali Karande, Dr. R. Manjunath	IISc Bangalore	Syllabus	Y	Y
7	Eukaryotic Gene Expression - basics and benefits	Prof. P.N. Rangarajan	IISc Bangalore	Syllabus	Y	Y
8	Heterocyclic Chemistry	Prof. D.R. Mal	IIT Kharagpur	Syllabus	Y	Y
9	Introduction to Organometallic Chemistry	Prof. A.G. Samuelson	IISc Bangalore	Syllabus	Y	Y
10	Introductory Quantum Chemistry	Prof. K.L. Sebastian	IISc Bangalore	Syllabus	Y	Y
11	Mathematics for Chemistry	Dr. P.P. Thankachan, Dr. Madhav Ranganathan	IIT Kanpur	Syllabus	Y	Y
12	NOC:Application of Spectroscopic Methods in Molecular Structure Determination	Prof. S. Sankararaman	IIT Madras	Syllabus	N	Y
13	NOC:Biochemistry	Prof. S. Dasgupta	IIT Kharagpur	Syllabus	N	Y
14	NOC:Chemical Applications of Symmetry and Group Theory	Prof. Manabendra Chandra	IIT Kanpur	Syllabus	N	Y
15	NOC:Chemistry - I	Prof. K. Mangala Sunder	IIT Madras	Syllabus	N	Y
16	NOC:Chemistry - II	Prof. K. Mangala Sunder	IIT Madras	Syllabus	N	Y
17	NOC:Organo Metallic Chemistry	Prof. Debabrata Maiti	IIT Bombay	Syllabus	N	Y
18	NOC:Pericyclic Reactions and Organic Photochemistry	Prof. S. Sankararaman	IIT Madras	Syllabus	N	Y
19	NOC:Principles and Applications of NMR Spectroscopy	Prof. Hanudatta S. Atreya	IISc Bangalore	Syllabus	N	Y
20	Organic photochemistry and pericyclic reactions	Dr. N.D. Pradeep Singh	IIT Kharagpur	Syllabus	Y	Y
21	Polymer Chemistry	Dr. D. Dhara	IIT Kharagpur	Syllabus	Y	Y
22	Principles and Applications of Electron Paramagnetic Resonance Spectroscopy	Prof. Ranjan Das	IIT Madras	Syllabus	N	Y
23	Rate processes	Dr. M. Halder	IIT Kharagpur	Syllabus	Y	Y
<b>Civil Engineering</b>						
1	Advanced Foundation Engineering	Dr. Kousik Deb	IIT Kharagpur	Syllabus	Y	Y
2	Advanced Geotechnical Engineering	Dr. B.V.S. Viswanadham	IIT Bombay	Syllabus	N	N
3	Advanced Hydraulics	Dr. Suresh A Kartha	IIT Guwahati	Syllabus	Y	Y
4	Advanced Hydrology	Dr. Ashu Jain	IIT Kanpur	Syllabus	Y	Y
5	Advanced Structural Analysis	Prof. Devdas Menon	IIT Madras	Syllabus	Y	Y
6	Application of Soil Mechanics	Dr. Nihar Ranjan Patra	IIT Kanpur	Syllabus	Y	Y
7	Civil Engineering - Building materials and Construction	Dr. B. Bhattacharjee	IIT Delhi	Syllabus	Y	Y
8	Concrete Engineering and Technology	Dr. Sudhir Misra	IIT Kanpur	Syllabus	Y	Y
9	Concrete Technology	Dr. B. Bhattacharjee	IIT Delhi	Syllabus	Y	Y
10	Design of Reinforced Concrete Structures	Prof. N. Dhang	IIT Kharagpur	Syllabus	Y	Y
11	Design of Steel Structures	Prof. Damodar Maity	IIT Guwahati	Syllabus	Y	Y
12	Engineering Geology	Dr. Debasis Roy	IIT Kharagpur	Syllabus	Y	Y
13	Environmental Air Pollution	Prof. Mukesh Sharma	IIT Kanpur	Syllabus	Y	Y
14	Finite Element Analysis	Dr. B.N. Rao	IIT Madras	Syllabus	Y	Y
15	Finite Element method for vibration and Stability analyses	Prof. C.S. Manohar	IISc Bangalore	Syllabus	N	Y
16	Fluid Mechanics	Dr. T.I. Eldho	IIT Bombay	Syllabus	Y	Y
17	Foundation Engineering	Prof. Mahendra Singh, Prof. N.K. Samadhiya, Prof. Priti Maheswari	IIT Roorkee	Syllabus	Y	Y
18	Geosynthetics and Reinforced Soil Structures	Dr. K. Rajagopal	IIT Madras	Syllabus	Y	Y
19	Geosynthetics Engineering: In Theory and Practice	Prof. J. N. Mandal	IIT Bombay	Syllabus	Y	Y
20	Geotechnical Earthquake Engineering	Dr. Deepankar Choudhury	IIT Bombay	Syllabus	N	Y
21	Geotechnical Measurements & Explorations	Dr. Nihar Ranjan Patra	IIT Kanpur	Syllabus	Y	Y
22	Ground Improvement Techniques	Dr. G.L. Sivakumar Babu	IISc Bangalore	Syllabus	Y	Y

23	Ground Water Hydrology	Dr. V.R. Desai,Dr. Anirban Dhar	IIT Kharagpur	Syllabus	N	Y
24	Hydraulics	Prof. Arup Kumar Sharma	IIT Guwahati	Syllabus	Y	Y
25	Introduction to Transportation Engineering	Dr. Bhargab Maitra,Dr. K.S. Reddy	IIT Kharagpur	Syllabus	Y	Y
26	Mechanics of solids	Prof. M.S. Sivakumar	IIT Madras	Syllabus	Y	Y
27	Modern Construction Materials	Dr. Ravindra Gettu	IIT Madras	Syllabus	Y	Y
28	Modern Surveying Techniques	Prof. S.K. Ghosh	IIT Roorkee	Syllabus	Y	Y
29	NOC:Earth Sciences for Civil Engineering	Prof. Javed N. Malik	IIT Kanpur	Syllabus	N	Y
30	NOC:Engineering Graphics	Dr. Nihar Ranjan Patra	IIT Kanpur	Syllabus	N	Y
31	NOC:Geology and Soil Mechanics	Dr. Priyanka Ghosh	IIT Kanpur	Syllabus	N	Y
32	NOC:GPS SURVEYING	Dr.Jayanta Kumar Ghosh	IIT Roorkee	Syllabus	N	Y
33	NOC:Introduction to Geographic Information Systems	Dr.Arun K.Saraf	IIT Roorkee	Syllabus	N	Y
34	NOC:Principles and Applications of Building Science	Dr. E. Rajasekar	IIT Roorkee	Syllabus	N	Y
35	NOC:Probability Methods in Civil Engineering	Dr. Rajib Maity	IIT Kharagpur	Syllabus	N	Y
36	NOC:Project Planning & Control(Course sponsored by Aricent)	Dr. Koshy Varghese	IIT Madras	Syllabus	N	Y
37	NOC:Structural Dynamics	Prof. Ramancharala Pradeep Kumar	IIT Madras	Syllabus	N	Y
38	NOC:Sustainable River Basin Management	Dr. Franziska Steinbruch	IIT Madras	Syllabus	Y	Y
39	Numerical Methods in Civil Engineering	Dr. A. Deb	IIT Kharagpur	Syllabus	Y	Y
40	Pre-stressed Concrete Structures	Prof. Devdas Menon,Dr. Amlan Kumar Sengupta	IIT Madras	Syllabus	Y	Y
41	Probability Methods in Civil Engineering	Dr. Rajib Maity	IIT Kharagpur	Syllabus	Y	Y
42	Seismic Analysis of Structures	Dr. Ashok Gupta,Dr. T.K. Datta	IIT Delhi	Syllabus	N	Y
43	Soil Dynamics	Dr. Deepankar Choudhury	IIT Bombay	Syllabus	Y	Y
44	Soil Mechanics	Dr. B.V.S. Viswanadham	IIT Bombay	Syllabus	Y	Y
45	Stochastic Hydrology	Prof. P.P. Mujumdar	IISc Bangalore	Syllabus	Y	Y
46	Stochastic Structural Dynamics	Prof. C.S. Manohar	IISc Bangalore	Syllabus	Y	Y
47	Strength of Materials	Prof. S.K. Bhattacharyya	IIT Kharagpur	Syllabus	Y	Y
48	Structural Analysis II	Dr. P. Banerji	IIT Bombay	Syllabus	Y	Y
49	Structural Dynamics	Dr. P. Banerji	IIT Bombay	Syllabus	Y	Y
50	Surveying	Dr. Bharat Lohani	IIT Kanpur	Syllabus	Y	Y
51	Transportation Engineering II	Prof. Rajat Rastogi	IIT Roorkee	Syllabus	Y	Y
52	Urban transportation planning	Dr. V. Thamizh Arasan	IIT Madras	Syllabus	Y	Y
53	Water and Waste Water Engineering	Prof. Ligy Philip,Prof. C. Venkobachar,Prof. B.S. Murty	IIT Madras	Syllabus	Y	Y
54	Water Resources Engineering	Dr. Pranab K Mohapatra,Prof. Rajesh Srivastava	IIT Kanpur	Syllabus	Y	Y
55	Water Resources Systems : Modeling Techniques and Analysis	Prof. P.P. Mujumdar	IISc Bangalore	Syllabus	Y	Y
56	Watershed Management	Dr. T.I. Eldho	IIT Bombay	Syllabus	Y	Y
<b>Computer Science and Engineering</b>						
1	Artificial Intelligence	Prof. S. Sarkar,Prof. Anupam Basu	IIT Kharagpur	Syllabus	Y	Y
2	Artificial Intelligence	Prof. Deepak Khemani	IIT Madras	Syllabus	Y	Y
3	Artificial Intelligence(Prof.P.Dasgupta)	Prof. P. Dasgupta	IIT Kharagpur	Syllabus	Y	Y
4	Biometrics	Prof. Phalguni Gupta	IIT Kanpur	Syllabus	Y	Y
5	Combinatorics	Dr. L. Sunil Chandran	IISc Bangalore	Syllabus	Y	Y
6	Compiler Design	Prof. Sanjeev K Aggarwal	IIT Kanpur	Syllabus	N	Y
7	Compiler Design	Prof. Y.N. Srikanth	IISc Bangalore	Syllabus	Y	Y
8	Computational Geometry	Prof. Sandeep Sen	IIT Delhi	Syllabus	Y	Y
9	Computer Algorithms - 2	Prof. Shashank K. Mehta	IIT Kanpur	Syllabus	Y	Y

10	Computer Architecture	Prof. Anshul Kumar	IIT Delhi	Syllabus	Y	Y
11	Computer Architecture	Dr. Mainak Chaudhuri	IIT Kanpur	Syllabus	Y	Y
12	Computer Graphics	Prof. Sukhendu Das	IIT Madras	Syllabus	Y	Y
13	Computer Networks	Prof. Sujoy Ghosh	IIT Kharagpur	Syllabus	Y	Y
14	Computer Organization	Prof. S. Raman	IIT Madras	Syllabus	Y	Y
15	Cryptography and Network Security	Dr. Debdeep Mukhopadhyay	IIT Kharagpur	Syllabus	Y	Y
16	Data Communication	Prof. Ajit Pal	IIT Kharagpur	Syllabus	Y	Y
17	Data Structures And Algorithms	Prof. Naveen Garg	IIT Delhi	Syllabus	Y	Y
18	Database Design	Prof. D. Janaki Ram,Dr. S. Srinath	IIT Madras	Syllabus	Y	Y
19	Design and Analysis of Algorithms	Prof. Abhiram G Ranade,Prof. Ajit A Diwan,Prof. Sundar Viswanathan	IIT Bombay	Syllabus	Y	Y
20	Design Verification and Test of Digital VLSI Circuits	Dr. Santosh Biswas,Prof. Jatindra Kumar Deka	IIT Guwahati	Syllabus	Y	Y
21	Discrete Mathematical Structures	Prof. Kamala Krithivasan	IIT Madras	Syllabus	Y	Y
22	Electronic Design Automation	Prof. Indranil Sengupta	IIT Kharagpur	Syllabus	Y	Y
23	Fundamental Algorithms:Design and Analysis	Prof.Sourav Mukhopadhyay	IIT Kharagpur	Syllabus	N	Y
24	Graph Theory	Dr. L. Sunil Chandran	IISc Bangalore	Syllabus	Y	Y
25	High Performance Computer Architecture	Prof. Ajit Pal	IIT Kharagpur	Syllabus	Y	Y
26	High Performance Computing	Prof. Mathew Jacob	IISc Bangalore	Syllabus	Y	Y
27	Internet Technology	Prof. Indranil Sengupta	IIT Kharagpur	Syllabus	Y	Y
28	Introduction to Computer Graphics	Prof. Prem K Kalra	IIT Delhi	Syllabus	Y	Y
29	Introduction to Problem Solving and Programming	Prof. D. Gupta	IIT Kanpur	Syllabus	Y	Y
30	Logic for CS	Prof. S. Arun Kumar	IIT Delhi	Syllabus	Y	Y
31	Low Power VLSI Circuits & Systems	Prof. Ajit Pal	IIT Kharagpur	Syllabus	Y	Y
32	Natural Language Processing	Prof. Pushpak Bhattacharyya	IIT Bombay	Syllabus	Y	Y
33	NOC:2016: Programming, Data structures and Algorithms	Prof. Hema A Murthy,Prof. Shankar Balachandran,Dr. N S. Narayanaswamy	IIT Madras	Syllabus	N	N
34	NOC:Algorithms for Big Data	Prof. John Augustine	IIT Madras	Syllabus	N	Y
35	NOC:Artificial Intelligence: Knowledge Representation and Reasoning	Prof. Deepak Khemani	IIT Madras	Syllabus	N	Y
36	NOC:Complex Network : Theory and Application	Prof. Animesh Mukherjee	IIT Kharagpur	Syllabus	N	Y
37	NOC:Computer Architecture(Course sponsored by Aricent)	Prof.Madhu Mutyam	IIT Madras	Syllabus	Y	Y
38	NOC:Design and Analysis of Algorithms	Prof. Madhavan Mukund	IIT Madras	Syllabus	N	Y
39	NOC:Functional Programming in Haskell	Prof. S P Suresh,Prof. Madhavan Mukund	IIT Madras	Syllabus	Y	N
40	NOC:Fundamentals of Database Systems(Course sponsored by Aricent)	Dr. Arnab Bhattacharya	IIT Kanpur	Syllabus	Y	Y
41	NOC:Information Security - II(Course sponsored by Aricent)	Prof. V. Kamakoti	IIT Madras	Syllabus	N	Y
42	NOC:Introduction to Cryptology	Dr. Sugata Gangopadhyay	IIT Roorkee	Syllabus	N	Y
43	NOC:Introduction to Information Security I	Prof. V. Kamakoti	IIT Madras	Syllabus	Y	Y
44	NOC:Introduction to Machine Learning	Prof. S. Sarkar	IIT Kharagpur	Syllabus	N	Y
45	NOC:Introduction to Machine Learning(Course sponsored by Aricent)	Dr. Balaraman Ravindran	IIT Madras	Syllabus	N	Y
46	NOC:Introduction to Modern Application Development	Prof. Gaurav Raina,Tanmai Gopal	IIT Madras	Syllabus	N	Y
47	NOC:Introduction to Operating Systems	Prof. Chester Rebeiro	IIT Madras	Syllabus	N	Y
48	NOC:Introduction to programming in C	Prof.Satyadev Nandakumar	IIT Kanpur	Syllabus	N	Y
49	NOC:Mobile Computing	Prof. Pushpendra Singh	IIT Madras	Syllabus	N	Y
50	NOC:Model Checking	Prof. B. Srivathsan	IIT Madras	Syllabus	N	Y
51	NOC:Modern Algebra	Prof. Manindra Agrawal	IIT Kanpur	Syllabus	N	Y
52	NOC:Object-Oriented Analysis and Design	Prof. Partha Pratim Das	IIT Kharagpur	Syllabus	N	Y
53	NOC:Privacy and Security in Online Social Networks	Prof. Ponnurangam Kumaraguru	IIT Madras	Syllabus	N	Y
54	NOC:Programming and Data structures (PDS)	Dr. N S. Narayanaswamy	IIT Madras	Syllabus	N	Y

55	NOC:Programming in C++	Prof. Partha Pratim Das	IIT Kharagpur	Syllabus	N	Y
56	NOC:Programming, Data Structures and Algorithms	Prof. Hema A Murthy,Dr. N S. Narayanaswamy,Prof. Shankar Balachandran	IIT Madras	Syllabus	N	Y
57	NOC:Programming, Data Structures and Algorithms in Python	Prof. Madhavan Mukund	IIT Madras	Syllabus	N	Y
58	NOC:Reinforcement Learning	Dr. B. Ravindran	IIT Madras	Syllabus	N	Y
59	NOC:Software Testing	Prof. Rajib Mall	IIT Kharagpur	Syllabus	N	Y
60	NOC:Theory of Computation	Prof. Raghunath Tewari	IIT Kanpur	Syllabus	N	Y
61	Numerical Optimization	Dr. Shirish K. Shevade	IISc Bangalore	Syllabus	Y	Y
62	Parallel Algorithm	Prof. Phalguni Gupta	IIT Kanpur	Syllabus	Y	Y
63	Parallel Computing	Dr. Subodh Kumar	IIT Delhi	Syllabus	N	Y
64	Pattern Recognition	Prof. C.A. Murthy,Prof. Sukhendu Das	IIT Madras	Syllabus	N	Y
65	Performance Evaluation of Computer Systems	Prof. Krishna Moorthy Sivalingam	IIT Madras	Syllabus	N	Y
66	Principles of Compiler Design	Prof. Y.N. Srikanth	IISc Bangalore	Syllabus	Y	Y
67	Principles of Programming Languages	Prof. S. Arun Kumar	IIT Delhi	Syllabus	Y	Y
68	Programming and Data Structure	Dr. P.P.Chakraborty	IIT Kharagpur	Syllabus	Y	Y
69	Real Time Systems	Prof. Rajib Mall	IIT Kharagpur	Syllabus	Y	Y
70	Riemann Hypothesis and its Applications	Prof. Manindra Agrawal	IIT Kanpur	Syllabus	Y	Y
71	Software Engineering	Prof. Rushikesh K Joshi,Prof. N.L. Sarda,Prof. Umesh Bellur	IIT Bombay	Syllabus	Y	Y
72	Storage Systems	Dr. K. Gopinath	IISc Bangalore	Syllabus	N	Y
73	System Analysis and Design	Prof. V. Rajaraman	IISc Bangalore	Syllabus	Y	Y
74	Theory of Automata, Formal Languages and Computation	Prof. Kamala Krithivasan	IIT Madras	Syllabus	Y	Y
75	Theory of Computation	Prof. Somenath Biswas	IIT Kanpur	Syllabus	N	Y
76	Virtual Reality	Prof Steven LaValle	IIT Madras	Syllabus	N	Y
<b>Electrical Engineering</b>						
1	Advanced Control Systems	Prof. S. Majhi	IIT Guwahati	Syllabus	Y	Y
2	Advanced Electric Drives	Dr. S.P. Das	IIT Kanpur	Syllabus	Y	Y
3	An Introduction to Electronics Systems Packaging	Prof. G.V. Mahesh	IISc Bangalore	Syllabus	Y	Y
4	Analog ICs	Prof. K. Radhakrishna Rao	IIT Madras	Syllabus	Y	Y
5	Basic Electrical Technology	Prof. L. Umanand	IISc Bangalore	Syllabus	Y	Y
6	Chaos, Fractals & Dynamic Systems	Prof. S. Banerjee	IIT Kharagpur	Syllabus	Y	Y
7	Circuit Theory	Prof. S.C. Dutta Roy	IIT Delhi	Syllabus	Y	Y
8	Control Engineering	Prof. S.D. Agashe	IIT Bombay	Syllabus	Y	Y
9	Control Engineering	Prof. M. Gopal	IIT Delhi	Syllabus	Y	Y
10	Digital Integrated Circuits	Prof. Amitava Dasgupta	IIT Madras	Syllabus	Y	Y
11	Digital Signal Processing	Prof. T.K. Basu	IIT Kharagpur	Syllabus	Y	Y
12	Dynamics of Physical Systems	Prof. S. Banerjee	IIT Kharagpur	Syllabus	Y	Y
13	Electrical Machines -I	Dr. D.Kastha	IIT Kharagpur	Syllabus	Y	Y
14	Electromagnetic Fields	Prof. Harishankar Ramachandran	IIT Madras	Syllabus	Y	Y
15	Embedded Systems	Prof. Santanu Chaudhary	IIT Delhi	Syllabus	Y	Y
16	Energy Resources & Technology	Prof. S. Banerjee	IIT Kharagpur	Syllabus	Y	Y
17	Estimation of Signals and Systems	Prof. S. Mukhopadhyay	IIT Kharagpur	Syllabus	Y	Y
18	Fabrication of Silicon VLSI Circuits using the MOS technology	Prof. A.N. Chandorkar	IIT Bombay	Syllabus	N	Y
19	High Voltage DC Transmission	Dr. S.N. Singh	IIT Kanpur	Syllabus	Y	Y
20	Illumination Engineering	Prof. N.K. Kishore	IIT Kharagpur	Syllabus	Y	Y

21	Industrial Automation and Control	Prof. S. Mukhopadhyay, Prof. S. Sen	IIT Kharagpur	Syllabus	Y	Y
22	Industrial Drives - Power Electronics	Prof. K. Gopakumar	IISc Bangalore	Syllabus	Y	Y
23	Industrial Instrumentation	Prof. Alok Barua	IIT Kharagpur	Syllabus	Y	Y
24	Intelligent Systems and Control	Prof. Laxmidhar Behera	IIT Kanpur	Syllabus	Y	Y
25	Modelling and Analysis of Electric Machines	Dr. Krishna Vasudevan	IIT Madras	Syllabus	N	Y
26	Networks and Systems	Prof. V.G.K. Murti	IIT Madras	Syllabus	Y	Y
27	Networks Signals and Systems	Prof. T.K. Basu	IIT Kharagpur	Syllabus	Y	Y
28	NOC:Analog Circuits	Dr. Nagendra Krishnapura	IIT Madras	Syllabus	Y	Y
29	NOC:Computational Electromagnetics & Applications	Prof. Krish Sankaran	IIT Bombay	Syllabus	N	Y
30	NOC:Electromagnetic theory	Dr. Pradeep Kumar K	IIT Kanpur	Syllabus	N	Y
31	NOC:Industrial Automation and Control(Course sponsored by Aricent)	Prof. S. Mukhopadhyay	IIT Kharagpur	Syllabus	N	Y
32	NOC:Introduction to Non Linear Dynamics	Prof. Gaurav Raina	IIT Madras	Syllabus	N	N
33	Nonlinear Dynamical Systems	Prof. Harish K. Pillai, Prof. Madhu N. Belur	IIT Bombay	Syllabus	Y	Y
34	Optimal Control	Prof. G.D. Ray	IIT Kharagpur	Syllabus	Y	Y
35	Power Electronics	Prof. B.G. Fernandes, Prof. Kishore Chatterjee	IIT Bombay	Syllabus	Y	Y
36	Power Electronics and Distributed Generation	Dr. Vinod John	IISc Bangalore	Syllabus	Y	Y
37	Power System Analysis	Prof. A.K. Sinha	IIT Kharagpur	Syllabus	Y	Y
38	Power System Dynamics	Dr. M.L. Kothari	IIT Delhi	Syllabus	Y	Y
39	Power System Dynamics and Control	Dr. A.M. Kulkarni	IIT Bombay	Syllabus	N	Y
40	Power System Generation, Transmission and Distribution (Encapsulated fro	Prof. D.P. Kothari	IIT Delhi	Syllabus	Y	Y
41	Power Systems Operation and Control	Dr. S.N. Singh	IIT Kanpur	Syllabus	Y	Y
42	Probability Foundation for Electrical Engineers	Dr. Krishna Jagannathan	IIT Madras	Syllabus	Y	Y
43	Pulse width Modulation for Power Electronic Converters	Dr. G. Narayanan	IISc Bangalore	Syllabus	N	Y
44	Switched Mode Power Conversion	Prof. L. Umanand, Prof. V. Ramanarayanan	IISc Bangalore	Syllabus	Y	Y
<b>Electronics and Communication Engineering</b>						
1	CMOS Analog VLSI Design	Prof. A.N. Chandorkar	IIT Bombay	Syllabus	N	Y
2	Adaptive Signal Processing	Prof. Mrityunjay Chakraborty	IIT Kharagpur	Syllabus	Y	Y
3	Adv. Digital Signal Processing - Multirate and wavelets	Prof. V.M. Gadre	IIT Bombay	Syllabus	Y	Y
4	Advanced 3G and 4G Wireless Mobile Communications	Prof. Aditya K. Jagannatham	IIT Kanpur	Syllabus	Y	Y
5	Advanced Logic Synthesis	Dhiraj Taneja	IIT Madras	Syllabus	N	Y
6	Advanced Optical Communication	Prof. R.K. Shevgaonkar	IIT Bombay	Syllabus	Y	Y
7	Advanced VLSI Design	Prof. A.N. Chandorkar, Prof. D.K. Sharma, Prof. Sachin Patkar, Prof. Virendra Singh	IIT Bombay	Syllabus	N	Y
8	Analog Circuits	Prof. A.N. Chandorkar	IIT Bombay	Syllabus	N	Y
9	Analog Circuits and Systems 1	Prof. K. Radhakrishna Rao	IISc Bangalore	Syllabus	N	N
10	Analog IC Design	Dr. Nagendra Krishnapura	IIT Madras	Syllabus	Y	Y
11	ARM Based Development	S.Chandramouleeswaran	IIT Madras	Syllabus	N	Y
12	Basic Electrical Circuits	Dr. Nagendra Krishnapura	IIT Madras	Syllabus	Y	Y
13	Basic Electronics	Prof. Chitralekha Mahanta	IIT Guwahati	Syllabus	Y	Y
14	Broadband Networks: Concepts and Technology	Prof. Abhay Karandikar	IIT Bombay	Syllabus	Y	Y
15	Circuits for Analog System Design	Prof. M.K. Gunasekaran	IISc Bangalore	Syllabus	Y	Y
16	Coding Theory	Dr. Andrew Thangaraj	IIT Madras	Syllabus	Y	Y
17	Communication Engineering	Prof. Surendra Prasad	IIT Delhi	Syllabus	Y	Y
18	Digital Circuits and Systems	Prof. S. Srinivasan	IIT Madras	Syllabus	Y	Y

19	Digital Communication	Prof. Bikash Kumar Dey	IIT Bombay	Syllabus	Y	Y
20	Digital Computer Organization	Prof. P.K. Biswas	IIT Kharagpur	Syllabus	Y	Y
21	Digital Image Processing	Prof. P.K. Biswas	IIT Kharagpur	Syllabus	Y	Y
22	Digital Signal Processing	Prof. S.C. Dutta Roy	IIT Delhi	Syllabus	Y	Y
23	Digital Switching	Prof. Yatindra N Singh	IIT Kanpur	Syllabus	Y	Y
24	Digital System design with PLDs and FPGAs	Prof. Kuruvilla Varghese	IISc Bangalore	Syllabus	N	Y
25	Digital Systems Design	Prof. D. Roychoudhury	IIT Kharagpur	Syllabus	Y	Y
26	Digital Voice & Picture Communication	Prof. Somnath Sengupta	IIT Kharagpur	Syllabus	Y	Y
27	Electronics for Analog Signal Processing - I	Prof. K. Radhakrishna Rao	IIT Madras	Syllabus	Y	Y
28	Electronics for Analog Signal Processing - II	Prof. K. Radhakrishna Rao	IIT Madras	Syllabus	Y	Y
29	Embedded Software Testing	MADHUKESHWARA H M	IIT Madras	Syllabus	N	Y
30	Error Correcting Codes	Prof. P. Vijay Kumar	IISc Bangalore	Syllabus	Y	Y
31	High Speed Devices and Circuits	Prof. K.N. Bhat	IIT Madras	Syllabus	Y	Y
32	Information Theory and Coding	Prof. S.N. Merchant	IIT Bombay	Syllabus	Y	Y
33	Linux Programming & Scripting	Anand Iyer	IIT Madras	Syllabus	N	Y
34	MEMS and Microsystems	Prof. Santiram Kal	IIT Kharagpur	Syllabus	Y	Y
35	Nanoelectronics: Devices and Materials	Dr. Navakanta Bhat,Dr. S.A. Shivashankar,Prof. K.N. Bhat	IISc Bangalore	Syllabus	N	Y
36	Neural Networks and Applications	Prof. Somnath Sengupta	IIT Kharagpur	Syllabus	Y	Y
37	NOC:An Introduction to Information Theory	Dr. Adrish Banerjee	IIT Kanpur	Syllabus	N	Y
38	NOC:Audio System Engineering	Prof. S. Dasmandal	IIT Kharagpur	Syllabus	N	Y
39	NOC:Basic Building Blocks of Microwave Engineering	Dr. Amitabha Bhattacharya	IIT Kharagpur	Syllabus	N	Y
40	NOC:Basic Electrical Circuits	Dr. Nagendra Krishnapura	IIT Madras	Syllabus	N	Y
41	NOC:Basic Tools of Microwave Engineering	Dr. Amitabha Bhattacharya	IIT Kharagpur	Syllabus	N	Y
42	/	Prof. Aditya K. Jagannatham	IIT Kanpur	Syllabus	N	Y
43	NOC:Design and Simulation of DC-DC converters using open source tools	Prof. L. Umanand	IISc Bangalore	Syllabus	N	Y
44	NOC:Digital Circuits and Systems	Prof. Shankar Balachandran	IIT Madras	Syllabus	N	Y
45	NOC:Digital Image Processing	Prof. P.K. Biswas	IIT Kharagpur	Syllabus	N	Y
46	NOC:Digital Switching - I	Prof. Yatindra N Singh	IIT Kanpur	Syllabus	N	Y
47	NOC:Discrete Time Signal Processing	Prof. Mrityunjoy Chakraborty	IIT Kharagpur	Syllabus	N	Y
48	NOC:Error Control Coding: An Introduction to Convolutional Codes	Dr. Adrish Banerjee	IIT Kanpur	Syllabus	N	Y
49	NOC:Error control coding: An introduction to linear block code	Dr. Adrish Banerjee	IIT Kanpur	Syllabus	N	Y
50	NOC:Estimation for Wireless Communications - MIMO/ OFDM Cellular and	Prof. Aditya K. Jagannatham	IIT Kanpur	Syllabus	N	Y
51	NOC:Foundations of Wavelets and Multirate Digital Signal Processing	Prof. V.M. Gadre	IIT Bombay	Syllabus	N	Y
52	NOC:Fundamentals of MIMO Wireless Communication	Prof. Suvra Sekhar Das	IIT Kharagpur	Syllabus	N	Y
53	NOC:Microwave Integrated Circuits	Prof. Jayanta Mukherjee	IIT Bombay	Syllabus	N	Y
54	NOC:Networks and Systems(Course sponsored by Aricent)	Prof. V.G.K. Murti,Dr. Andrew Thangaraj,C. S. Ramalingam	IIT Madras	Syllabus	N	Y
55	NOC:Optical communications	Dr. Pradeep Kumar K	IIT Kanpur	Syllabus	N	Y
56	NOC:Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications	Prof. Aditya K. Jagannatham	IIT Kanpur	Syllabus	Y	Y
57	NOC:Probability and Random Variables/ Processes for Wireless Communic	Prof. Aditya K. Jagannatham	IIT Kanpur	Syllabus	N	Y
58	NOC:Satellite Communication Systems	Prof. Kalyankumar Bandyopadhyay	IIT Kharagpur	Syllabus	N	Y
59	NOC:VLSI Design Verification and test	Dr. Santosh Biswas,Jatindra Kumar Deka,Prof.Arnab sarkar	IIT Guwahati	Syllabus	N	Y
60	Pattern Recognition	Prof. P.S. Sastry	IISc Bangalore	Syllabus	Y	Y
61	Pattern Recognition and Application	Prof. P.K. Biswas	IIT Kharagpur	Syllabus	Y	Y
62	Probability and Random Processes	Prof. Mrityunjoy Chakraborty	IIT Kharagpur	Syllabus	Y	Y
63	RF Integrated Circuits	Dr. Shouribrata Chatterjee	IIT Delhi	Syllabus	Y	Y
64	Semiconductor Device Modeling	Prof. S. Karmalkar	IIT Madras	Syllabus	N	Y

65	Signals and Systems	Prof. K.S. Venkatesh	IIT Kanpur	Syllabus	Y	Y
66	Solid State Devices	Prof. S. Karmalkar	IIT Madras	Syllabus	Y	Y
67	Transmission Lines and EM Waves	Prof. R.K. Shevgaonkar	IIT Bombay	Syllabus	Y	Y
68	VLSI Circuits	Prof. S. Srinivasan	IIT Madras	Syllabus	Y	Y
69	VLSI Data Conversion Circuits	Dr. Shanthi Pavan	IIT Madras	Syllabus	Y	Y
70	VLSI Technology	Dr. Nandita Dasgupta	IIT Madras	Syllabus	Y	Y
71	Wireless Communication	Prof. Ranjan Bose	IIT Delhi	Syllabus	Y	Y
<b>Engineering Design</b>						
1	Ergonomics for beginners: Industrial design perspective	Prof. Debkumar Chakrabarti	IIT Guwahati	Syllabus	Y	Y
2	Principles of Engineering System Design	Dr. T Asokan	IIT Madras	Syllabus	N	Y
3	Vehicle Dynamics	Dr. R. Krishnakumar	IIT Madras	Syllabus	N	Y
<b>General</b>						
1	Astronomy in Ancient, Medieval and Early Telescopic Era of India	Prof. Amitabha Ghosh	IIT Kanpur	Syllabus	N	Y
2	Ayurvedic Inheritance of India	Dr M. S. Valiathan	IIT Madras	Syllabus	Y	Y
3	Introduction to Japanese Language and Culture	Mrs.Vatsala Misra	IIT Kanpur	Syllabus	N	Y
4	NOC:Biology for engineers and other non-biologists	Dr. Madhulika Dixit,Prof. G.K. Suraishkumar	IIT Madras	Syllabus	N	Y
5	NOC:Introduction to Research	Prof. M.S. Ananth,Prof. C. Balaji,Dr. Abhijit P. Deshpande,Dr. Prathap Haridoss,Dr. G. Phanikumar,Dr. Arun K.Tangirala	IIT Madras	Syllabus	N	Y
6	NOC:Stress Management	Prof. Rajlakshmi Guha	IIT Kharagpur	Syllabus	N	Y
<b>Humanities and Social Sciences</b>						
1	Aspects of Western Philosophy	Dr. Sreekumar Nellickappilly	IIT Madras	Syllabus	N	Y
2	Better Spoken English	Prof. Shreesh Chaudhary	IIT Madras	Syllabus	Y	Y
3	Communication Skills	Dr. T. Ravichandran	IIT Kanpur	Syllabus	Y	Y
4	Contemporary Issues in Philosophy of Mind & Cognition	Dr. Rajakishore Nath,Dr. Ranjan K.Panda	IIT Bombay	Syllabus	Y	Y
5	Contemporary Literature	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	Y	Y
6	Cultural Studies	Dr. Liza Das	IIT Guwahati	Syllabus	Y	Y
7	English Language and Literature	Dr. Liza Das,Dr. Krishna Barua	IIT Guwahati	Syllabus	Y	Y
8	Ethics	Dr. Vineet Sahu	IIT Kanpur	Syllabus	N	Y
9	Game Theory and Economics	Dr. Debarshi Das	IIT Guwahati	Syllabus	Y	Y
10	History of Economic Theory	Prof. S.S.SivaKumar	IIT Madras	Syllabus	Y	Y
11	Human Adjustment Processes	Braj Bhushan	IIT Kanpur	Syllabus	Y	Y
12	Indian Philosophy	Dr. Satya Sundar Sethy	IIT Madras	Syllabus	Y	Y
13	International Economics	Dr. Somesh K. Mathur	IIT Kanpur	Syllabus	Y	Y
14	Introduction to Film Studies	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	Y	Y
15	Introduction to Logic	Dr. A.V. Ravishankar Sarma	IIT Kanpur	Syllabus	N	Y
16	Introduction to Modern Linguistics	Prof. Shreesh Chaudhary,Prof. Rajesh Kumar	IIT Madras	Syllabus	N	Y
17	Introduction to Sociology	Prof. A.K. Sharma	IIT Kanpur	Syllabus	Y	Y
18	Macro Economics	Prof.Surajit Sinha	IIT Kanpur	Syllabus	Y	Y
19	Money & Banking	Prof.Surajit Sinha	IIT Kanpur	Syllabus	Y	Y
20	NOC: Film Appreciation	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	N	Y

21	NOC:American Literature & Culture	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	N	Y
22	NOC:Applied Linguistics	Prof. Rajesh Kumar	IIT Madras	Syllabus	N	Y
23	NOC:Appreciating carnatic music	Dr. Lakshmi Sreeram	IIT Madras	Syllabus	N	Y
24	NOC:Basic Concepts of Modal Logic	Dr. A.V. Ravishankar Sarma	IIT Kanpur	Syllabus	N	Y
25	NOC:Brief introduction to Psychology	Braj Bhushan	IIT Kanpur	Syllabus	N	Y
26	NOC:Developing Soft Skills and Personality	Dr. T. Ravichandran	IIT Kanpur	Syllabus	N	Y
27	NOC:Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation	Dr. Sougata Karmakar	IIT Guwahati	Syllabus	N	Y
28	NOC:Economics of IPR	Prof.Nalin Bharti	IIT Madras	Syllabus	N	Y
29	NOC:Elements of Visual Representation	Dr. Shatarupa Thakurta Roy	IIT Kanpur	Syllabus	N	Y
30	NOC:Folk and Minor Art in India	Dr. Shatarupa Thakurta Roy	IIT Kanpur	Syllabus	N	Y
31	NOC:Globalization and Culture	Prof. Anjali Gera Roy	IIT Kharagpur	Syllabus	N	Y
32	NOC:Health Research Fundamentals	Dr. R Ramakrishnan,Dr. Tarun Bhatnagar,Dr. Prabhdeep Kaur,Dr. P. Manickam,Dr. P GaneshKumar,Dr. Sanjay Mehendale,Dr. Manoj V Murhekar	IIT Madras	Syllabus	N	Y
33	NOC:How the Brain Creates Mind	Alok Bajpai	IIT Kanpur	Syllabus	N	Y
34	NOC:Infrastructure Economics	Prof.Nalin Bharti	IIT Madras	Syllabus	Y	Y
35	NOC:Introduction on Intellectual Property to Engineers and Technologists	Prof. Tapas Kumar Bandyopadhyay	IIT Kharagpur	Syllabus	N	Y
36	NOC:Introduction to Indian Art - An appreciation	Prof.Soumik Nandy Majumdar	IIT Kanpur	Syllabus	N	Y
37	NOC:Introduction to Psychology	Braj Bhushan	IIT Kanpur	Syllabus	N	Y
38	NOC:Issues in Bioethics	Dr. Sreekumar Nellickappilly	IIT Madras	Syllabus	N	Y
39	NOC:Language and Mind	Prof. Rajesh Kumar	IIT Madras	Syllabus	N	Y
40	NOC:Language and society	Prof. Rajesh Kumar	IIT Madras	Syllabus	N	Y
41	NOC:Legal Compliance for Incorporating Startup	Prof. Indrajit Dube	IIT Kharagpur	Syllabus	N	Y
42	NOC:Literary Theory and Literary Criticism	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	Y	Y
43	NOC:Practical English: Learning and Teaching(Course sponsored by Aricen)	Dr. Bhaskar Dasgupta	IIT Kanpur	Syllabus	Y	Y
44	NOC:Probability and Stochastic for Finance II	Dr. Joydeep Dutta	IIT Kanpur	Syllabus	N	Y
45	NOC:Psychiatry:An overview	Alok Bajpai	IIT Kanpur	Syllabus	N	Y
46	NOC:Soft Skill Development	Prof. D. Suar,Prof. Priyadarshi Patnaik,Prof. V.N. Giri	IIT Kharagpur	Syllabus	N	Y
47	NOC:Symbolic Logic	Prof. Chhanda Chakraborti	IIT Kharagpur	Syllabus	N	Y
48	NOC:Technical English for Engineers(Course sponsored by Aricent)	Dr. Aysha Iqbal Viswamohan	IIT Madras	Syllabus	N	Y
49	NOC:Technology Transfer through Joint Venture	Prof. Indrajit Dube	IIT Kharagpur	Syllabus	N	Y
50	NOC:Time value of money-Concepts and Calculations	Dr.Bikash Mohanty	IIT Roorkee	Syllabus	N	Y
51	NOC:Understanding Design Thinking & People Centred Design	Prof. Jhumkee Iyengar	IIT Kanpur	Syllabus	N	Y
52	Population and Society	Prof. A.K. Sharma	IIT Kanpur	Syllabus	Y	Y
53	Principles and Parameters in Natural Language	Prof. Rajesh Kumar	IIT Madras	Syllabus	N	Y
54	Selected Topics in Psychology	Girishwar Misra,Vivek Benegal,JBP Sinha,Braj Bhushan,Manas K Mandal,Ajit Dalal,Rakesh K. Gupta,Alok Bajpai,Ramadhar Singh	IIT Kanpur	Syllabus	Y	Y
55	Understanding Creativity and Creative Writing	Prof. Neelima Talwar	IIT Bombay	Syllabus	Y	Y
<b>Management</b>						
1	Applied Multivariate Statistical Modeling	Dr J Maiti	IIT Kharagpur	Syllabus	Y	Y
2	Business Analysis for Engineers	Dr. S. Vaidhyasubramaniam	IIT Madras	Syllabus	N	N
3	Consumer Behaviour	Dr. Sangeeta Sahney	IIT Kharagpur	Syllabus	Y	Y
4	Econometric Modelling	Dr. Rudra P. Pradhan	IIT Kharagpur	Syllabus	Y	Y
5	Economics / Management / Entrepreneurship	Prof. P.K.J. Mohapatra	IIT Kharagpur	Syllabus	N	Y
6	Global Supply Chain Management	Prof. N.Viswanadham	IISc Bangalore	Syllabus	N	Y

7	Infrastructure Finance	Dr. A. Thillai Rajan	IIT Madras	Syllabus	Y	Y
8	International Business Communication	Prof. A Malik	IIT Kharagpur	Syllabus	Y	Y
9	International Finance	Dr. Arun K. Misra	IIT Kharagpur	Syllabus	Y	Y
10	Managerial Accounting	Dr. Varadraj Bapat	IIT Bombay	Syllabus	Y	Y
11	Managerial Economics	Dr. Trupti Mishra	IIT Bombay	Syllabus	Y	Y
12	Manufacturing Systems Management	Prof. G. Srinivasan	IIT Madras	Syllabus	N	Y
13	NOC:Commodity Derivatives and Risk Management	Dr. Prabina Rajib	IIT Kharagpur	Syllabus	N	Y
14	NOC:Introduction to Data analytics	Dr. Nandan Sudarsanam,Dr. Balaraman Ravindran	IIT Madras	Syllabus	N	Y
15	NOC:Introduction to Data Analytics(Course sponsored by Aricent)	Dr. Nandan Sudarsanam,Dr. Balaraman Ravindran	IIT Madras	Syllabus	N	Y
16	NOC:Introduction to Operations Research	Prof. G. Srinivasan	IIT Madras	Syllabus	N	Y
17	NOC:Managing Services(Course sponsored by Aricent)	Prof. Jayanta Chatterjee	IIT Kanpur	Syllabus	N	Y
18	NOC:Marketing Management - II	Prof. Jayanta Chatterjee,Dr. Shashi Shekhar Mishra	IIT Kanpur	Syllabus	N	Y
19	NOC:Marketing Management-I	Prof. Jayanta Chatterjee,Dr. Shashi Shekhar Mishra	IIT Kanpur	Syllabus	N	Y
20	NOC:Principles of Human Resource Management	Prof. A Malik	IIT Kharagpur	Syllabus	N	Y
21	NOC:Quantitative Finance	Dr. Raghu Nandan Sengupta	IIT Kanpur	Syllabus	Y	Y
22	NOC:Strategic Communication for Sustainable Development	Prof. A Malik	IIT Kharagpur	Syllabus	N	Y
23	NOC:Strategy: An Introduction to game Theory	Prof. Aditya K. Jagannatham,Dr. Vimal Kumar	IIT Kanpur	Syllabus	N	Y
24	Operations and Supply Chain Management	Prof. G. Srinivasan	IIT Madras	Syllabus	Y	Y
25	Organisation Management	Prof. Vinayshil Gautam	IIT Delhi	Syllabus	Y	Y
26	Organisation of Engineering Systems and Human Resources Management	Prof. Vinayshil Gautam	IIT Delhi	Syllabus	Y	Y
27	Organizational Behaviour	Dr. Susmita Mukhopadhyay	IIT Kharagpur	Syllabus	Y	Y
28	Security Analysis and Portfolio Management	Dr. Chandra Sekhar Mishra,Dr. Jitendra Mahakud	IIT Kharagpur	Syllabus	Y	Y
29	Six Sigma	Prof. Tapan P. Bagchi	IIT Kharagpur	Syllabus	Y	Y
30	Strategic Management	Prof. R. Srinivasan	IISc Bangalore	Syllabus	Y	Y
31	Strategic Marketing - Contemporary Issues	Prof. Jayanta Chatterjee	IIT Kanpur	Syllabus	Y	Y
<b>Mathematics</b>						
1	Advanced Complex Analysis - Part 2: Compactness of Meromorphic Functions	Dr. T.E. Venkata Balaji	IIT Madras	Syllabus	N	Y
2	A Basic Course in Real Analysis	Prof. P.D. Srivastava	IIT Kharagpur	Syllabus	Y	Y
3	Advanced Complex Analysis - Part 1: Zeros of Analytic Functions, Analytic Continuation	Dr. T.E. Venkata Balaji	IIT Madras	Syllabus	N	Y
4	Advanced Engineering Mathematics	Prof. P.D. Srivastava, Prof. J. Kumar, Dr. P. Panigrahi, Prof. Somesh Kumar	IIT Kharagpur	Syllabus	Y	Y
5	Advanced Matrix Theory and Linear Algebra for Engineers	Prof. Vittal Rao	IISc Bangalore	Syllabus	Y	Y
6	An Introduction to Riemann Surfaces and Algebraic Curves: Complex 1-Tori	Dr. T.E. Venkata Balaji	IIT Madras	Syllabus	N	Y
7	Applied Multivariate Analysis	Dr. Amit Mitra, Dr. Sharmishtha Mitra	IIT Kanpur	Syllabus	Y	Y
8	Basic Algebraic Geometry : Varieties, Morphisms, Local Rings, Function Fields	Dr. T.E. Venkata Balaji	IIT Madras	Syllabus	N	Y
9	Calculus of Variations and Integral Equations	Prof. D. Bahuguna, Dr. Malay Banerjee	IIT Kanpur	Syllabus	Y	Y
10	Complex Analysis	Prof. P. A. S. Sree Krishna	IIT Guwahati	Syllabus	Y	Y
11	Convex Optimization	Dr. Joydeep Dutta	IIT Kanpur	Syllabus	Y	Y
12	Discrete Mathematics	Dr. Sugata Gangopadhyay, Dr. Aditi Gangopadhyay	IIT Roorkee	Syllabus	N	Y
13	Dynamic Data Assimilation: an introduction	Prof. S. Lakshminarayanan	IIT Madras	Syllabus	N	Y
14	Elementary Numerical Analysis	Prof. Rekha P. Kulkarni	IIT Bombay	Syllabus	Y	Y
15	Formal Languages and Automata Theory	Dr. Diganta Goswami, Dr. K.V. Krishna	IIT Guwahati	Syllabus	Y	Y
16	Foundations of Optimization	Dr. Joydeep Dutta	IIT Kanpur	Syllabus	Y	Y
17	Functional Analysis	Prof. P.D. Srivastava	IIT Kharagpur	Syllabus	Y	Y
18	Linear Algebra	Dr. K.C. Sivakumar	IIT Madras	Syllabus	N	Y

19	Linear programming and Extensions	Prof. Prabha Sharma	IIT Kanpur	Syllabus	Y	Y
20	Mathematical Logic	Prof. Arindama Singh	IIT Madras	Syllabus	Y	Y
21	Mathematics in India - From Vedic Period to Modern Times	Prof. M.D.Srinivas ,Prof.M.S.Sriram,Prof.K.Ramasubramanian	IIT Bombay	Syllabus	N	Y
22	Measure and Integration	Prof. Inder K Rana	IIT Bombay	Syllabus	N	Y
23	NOC:An invitation to mathematics	Prof. Sankaran Vishwanath	IIT Madras	Syllabus	N	Y
24	NOC:Applied Multivariate Statistical Modeling	Dr J Maiti	IIT Kharagpur	Syllabus	N	Y
25	NOC:Basic Calculus for Engineers, Scientists and Economists	Dr. Joydeep Dutta	IIT Kanpur	Syllabus	N	Y
26	NOC:Curves and Surfaces	Prof. Sudipta Dutta	IIT Kanpur	Syllabus	N	Y
27	NOC:Differential Calculus in Several Variables	Prof. Sudipta Dutta	IIT Kanpur	Syllabus	N	Y
28	NOC:Discrete Mathematics	Prof. Sourav Chakraborty	IIT Madras	Syllabus	N	Y
29	NOC:Partial Differential Equations (PDE) for Engineers: Solution by Separation of Variables	Prof. S. De	IIT Kharagpur	Syllabus	N	Y
30	NOC:Probability and Statistics	Prof. Somesh Kumar	IIT Kharagpur	Syllabus	N	Y
31	NOC:Probability and Stochastics for finance	Dr. Joydeep Dutta	IIT Kanpur	Syllabus	N	Y
32	NOC:Stochastic Processes - 1	Dr. S. Dharmaraja	IIT Delhi	Syllabus	N	Y
33	Numerical methods of Ordinary and Partial Differential Equations	Dr. G.P. Raja Sekhar	IIT Kharagpur	Syllabus	Y	Y
34	Optimization	Prof. A. Goswami,Dr. Debjani Chakraborty	IIT Kharagpur	Syllabus	Y	Y
35	Ordinary Differential Equations and Applications	Raju K. George,P. S. Datti,A. K. Nandakumaran	IISc Bangalore	Syllabus	Y	Y
36	Probability and Statistics	Prof. Somesh Kumar	IIT Kharagpur	Syllabus	Y	Y
37	Probability Theory and Applications	Prof. Prabha Sharma	IIT Kanpur	Syllabus	Y	Y
38	Real Analysis	Prof. S.H. Kulkarni	IIT Madras	Syllabus	Y	Y
39	Regression Analysis	Dr. Soumen Maity	IIT Kharagpur	Syllabus	Y	Y
40	Statistical Inference	Prof. Somesh Kumar	IIT Kharagpur	Syllabus	N	Y
41	Statistical Methods for Scientists and Engineers	Prof. Somesh Kumar	IIT Kharagpur	Syllabus	N	N
42	Stochastic Processes	Dr. S. Dharmaraja	IIT Delhi	Syllabus	Y	Y
<b>Mechanical Engineering</b>						
1	Acoustics	Prof. Nachiketa Tiwari	IIT Kanpur	Syllabus	N	Y
2	Advanced Finite Elements Analysis	Dr. R. Krishnakumar	IIT Madras	Syllabus	Y	Y
3	Advanced Gas Dynamics	Dr. Rinku Mukherjee	IIT Madras	Syllabus	N	Y
4	Advanced Machining Processes	Prof. Vijay K. Jain	IIT Kanpur	Syllabus	N	Y
5	Advanced manufacturing process for micro system fabrication	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	Y	Y
6	Advanced Manufacturing Processes	Dr. A. K. Sharma	IIT Roorkee	Syllabus	Y	Y
7	Advanced Operations Research	Prof. G. Srinivasan	IIT Madras	Syllabus	Y	Y
8	Advanced Strength of Materials	Prof. S.K. Maiti	IIT Bombay	Syllabus	Y	Y
9	Basic Thermodynamics	Prof. S.K. Som	IIT Kharagpur	Syllabus	Y	Y
10	Biomicroelectromechanical systems	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	Y	Y
11	Computational Fluid Dynamics	Prof. S. Chakraborty	IIT Kharagpur	Syllabus	Y	Y
12	Computational Fluid Dynamics	Dr. K. M. Singh	IIT Roorkee	Syllabus	N	Y
13	Computer Aided Design and Manufacturing	Prof. P.V. Madhusudan Rao,Prof. Anoop Chawla	IIT Delhi	Syllabus	Y	Y
14	Computer Aided Engineering Design	Dr. Anupam Saxena	IIT Kanpur	Syllabus	Y	Y
15	Conduction And Radiation	Prof. C. Balaji	IIT Madras	Syllabus	N	Y
16	Convective Heat and Mass Transfer	Prof. A.W. Date	IIT Bombay	Syllabus	N	Y
17	Convective Heat Transfer	Dr. Arvind Pattamatta,Prof. Ajit K. Kolar	IIT Madras	Syllabus	N	Y
18	Cryogenic Engineering	Prof. M.D. Atrey	IIT Bombay	Syllabus	Y	Y
19	Design and Optimization of Energy systems	Prof. C. Balaji	IIT Madras	Syllabus	Y	Y

20	Design of Machine Elements I	Prof. G. Chakraborty, Prof. S.K. Roychowdhury, Prof. B. Maiti	IIT Kharagpur	Syllabus	N	Y
21	Dynamics of Machines	Prof. Amitabha Ghosh	IIT Kanpur	Syllabus	Y	Y
22	Engineering Drawing	Dr. Anupam Saxena	IIT Kanpur	Syllabus	Y	Y
23	Engineering Fracture Mechanics	Prof. K. Ramesh	IIT Madras	Syllabus	Y	Y
24	Engineering Mechanics	Prof. U.S. Dixit, Dr. G. Saravana Kumar	IIT Guwahati	Syllabus	Y	Y
25	Experimental Stress Analysis	Prof. K. Ramesh	IIT Madras	Syllabus	Y	Y
26	Finite Element Method	Prof. C.S. Upadhyay	IIT Kanpur	Syllabus	Y	Y
27	Fluid Mechanics	Prof. S.K. Som	IIT Kharagpur	Syllabus	Y	Y
28	Fundamentals of Industrial Oil Hydraulics and Pneumatics	Prof. R.N. Maiti	IIT Kharagpur	Syllabus	N	N
29	Fundamentals of Operations Research	Prof. G. Srinivasan	IIT Madras	Syllabus	Y	Y
30	Gas Dynamics and Propulsion	Prof. V. Babu	IIT Madras	Syllabus	N	Y
31	Heat and Mass Transfer	Prof. U.N. Gaitonde, Prof. S.P. Sukhatme	IIT Bombay	Syllabus	Y	Y
32	Industrial Engineering	Prof. P.K. Jain, Dr. D. K. Dwivedi, Dr. Inderdeep Singh, Dr. Pradeep Kumar	IIT Roorkee	Syllabus	Y	Y
33	Introduction to Explosions and Explosion Safety	Prof. K. Ramamurthi	IIT Madras	Syllabus	Y	Y
34	Introduction to Finite Element Method	Dr. R. Krishnakumar	IIT Madras	Syllabus	Y	Y
35	Introduction to Fluid Machines and Compressible Flow	Prof. S.K. Som	IIT Kharagpur	Syllabus	Y	Y
36	Introduction to Fluid Mechanics and Fluid Engineering	Prof. S. Chakraborty	IIT Kharagpur	Syllabus	N	Y
37	Kinematics of Machines	Prof. Ashok K Mallik	IIT Kanpur	Syllabus	Y	Y
38	Machinery fault diagnosis and signal processing	Prof. A.R. Mohanty	IIT Kharagpur	Syllabus	N	Y
39	Manufacturing Processes I	Dr. Inderdeep Singh, Dr. D. B. Karunakar, Dr. D. K. Dwivedi	IIT Roorkee	Syllabus	Y	Y
40	Manufacturing Processes II	Prof. A.K. Chattopadhyay, Prof. A.B. Chattopadhyay, Prof. S. Paul	IIT Kharagpur	Syllabus	Y	Y
41	Mathematical Methods in Engineering and Science	Dr. Bhaskar Dasgupta	IIT Kanpur	Syllabus	N	Y
42	Mechanical Measurements and Metrology	Prof. S.P. Venkateshan, Prof. Shunmugam M. S	IIT Madras	Syllabus	Y	Y
43	Mechanical Vibrations	Prof. Rajiv Tiwari, Prof. S.K. Dwivedy	IIT Guwahati	Syllabus	Y	Y
44	Micro and Smart Systems	Prof. K.N. Bhat, Prof. G.K. Anathasuresh, Prof. S. Gopalakrishnan, Dr. K.J. Vinoy	IISc Bangalore	Syllabus	N	Y
45	Micro fluidics	Prof. S. Chakraborty	IIT Kharagpur	Syllabus	N	Y
46	Microfluidics	Dr. Ashis Kumar Sen	IIT Madras	Syllabus	N	Y
47	NOC:Advanced Machining Processes	Prof. Manas Das	IIT Guwahati	Syllabus	N	Y
48	NOC:Basics of Finite Element Analysis	Prof. Nachiketa Tiwari	IIT Kanpur	Syllabus	N	Y
49	NOC:Basics of Finite Element Analysis - II	Prof. Nachiketa Tiwari	IIT Kanpur	Syllabus	N	Y
50	NOC:Basics of Noise and Its Measurements	Prof. Nachiketa Tiwari	IIT Kanpur	Syllabus	N	Y
51	NOC:BioMEMS and Microsystems	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	Y	Y
52	NOC:Computer numerical control (CNC) of machine tools and processes	Prof. Asimava Roy Choudhury	IIT Kharagpur	Syllabus	N	Y
53	NOC:Conduction and Convection Heat Transfer	Prof. S.K. Som, Prof. S. Chakraborty	IIT Kharagpur	Syllabus	N	Y
54	NOC:Engineering Economic Analysis	Dr. Pradeep K. Jha	IIT Roorkee	Syllabus	N	Y
55	NOC:Engineering Mechanics Statics and Dynamics	Prof. Mahesh Panchagnula	IIT Madras	Syllabus	Y	Y
56	NOC:Experimental Stress Analysis:An Overview	Prof. K. Ramesh	IIT Madras	Syllabus	N	Y
57	NOC:Fluid Dynamics and Turbomachines	Prof. Dhiman Chatterjee, Prof. Shamit Bakshi	IIT Madras	Syllabus	N	Y
58	NOC:Fluid Machines	Prof. S.K. Som	IIT Kharagpur	Syllabus	N	Y
59	NOC:Foundation of Computational Fluid Dynamics	Dr. S. Vengadesan	IIT Madras	Syllabus	Y	Y
60	NOC:Fundamentals of Gas Dynamics	Prof. A. Sameen	IIT Madras	Syllabus	N	Y
61	NOC:Introduction to Boundary Layers	Dr. Rinku Mukherjee	IIT Madras	Syllabus	N	Y
62	NOC:Manufacturing Process Technology - II	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	N	Y
63	NOC:Manufacturing Process Technology -Part I	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	N	Y
64	NOC:Manufacturing Systems Technology Part I	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	N	Y
65	NOC:Manufacturing systems technology part II	Dr. Shantanu Bhattacharya	IIT Kanpur	Syllabus	N	Y

66	NOC:Nature and Property of Materials	Prof. Bishakh Bhattacharya	IIT Kanpur	Syllabus	N	Y
67	NOC:Refrigeration and air-conditioning	Prof. Ravi Kumar	IIT Roorkee	Syllabus	N	Y
68	NOC:Two phase flow and heat transfer	Dr. Arup Kumar Das	IIT Roorkee	Syllabus	N	Y
69	NOC:Variational Methods in Mechanics	Prof. G.K. Anathasuresh	IISc Bangalore	Syllabus	N	Y
70	NOC:Vibrations of Structures	Prof. A. Dasgupta	IIT Kharagpur	Syllabus	N	Y
71	Nonlinear Vibration	Prof. S.K. Dwivedy	IIT Guwahati	Syllabus	Y	Y
72	Principles of Mechanical Measurements	Prof. R. Raman	IIT Madras	Syllabus	Y	Y
73	Processing of non metals	Dr. Inderdeep Singh	IIT Roorkee	Syllabus	Y	Y
74	Project and Production Management	Prof. Arun Kanda	IIT Delhi	Syllabus	Y	Y
75	Refrigeration and Air Conditioning	Prof. M. Ramgopal,Prof. R.C. Arora	IIT Kharagpur	Syllabus	Y	Y
76	Robotics	Prof. P.S. Gandhi,Prof. P. Seshu,Prof. B. Seth,Prof. C. Amarnath,Prof. K. Kurien Issac	IIT Bombay	Syllabus	N	Y
77	Rocket Propulsion	Prof. K. Ramamurthi	IIT madras	Syllabus	Y	Y
78	Solar Energy Technology	Prof. V.V. Satyamurty	IIT Kharagpur	Syllabus	Y	Y
79	Spray Theory and Applications	Prof. Mahesh Panchagnula,Dr. Paul E. Sojka	IIT Madras	Syllabus	N	Y
80	Strength of Materials	Dr. S. P. Harsha	IIT Roorkee	Syllabus	Y	Y
81	Technology of Surface Coating	Prof. A.K. Chattopadhyay	IIT Kharagpur	Syllabus	N	Y
82	Theory & Practice of Rotor Dynamics	Prof. Rajiv Tiwari	IIT Guwahati	Syllabus	Y	Y
83	Tribology	Dr. Harish Hirani	IIT Delhi	Syllabus	Y	Y
84	Vibration control	Dr. S. P. Harsha	IIT Roorkee	Syllabus	Y	Y
85	Vibration of Structures	Prof. A. Dasgupta	IIT Kharagpur	Syllabus	Y	Y
86	Welding Engineering	Dr. D. K. Dwivedi	IIT Roorkee	Syllabus	Y	Y
<b>Metallurgy and Material Science</b>						
1	Advanced ceramics for strategic applications	Prof. H.S. Maiti	IIT Kharagpur	Syllabus	Y	Y
2	Advanced Characterization Techniques	Dr. Krishanu Biswas,Prof.N.P.Gurao	IIT Kanpur	Syllabus	N	Y
3	Advanced Materials and Processes	Prof. B.S. Murty	IIT Kharagpur	Syllabus	Y	Y
4	Advanced Metallurgical Thermodynamics	Prof. B.S. Murty	IIT Madras	Syllabus	Y	Y
5	Electroceramics	Dr. Ashish Garg	IIT Kanpur	Syllabus	Y	Y
6	Electronic materials, devices, and fabrication	Prof. Parasuraman S	IIT Madras	Syllabus	Y	Y
7	Environmental Degradation of Materials	Dr. Kallol Mondal	IIT Kanpur	Syllabus	N	Y
8	Fuels Refractory and Furnaces	Prof. Satish Ch. Koria	IIT Kanpur	Syllabus	N	Y
9	Introduction to Biomaterials	Dr. Birkamjit Basu,Dr. Kantesh Balani	IIT Kanpur	Syllabus	Y	Y
10	Materials and Energy balance in Metallurgical Processes	Prof. Satish Ch. Koria	IIT Kanpur	Syllabus	Y	Y
11	Materials Characterization	Dr. S. Sankaran	IIT Madras	Syllabus	N	Y
12	NOC:Analysis and Modeling of Welding	Dr. G. Phanikumar	IIT Madras	Syllabus	N	Y
13	NOC:Biomaterials for bone tissue engineering applications	Prof. Bikramjit Basu	IISc Bangalore	Syllabus	N	Y
14	NOC:Fundamentals of electronic materials and devices(Course sponsored I	Prof. Parasuraman S	IIT Madras	Syllabus	N	Y
15	NOC:Fundamentals of Material Processing - I	Prof. Shashank Shekhar	IIT Kanpur	Syllabus	N	Y
16	NOC:Fundamentals of optical and scanning electron microscopy	Dr. S. Sankaran	IIT Madras	Syllabus	N	Y
17	NOC:Heat Treatment and Surface Hardening - I	Dr. Kallol Mondal,Prof. Sandeep Sangal	IIT Kanpur	Syllabus	N	Y
18	NOC:Introduction to crystal elasticity and crystal plasticity	Prof. Swarup bag	IIT Guwahati	Syllabus	N	Y
19	NOC:Introduction to Reciprocal Space and its use in Solids	Dr. Prathap Haridoss	IIT Madras	Syllabus	N	Y
20	NOC:Phase Diagrams in Materials Science and Engineering	Dr. Krishanu Biswas	IIT Kanpur	Syllabus	N	Y
21	NOC:Phase field modelling: the materials science, mathematics and compu	Dr. M.P. Gururajan	IIT Bombay	Syllabus	N	Y

22	NOC:Theory and Practice of Non Destructive Testing	Dr. Ranjit Bauri	IIT Madras	Syllabus	N	Y
23	Non-ferrous Extractive Metallurgy	Mr. L Pugazhenty,Prof. H.S. Ray	IIT Kharagpur	Syllabus	Y	Y
24	Optoelectronic Materials and Devices	Prof. Monica Katiyar,Prof. Deepak Gupta	IIT Kanpur	Syllabus	Y	Y
25	Physics of Materials	Dr. Prathap Haridoss	IIT Madras	Syllabus	Y	Y
26	Principles of Physical Metallurgy	Prof. R.N. Ghosh	IIT Kharagpur	Syllabus	Y	Y
27	Processing of Semiconducting Materials	Dr. Pallab Banerji	IIT Kharagpur	Syllabus	Y	Y
28	Science and Technology of Polymers	Prof. B. Adhikari	IIT Kharagpur	Syllabus	Y	Y
29	Steel Making	Prof. Satish Ch. Korla ,Prof. Dipak Mazumdar	IIT Kanpur	Syllabus	Y	Y
30	Structure of Materials	Dr. Anandh Subramaniam	IIT Kanpur	Syllabus	Y	Y
<b>Mining Engineering</b>						
1	Fundamentals of Environmental Pollution and Control	Prof. J. Bhattacharyya	IIT Kharagpur	Syllabus	Y	Y
<b>Nanotechnology</b>						
1	Nano structured materials-synthesis, properties, self assembly and applications	Prof. A.K. Ganguli	IIT Delhi	Syllabus	Y	Y
2	Nanostructures and Nanomaterials: Characterization and Properties	Dr. Kantesh Balani,Dr. Anandh Subramaniam	IIT Kanpur	Syllabus	Y	Y
<b>Ocean Engineering</b>						
1	Advanced Marine Structures	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	Y	Y
2	Applied Thermodynamics for Marine Systems	Prof. P.K. Das	IIT Kharagpur	Syllabus	Y	Y
3	Coastal Engineering	Prof. V. Sundar	IIT Madras	Syllabus	Y	Y
4	Design of Offshore Structures	Dr. S. Nallayarasu	IIT Madras	Syllabus	Y	Y
5	Dynamics of Ocean Structures	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	Y	Y
6	Elements of Ocean Engineering	Dr. Ashoke Bhar	IIT Kharagpur	Syllabus	Y	Y
7	Foundation for Offshore Structures	Dr. S. Nallayarasu	IIT Madras	Syllabus	N	Y
8	Health,Safety and Environmental Management in Petroleum and Offshore E	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	Y	Y
9	Hydrostatics and Stability	Dr. Hari V. Warrior	IIT Kharagpur	Syllabus	Y	Y
10	Marine Construction and Welding	Prof. N.R. Mandal	IIT Kharagpur	Syllabus	Y	Y
11	Marine Hydrodynamics	Dr. T. Sahoo	IIT Kharagpur	Syllabus	Y	Y
12	NOC:Dynamics of Ocean Structures	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	N	Y
13	NOC:Health, Safety and Environmental Management in Offshore and Petro	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	N	Y
14	NOC:HSE for offshore and petroleum engineers-Practices	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	N	Y
15	NOC:Risk and Reliability of offshore structures	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	N	Y
16	Ocean Structures and Materials	Dr. Srinivasan Chandrasekaran	IIT Madras	Syllabus	Y	Y
17	Performance of Marine Vehicles at Sea	Prof. Debabrata Sen,Prof. S.C. Misra	IIT Kharagpur	Syllabus	Y	Y
18	Port and Harbour Structures	Prof. R. Sundaravadivelu	IIT Madras	Syllabus	N	Y
19	Seakeeping & Manoeuvring	Prof. Debabrata Sen	IIT Kharagpur	Syllabus	Y	Y
20	Ship Resistance and Propulsion	Prof. V. Anantha Subramanian,Dr. P. Krishnankutty	IIT Madras	Syllabus	Y	Y
21	Strength and Vibration of Marine Structures	Prof. S.K. Satsangi,Prof. A.H. Sheikh	IIT Kharagpur	Syllabus	Y	Y
22	Wave Hydrodynamics	Prof. V. Sundar	IIT Madras	Syllabus	Y	Y

<b>Physics</b>						
1	Astrophysics & Cosmology	Prof. S. Bharadwaj	IIT Kharagpur	Syllabus	N	Y
2	Classical Field Theory	Prof. Suresh Govindarajan	IIT Madras	Syllabus	Y	Y
3	Condensed Matter Physics	Prof. G. Rangarajan	IIT Madras	Syllabus	Y	Y
4	Electromagnetic Theory	Prof. D.K. Ghosh	IIT Bombay	Syllabus	N	Y
5	Electronics	Prof. D.C. Dube	IIT Delhi	Syllabus	Y	Y
6	NOC: Mechanics, heat oscillations and waves	Prof. V. Balakrishnan	IIT Madras	Syllabus	Y	Y
7	NOC:Engineering Mechanics	Prof. Manoj K Harbola	IIT Kanpur	Syllabus	N	Y
8	NOC:Introduction to Electromagnetism	Prof. Manoj K Harbola	IIT Kanpur	Syllabus	N	Y
9	NOC:Quantum Information and Computing	Prof.Dipan Ghosh	IIT Bombay	Syllabus	N	Y
10	Nonequilibrium Statistical Mechanics	Prof. V. Balakrishnan	IIT Madras	Syllabus	N	Y
11	Nuclear Physics: Fundamentals and Applications	Prof. H.C. Verma	IIT Kanpur	Syllabus	Y	Y
12	NUCLEAR REACTORS AND SAFETY- AN INTRODUCTION	Dr.G.Vaidyanathan	IIT Madras	Syllabus	N	Y
13	Physical Applications of Stochastic Processes	Prof. V. Balakrishnan	IIT Madras	Syllabus	N	Y
14	Plasma Physics: Fundamentals and Applications	Prof. Vijayshri,Prof. V.K. Tripathi	IIT Delhi	Syllabus	Y	Y
15	Quantum Electronics	Prof. K. Thyagarajan	IIT Delhi	Syllabus	Y	Y
16	Quantum Field Theory	Dr. Prasanta Tripathy	IIT Madras	Syllabus	Y	Y
17	Quantum Mechanics and Applications	Prof. Ajoy Ghatak	IIT Delhi	Syllabus	Y	Y
18	Quantum Mechanics I	Prof. S. Lakshmi Bala	IIT Madras	Syllabus	Y	Y
19	Relativistic Quantum Mechanics	Prof. Apoorva D Patel	IISc Bangalore	Syllabus	Y	Y
20	Selected Topics in Mathematical Physics	Prof. V. Balakrishnan	IIT Madras	Syllabus	Y	Y
21	Semiconductor Optoelectronics	Prof. M. R. Shenoy	IIT Delhi	Syllabus	Y	Y
22	Special Theory of Relativity	Prof. Shiva Prasad	IIT Bombay	Syllabus	N	Y
23	Special/Select Topics in Atomic Physics	Prof. P.C. Deshmukh	IIT Madras	Syllabus	N	Y
24	Special/Select Topics in Classical Mechanics	Prof. P.C. Deshmukh	IIT Madras	Syllabus	Y	Y
25	Special/Select Topics in the Theory of Atomic Collisions and Spectroscopy	Prof. P.C. Deshmukh	IIT Madras	Syllabus	N	Y
26	Topics in Nonlinear Dynamics	Prof. V. Balakrishnan	IIT Madras	Syllabus	N	Y
<b>Textile Engineering</b>						
1	Natural Dyes	Dr. Padma S Vankar	IIT Kanpur	Syllabus	Y	Y
2	Theory of Yarn Structures	Prof. Bohuslav Neckar	IIT Delhi	Syllabus	Y	Y