



## **NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING (NPTEL)**

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2. **Artificial Intelligence II**, Prof. P.Dasgupta, IIT Kharagpur
3. **Artificial Intelligence III**, Prof. Deepak Khemani, IIT Madras
4. **Biometrics**, Prof. Phalguni Gupta, IIT Kanpur
5. **C Programming and Data Structures**, Prof. P.P.Chakraborty, IIT Kharagpur
6. **Compiler Design**, Prof. Y.N.Srikant, IISc Bangalore
7. **Computational Geometry**, Prof. Sandeep Sen, IIT Delhi
8. **Computer Algorithms**, Prof. Shashank K. Mehta, IIT Kanpur
9. **Computer Architecture**, Prof. Anshul Kumar, IIT Delhi
10. **Computer Graphics**, Prof. Sukhendu Das, IIT Madras
11. **Computer Organization**, Prof. S. Raman, IIT Madras
12. **Cryptography and Network Security**, Prof. Debdeep Mukhopadhyay, IIT Kharagpur
13. **Data Structures And Algorithms**, Prof. Naveen Garg, IIT Delhi
14. **Database Design**, Prof. D. Janaki Ram, IIT Madras
15. **Database Management System**, Prof. D.Janakiram, IIT Madras
16. **Design and Analysis of Algorithms**, Prof. Abhiram G Ranade, IIT Bombay
17. **Digital Computer Organization**, Prof. P.K. Biswas, IIT Kharagpur
18. **Digital Systems Design**, Prof. D. Roychoudhury, IIT Kharagpur
19. **Discrete Mathematical Structures**, Prof. Kamala Krithivasan, IIT Madras
20. **Graph Theory**, Prof. L. Sunil Chandran, IISc Bangalore
21. **High Performance Computer Architecture**, Prof. Ajit Pal, IIT Kharagpur
22. **High Performance Computing**, Prof. Matthew Jacob, IISc Bangalore
23. **Internet Technologies**, Prof. I. Sengupta, IIT Kharagpur
24. **Internet Technology**, Prof. Indranil Sengupta, IIT Kharagpur
25. **Introduction to Computer Graphics**, Prof. Prem Kalra, IIT Delhi

26. <b>Introduction To Problem Solving, Programming</b> , Prof. Deepak Gupta, IIT Kanpur
27. <b>Logic for Computer Science</b> , Prof. S. Arun Kumar, IIT Delhi
28. <b>Logic for CS</b> , Prof. S. Arun Kumar, IIT Delhi
29. <b>Natural Language Processing</b> , Prof. Pushpak Bhattacharyya, IIT Bombay
30. <b>Numerical Analysis and Computer Programming</b> , Prof. P. B. Sunil Kumar, IIT Madras
31. <b>Numerical Methods and Programing</b> , Prof. P.B.Sunil Kumar, IIT Madras
32. <b>Numerical Optimization</b> , Prof. Shirish K. Shevade, IISc Bangalore
33. <b>Parallel Algorithm</b> , Prof. Phalguni Gupta, IIT Kanpur
34. <b>Parallel Computing</b> , Prof. Subodh Kumar, IIT Delhi
35. <b>Performance Evaluation of Computer Systems</b> , Prof. Krishna Moorthy Sivalingam, IIT Madras
36. <b>Principles of Engineering System Design</b> , Prof. T Asokan, IIT Madras
37. <b>Principles of Programming Languages</b> , Prof. S. Arun Kumar, IIT Madras
38. <b>Software Engineering</b> , Prof. Rushikesh K Joshi, IIT Bombay
39. <b>Systems Analysis and Design</b> , Prof. V Rajaraman, IISc Bangalore
40. <b>Theory of Computation I</b> , Prof. Kamala Krithivasan, IIT Madras

## **ELECTRONICS & COMMUNICATION**

1. <b>Active Filter Design</b> , Prof. Shanthi Pavan, IIT Madras
2. <b>Adaptive Signal Processing</b> , Prof. Mrityunjoy Chakraborty, IIT Kharagpur
3. <b>Advanced Digital Signal Processing</b> , Prof. V. M. Gadre, IIT Bombay
4. <b>Advanced Optical Communication</b> , Prof. R.K.Shevgaonkar, IIT Bombay
5. <b>Analog IC Design</b> , Prof. Nagendra Krishnapura, IIT Madras
6. <b>Analog VLSI and CAD</b> , Prof. Pallab Dasgupta, IIT Kharagpur
7. <b>Basic Electronics</b> , Prof. Chitralkha Mahanta, IIT Guwahati
8. <b>Basic Electronics and Lab</b> , Prof. T.S. Natarajan, IIT Madras
9. <b>Circuits for Analog System Design</b> , Prof. M.K. Gunasekaran, IISc Bangalore
10. <b>Coding Theory</b> , Prof. Andrew Thangaraj, IIT Madras
11. <b>Communication Engineering</b> , Prof. Surendra Prasad, IIT Delhi
12. <b>Design Verification and Test of Digital VLSI Circuit</b> , Prof. Jatindra Kumar Deka, IIT Guwahati
13. <b>Digital Communication</b> , Prof. Bikash Kumar Dey, IIT Bombay
14. <b>Digital Image Processing (IIT Kharagpur)</b> , Prof. P.K. Biswas, IIT Kharagpur

15. <b>Digital Integrated Circuits (IITMadras)</b> , Prof. Amitava Dasgupta, IIT Madras
16. <b>Digital Signal Processing (IIT Delhi)</b> , Prof. S.C. Dutta Roy, IIT Delhi
17. <b>Digital Voice and Picture Communication</b> , Prof. Sabyasachi Sengupta, IIT Kharagpur
18. <b>Electronic Design and Automation</b> , Prof. I.Sengupta, IIT Kharagpur
19. <b>Electronics for Analog Signal Processing I</b> , Prof. K.Radhakrishna Rao, IIT Madras
20. <b>Electronics for Analog Signal Processing II</b> , Prof. K.Radhakrishna Rao, IIT Madras
21. <b>Estimation of Signals and Systems</b> , Prof. S. Mukhopadhyay, IIT Kharagpur
22. <b>High Speed Devices and Circuits</b> , Prof. K.N.Bhat, IIT Madras
23. <b>Low Power VLSI Circuits and Systems</b> , Prof. Ajit Pal, IIT Kharagpur
24. <b>MEMS and Microsystems</b> , Prof. Santiram Kal, IIT Kharagpur
25. <b>Microprocessors and Microcontrollers</b> , Prof. Ajit Pal, IIT Kharagpur
26. <b>Networks and Systems</b> , Prof. V.G.K.Murti, IIT Madras
27. <b>Neural Networks and Applications</b> , Prof. S.Sengupta, IIT Kharagpur
28. <b>Pattern Recognition</b> , Prof. P.S. Sastry, IISc Bangalore
29. <b>Real Time Systems</b> , Prof. Rajib Mall, IIT Kharagpur
30. <b>RF Integrated Circuits</b> , Prof. Shouribrata Chatterjee, IIT Delhi
31. <b>Semiconductor Device Modeling</b> , Prof. S. Karmalkar, IIT Madras
32. <b>Solid State Devices (IIT Madras)</b> , Prof. S. Karmalkar, IIT Madras
33. <b>Transmission Lines and EM Waves</b> , Prof. R.K. Shevgaonkar, IIT Bombay
34. <b>VLSI Broadband Communication Circuits</b> , Prof. Nagendra Krishnapura, IIT Madras
35. <b>VLSI Circuits</b> , Prof. S.Srinivasan, IIT Madras
36. <b>VLSI Data Conversion Circuits</b> , Prof. Shanthi Pavan, IIT Madras
37. <b>VLSI Device Modeling(Circuits and Systems)</b> , Prof. SK.Lahiri, IIT Kharagpur
38. <b>VLSI Technology</b> , Prof. Dr. Nandita Dasgupta, IIT Madras
39. <b>VLSI Technology I</b> , Prof. S.Kal, IIT Kharagpur
40. <b>Wireless Communication</b> , Prof. Ranjan Bose, IIT Delhi

## **COMPUTER NETWORKING**

1. <b>Broadband Networks: Concepts and Technology</b> , Prof. Abhay Karandikar, IIT Bombay
2. <b>Computer Networks</b> , Prof. Sujoy Ghosh, IIT Kharagpur
3. <b>Data Communication</b> , Prof. Ajit Pal, IIT Kharagpur

## **AEROSPACE & ASTRONOMY**

1. <b>Acoustic Instabilities in Aerospace Propulsion</b> , Prof. R.I. Sujith, IIT Madras
2. <b>Advanced Control System Design</b> , Prof. Radhakant Padhi, IISc Bangalore
3. <b>Aero elasticity</b> , Prof. C. Venkatesan, IIT Kanpur
4. <b>Flight Dynamics II (Stability)</b> , Prof. Nandan Kumar Sinha, IIT Madras
5. <b>Foundation of Scientific Computing</b> , Prof. T.K.Sengupta, IIT Kharagpur
6. <b>Gas Dynamics</b> , Prof. T.M. Muruganandam, IIT Madras
7. <b>High Speed Aero Dynamics</b> , Prof. K.P. Sinhamahapatra, IIT Kharagpur
8. <b>Introduction to Aerodynamics</b> , Prof. K.P. Sinhamahapatra, IIT Kharagpur
9. <b>Introduction to Aerospace Propulsion</b> , Prof. Bhaskar Roy, IIT Bombay
10. <b>Introduction to Helicopter Aerodynamics and Dynamics</b> , Prof. C. Venkatesan, IIT Kanpur
11. <b>Jet Aircraft Propulsion</b> , Prof. Bhaskar Roy, IIT Bombay
12. <b>Optimal Control, Guidance and Estimation</b> , Prof. Radhakant Padhi, IISc Bangalore
13. <b>Space Flight Mechanics</b> , Prof. Manoranjan Sinha, IIT Kharagpur
14. <b>Turbomachinery Aerodynamics</b> , Prof. Bhaskar Roy, IIT Bombay

## **BIO-TECHNOLOGY**

1. <b>Analytical Technologies in Biotechnology</b> , Prof. Ashwani K Sharma, IIT Roorkee
2. <b>BioChemistry</b> , Prof. S.Dasgupta, IIT Kharagpur
3. <b>Biomathematics</b> , Prof. Ranjith Padinhateeri, IIT Bombay
4. <b>Downstream Processing</b> , Prof. Mukesh Doble, IIT Madras
5. <b>Enzyme Science and Engineering</b> , Prof. Subhash Chand, IIT Delhi
6. <b>Thermodynamics</b> , Prof. G.K. Suraishkumar, IIT Madras

## **BUSINESS, MANAGEMENT & ENTREPRENEURSHIP**

1. <b>Applied Multivariate Statistical Modeling</b> , Prof. J Maiti, IIT Kharagpur
2. <b>Concept of Management and Evolution of Management thought</b> , Prof. K.B. Akhilesh, IISc Bangalore
3. <b>Econometric Modelling</b> , Prof. Rudra P. Pradhan, IIT Kharagpur
4. <b>Human Resource Management</b> , Prof. Kalyan Chakravarti, IIT Kharagpur
5. <b>Infrastructure Finance</b> , Prof. A. Thillai Rajan, IIT Madras
6. <b>International Business Communication</b> , Prof. A. Malic, IIT Kharagpur
7. <b>Management Information System</b> , Prof. Biswajit Mahanty, IIT Kharagpur
8. <b>Management Science</b> , Prof. Anuradha Sharma, IIT Delhi

9. <b>Managerial Economics</b> , Prof. Trupti Mishra, IIT Bombay
10. <b>Manufacturing Systems Management</b> , Prof. G. Srinivasan, IIT Madras
11. <b>Operations and Supply Chain Management</b> , Prof. G. Srinivasan, IIT Madras
12. <b>Organisation Management</b> , Prof. Vinayshil Gautam, IIT Delhi
13. <b>Organisation of Engineering Systems and Human Resources Management</b> , Prof. Vinayshil Gautam, IIT Delhi
14. <b>Security Analysis and Portfolio Management</b> , Prof. J. Mahakud, IIT Kharagpur
15. <b>Six Sigma</b> , Prof. T. P. Bagchi, IIT Kharagpur
16. <b>Strategic Management</b> , Prof. R. Srinivasan, IISc Bangalore
17. <b>Strategic Management I</b> , Prof. K.Chakravarti, IIT Kharagpur
18. <b>Strategic Marketing Contemporary Issues</b> , Prof. Jayanta Chatterjee, IIT Kanpur

## **MATHEMATICS (MATHS)**

1. <b>A Basic Course in Real Analysis</b> , Prof. P.D. Srivastava, IIT Kharagpur
2. <b>Advanced Engineering Mathematics</b> , Prof. P. Panigrahi, IIT Kharagpur
3. <b>Advanced Matrix Theory</b> , Prof. Vittal Rao, IISc Bangalore
4. <b>Applied Multivariate Analysis</b> , Prof. Amit Mitra, IIT Kanpur
5. <b>Calculus of Variations and Integral Equations</b> , Prof. D. Bahuguna, IIT Kanpur
6. <b>Complex Analysis</b> , Prof. P. A. S. Sree Krishna, IIT Guwahati
7. <b>Computational Techniques</b> , Prof. Niket Kaisare, IIT Madras
8. <b>Discrete Structures</b> , Prof. Kamala Krithivasan, IIT Madras
9. <b>Elementary Numerical Analysis</b> , Prof. Rekha P. Kulkarni, IIT Bombay
10. <b>Foundations of Optimization</b> , Prof. Joydeep Dutta, IIT Kanpur
11. <b>Functional Analysis</b> , Prof. P.D. Srivastava, IIT Kharagpur
12. <b>Linear programming and Extensions</b> , Prof. Prabha Sharma, IIT Kanpur
13. <b>Mathematical Logic</b> , Prof. Arindama Singh, IIT Madras
14. <b>Mathematics I</b> , Prof. Swagato K. Ray, IIT Kanpur
15. <b>Mathematics II</b> , Prof. Sunita Gakkhar, IIT Roorkee
16. <b>Mathematics III</b> , Prof. P.N. Agrawal, IIT Roorkee
17. <b>Measure and Integration</b> , Prof. Inder K Rana, IIT Bombay
18. <b>Numerical Methods and Computation</b> , Prof. S.R.K.Iyengar, IIT Delhi
19. <b>Probability and Random Processes</b> , Prof. Mrityunjy Chakraborty, IIT Kharagpur
20. <b>Probability and Statistics</b> , Prof. Somesh Kumar, IIT Kharagpur

21. **Real Analysis I**, Prof. S.H. Kulkarni, IIT Madras

22. **Regression Analysis**, Prof. Soumen Maity, IIT Kharagpur

## **PHYSICS & CHEMISTRY**

1. **Advance Analytical Course**, Prof. Padma Vankar, IIT Kanpur

2. **Applied Mechanics**, Prof. R.K.Mittal, IIT Delhi

3. **Biochemical Engineering**, Prof. Rintu Banerjee, IIT Kharagpur

4. **Chemical Reaction Engineering**, Prof. Jayant Modak, IISc Bangalore

5. **Classical Field Theory**, Prof. Suresh Govindarajan, IIT Madras

6. **Classical Physics**, Prof. V.Balakrishnan, IIT Madras

7. **Electromagnetic Theory**, Prof. D.K. Ghosh, IIT Bombay

8. **Electronics I**, Prof. D.C. Dube, IIT Delhi

9. **Engineering Chemistry I**, Prof. Mangala Sunder, IIT Madras

10. **Engineering Physics II**, Prof. V. Ravishankar, IIT Kanpur

11. **Eukaryotic Gene Expression**, Prof. P N RANGARAJAN, IISc Bangalore

12. **Fundamentals of Transport Processes**, Prof. V. Kumaran, IISc Bangalore

13. **Heat Transfer**, Prof. Alope Kumar Ghosal, IIT Guwahati

14. **Heterocyclic Chemistry**, Prof. D.R. Mal, IIT Kharagpur

15. **Heterogeneous Catalysis and Catalytic Processes**, Prof. K.K. Pant, IIT Delhi

16. **Instability and Patterning of Thin Polymer Films**, Prof. Rabibrata Mukherjee, IIT Kharagpur

17. **Introduction to Organometallic Chemistry**, Prof. A.G. Samuelson, IISc Bangalore

18. **Introductory Quantum Chemistry**, Prof. K.L. Sebastian, IISc Bangalore

19. **Mass Transfer**, Prof. Nishith Verma, IIT Kanpur

20. **Mathematics for Chemistry**, Prof. Madhav Ranganathan, IIT Kanpur

21. **Microscale Transport Processes**, Prof. Sunando DasGupta, IIT Kharagpur

22. **Modern Instrumental Methods of Analysis**, Prof. J.R. Mudakavi, IISc Bangalore

23. **Multiphase Flow**, Prof. P.K. Das, IIT Kharagpur

24. **Novel Separation Processes**, Prof. Sirshendu De, IIT Kharagpur

25. **Nuclear Physics Fundamentals and Application**, Prof. H.C.Verma, IIT Kanpur

26. **Organic Photochemistry and Pericyclic Reactions**, Prof. N.D. Pradeep Singh, IIT Kanpur

27. **Particle Characterization**, Prof. R. Nagarajan, IIT Madras

28. **Physics I: Oscillations and Waves**, Prof. S. Bharadwaj, IIT Kharagpur

29. **Plantwide Control of Chemical Processes**, Prof. Nitin Kaistha, IIT Kanpur

30. <b>Plasma Physics: Fundamentals and Applications</b> , Prof. V.K. Tripathi, IIT Delhi
31. <b>Polymer Chemistry</b> , Prof. D. Dhara, IIT Kharagpur
32. <b>Process Control and Instrumentation</b> , Prof. A.K.Jana, IIT Kharagpur
33. <b>Process Design Decisions and Project Economics</b> , Prof. V. S. Moholkar, IIT Guwahati
34. <b>Quantum Electronics</b> , Prof. K. Thyagarajan, IIT Delhi
35. <b>Quantum Field Theory</b> , Prof. Prasanta Tripathy, IIT Madras
36. <b>Quantum Mechanics and Applications</b> , Prof. Ajoy Ghatak, IIT Delhi
37. <b>Quantum Mechanics I</b> , Prof. S. Lakshmi Bala, IIT Madras
38. <b>Quantum Physics</b> , Prof. V.Balakrishnan, IIT Madras
39. <b>Rate Processes</b> , Prof. M.Halder, IIT Kharagpur
40. <b>Relativistic Quantum Mechanics</b> , Prof. Apoorva D Patel, IISc Bangalore
41. <b>Semiconductor Optoelectronics</b> , Prof. M. R. Shenoy, IIT Delhi
42. <b>Special Topics in Atomic Physics</b> , Prof. P.C. Deshmukh, IIT Madras
43. <b>Special Topics in Classical Mechanics</b> , Prof. P.C. Deshmukh, IIT Madras

## **CIVIL ENGINEERING**

1. <b>Advanced Foundation Engineering</b> , Prof. Kousik Deb, IIT Kharagpur
2. <b>Advanced Hydraulics</b> , Prof. Suresh A Kartha, IIT Guwahati
3. <b>Advanced Hydrology</b> , Prof. Ashu Jain, IIT Kanpur
4. <b>Advanced Structural Analysis</b> , Prof. Devdas Menon, IIT Madras
5. <b>Building Materials and Construction</b> , Prof. B. Bhattacharjee, IIT Delhi
6. <b>Concrete Technology</b> , Prof. B. Bhattacharjee, IIT Delhi
7. <b>Design of Reinforced Concrete Structures</b> , Prof. N. Dhang, IIT Kharagpur
8. <b>Design Of Steel Structures</b> , Prof. Damodar Maity, IIT Guwahati
9. <b>Engineering Geology</b> , Prof. Debasis Roy, IIT Kharagpur
10. <b>Environmental Air Pollution</b> , Prof. Mukesh Sharma, IIT Kanpur
11. <b>Finite Element Analysis I</b> , Prof. B.N. Rao, IIT Madras
12. <b>Fluid Mechanics</b> , Prof. T.I.Eldho, IIT Bombay
13. <b>Foundation Engineering</b> , Prof. N.K.Samadhiya, IIT Roorkee
14. <b>Geosynthetics and Reinforced Soil Structures</b> , Prof. K. Rajagopal, IIT Madras
15. <b>Geosynthetics Engineering : In Theory and Practice</b> , Prof. J. N. Mandal, IIT Bombay
16. <b>Geotechnical Measurements and Explorations</b> , Prof. Nihar Ranjan Patra, IIT Kanpur
17. <b>Hydraulics</b> , Prof. Arup Kumar Sarma, IIT Guwahati



18. <b>Introduction to Transportation Engineering</b> , Prof. Bhargab Maitra, IIT Kharagpur
19. <b>Mechanics of Solids</b> , Prof. M.S.Siva Kumar, IIT Madras
20. <b>Modern Surveying Techniques</b> , Prof. S.K.Ghosh, IIT Roorkee
21. <b>Numerical Methods in Civil Engineering</b> , Prof. Arghya Deb, IIT Kharagpur
22. <b>Performance of Marine Vehicles At Sea</b> , Prof. S. C. Misra, IIT Kharagpur
23. <b>Prestressed Concrete Structures</b> , Prof. A.K.Sengupta, IIT Madras
24. <b>Probability Methods in Civil Engineering</b> , Prof. Rajib Maity, IIT Kharagpur
25. <b>Soil Dynamics</b> , Prof. Deepankar Choudhury, IIT Bombay
26. <b>Soil Mechanics</b> , Prof. B.V.S. Viswanadham, IIT Bombay
27. <b>Stochastic Hydrology</b> , Prof. P. P. Mujumdar, IISc Bangalore
28. <b>Stochastic Structural Dynamics</b> , Prof. C.S. Manohar, IISc Bangalore
29. <b>Strength of Materials</b> , Prof. S.K.Bhattacharyya, IIT Kharagpur
30. <b>Structural Analysis II</b> , Prof. P. Banerjee, IIT Bombay
31. <b>Structural Dynamics</b> , Prof. P. Banerji, IIT Bombay
32. <b>Surveying</b> , Prof. Bharat Lohani, IIT Kanpur
33. <b>Transportation Engineering II</b> , Prof. Rajat Rastogi, IIT Roorkee
34. <b>Urban transportation planning</b> , Prof. V. Thamizh Arasan, IIT Madras
35. <b>Water and Wastewater Engineering</b> , Prof. B. S. Murty, IIT Madras
36. <b>Water Resources Engineering</b> , Prof. Rajesh Srivastava, IIT Kanpur
37. <b>Water Resources Systems:Modeling Techniques and Analysis</b> , Prof. P.P. Mujumdar, IISc Bangalore
38. <b>Watershed Management</b> , Prof. T.I. Eldho, IIT Bombay

## **ELECTRICAL ENGINEERING**

1. <b>Advanced 3G and 4G Wireless Mobile Communications</b> , Prof. Aditya K. Jagannatham, IIT Kanpur
2. <b>Advanced Electric Drives</b> , Prof. S.P. Das, IIT Kanpur
3. <b>An Introduction to Electronics System Packaging</b> , Prof. G.V. Mahesh, IISc Bangalore
4. <b>Analog ICs</b> , Prof. K. Radhakrishna Rao, IIT Madras
5. <b>Analog Integrated Circuit Design</b> , Prof. Nagendra Krishnapur, IIT Madras
6. <b>Basic Electrical Technology</b> , Prof. L.Umanand, IISc Bangalore
7. <b>Basic Electronics I</b> , Prof. R. V. Raja Kumar, IIT Kharagpur
8. <b>Chaos, Fractals and Dynamical Systems</b> , Prof. S.Banerjee, IIT Kharagpur

9. <b>Circuit Theory</b> , Prof. S.C.Dutta Roy, IIT Delhi
10. <b>Control Engineering</b> , Prof. S.D.Agashe, IIT Bombay
11. <b>Control Engineering I</b> , Prof. Madan Gopal, IIT Delhi
12. <b>Digital Circuits and Systems</b> , Prof. S. Srinivasan, IIT Madras
13. <b>Digital Signal Processing (IITKharagpur)</b> , Prof. T.K.Basu, IIT Kharagpur
14. <b>Dynamics of Physical System</b> , Prof. Soumitro Banerjee, IIT Kharagpur
15. <b>Electrical Machines – I</b> , Prof. Debaprasad Kasta, IIT Kharagpur
16. <b>Electromagnetic Fields</b> , Prof. Harishankar Ramachandran, IIT Madras
17. <b>Embedded Systems</b> , Prof. Santanu Chaudhary, IIT Delhi
18. <b>Energy Resources and Technology</b> , Prof. S.Banerjee, IIT Kharagpur
19. <b>Error Correcting Codes</b> , Prof. P. Vijay Kumar, IISc Bangalore
20. <b>High Voltage DC Transmission</b> , Prof. S.N.Singh, IIT Kanpur
21. <b>Illumination Engineering</b> , Prof. N.K.Kishore, IIT Kharagpur
22. <b>Industrial Automation and Control</b> , Prof. S. Mukhopadhyay, IIT Kharagpur
23. <b>Industrial Drives and Power Electronics</b> , Prof. K.Gopakumar, IISc Bangalore
24. <b>Industrial Instrumentation</b> , Prof. Alok Barua, IIT Kharagpur
25. <b>Information Theory and Coding</b> , Prof. S.N.Merchant, IIT Bombay
26. <b>Intelligent Systems and Control</b> , Prof. Laxmidhar Behera, IIT Kanpur
27. <b>Introduction to Finite Element Method</b> , Prof. R. Krishnakumar, IIT Madras
28. <b>MATLAB</b> , Prof. Routray, IIT Kharagpur
29. <b>Micro and Smart Systems</b> , Prof. K.N. Bhat, IISc Bangalore
30. <b>Networks Signals and Systems</b> , Prof. T.K.Basu, IIT Kharagpur
31. <b>Optimal Control</b> , Prof. Goshaidas Ray, IIT Kharagpur
32. <b>Power Electronics</b> , Prof. B.G. Fernandes, IIT Bombay
33. <b>Power System Dynamics</b> , Prof. M.L.Kothari, IIT Delhi
34. <b>Power System Dynamics and Control</b> , Prof. A.M. Kulkarni, IIT Bombay
35. <b>Power System Generation Transmission and Distribution</b> , Prof. D.P.Kothari, IIT Delhi
36. <b>Power System Operations and Control</b> , Prof. S.N.Singh, IIT Kanpur
37. <b>Power Systems Analysis</b> , Prof. A.K. Sinha, IIT Kharagpur
38. <b>Power Systems Operation and Control</b> , Prof. S.N.Singh, IIT Kanpur
39. <b>Pulse width Modulation for Power Electronic Converters</b> , Prof. G. Narayanan, IISc Bangalore

40. **Switched Mode Power Conversion**, Prof. V. Ramanarayanan, IISc Bangalore

## **MECHANICAL ENGINEERING**

1. **Advanced Finite Elements Analysis**, Prof. R.Krishnakumar, IIT Madras
2. **Advanced Gas Dynamics**, Prof. Rinku Mukherjee, IIT Madras
3. **Advanced Machining Processes**, Prof. Vijay K. Jain, IIT Kanpur
4. **Advanced Manufacturing Processes**, Prof. A.K. Sharma, IIT Roorkee
5. **Advanced Operations Research**, Prof. G.Srinivasan, IIT Madras
6. **Advanced Strength of Materials**, Prof. S.K. Maiti, IIT Bombay
7. **An Introduction to Explosions and Explosion Safety**, Prof. K. Ramamurthi, IIT Madras
8. **Applied Thermodynamics for Marine Systems**, Prof. P.K.Das, IIT Kharagpur
9. **Basic Thermodynamics**, Prof. S.K. Som, IIT Kharagpur
10. **Biomechanical systems**, Prof. Shantanu Bhattacharya, IIT Kanpur
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12. **Computer Aided Design and Manufacturing**, Prof. Anoop Chawla, IIT Delhi
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