

## Computer Science & Engineering ( AL & ML )

Sem – III

### Subject - Discrete Structures And GraphTheory

NOC:Discrete Structures Prof. Dipanwita Roychowdhury IIT Kharagpur –  
<https://nptel.ac.in/courses/106105192>

Discrete Mathematical Structures Prof. Kamala Krithivasan IIT Madras –  
<https://nptel.ac.in/courses/106106094>

Graph Theory Dr. L. Sunil Chandran IISc Bangalore –  
<https://nptel.ac.in/courses/106108054>

### Subject - Analysis Of Algorithm

NOC:Introduction to algorithms and analysis Prof. Sourav Mukhopadhyay IIT Kharagpur –  
<https://nptel.ac.in/courses/106105164>

NOC:Design and Analysis of Algorithms Prof. Madhavan Mukund IIT Madras –  
<https://nptel.ac.in/courses/106106131>

Design and Analysis of Algorithms Prof. Ajit A Diwan Prof. Sundar Viswanathan Prof. Abhiram G Ranade IIT Bombay –  
<https://nptel.ac.in/courses/106101060>

### Subject - Computer Organization And Architecture

NOC:Computer Architecture Prof. Smruti R.Sarangi IIT Delhi –  
<https://nptel.ac.in/courses/106102157>

NOC:Computer Architecture(Course sponsored by Aricent) Prof.Madhu Mutyam IIT Madras –  
<https://nptel.ac.in/courses/106106134>

Computer Architecture, IIT Delhi Prof. Anshul Kumar  
<https://nptel.ac.in/courses/106102062>

Computer Architecture, IIT Kanpur Dr. Mainak Chaudhuri  
<https://nptel.ac.in/courses/106104122>

NOC: Computer Architecture and Organization, IIT Kharagpur Prof. Indranil Sengupta, Prof. Kamalika Datta  
<https://nptel.ac.in/courses/106105163>

Computer Organization, IIT Madras Prof. S. Raman  
<https://nptel.ac.in/courses/106106092>

NOC: Computer Organization and Architecture, IIT Madras Prof. Kamakoti  
<https://nptel.ac.in/courses/106106166>

## Computer Science & Engineering ( AL & ML )

Sem – IV

### Subject – Computational Theory

Theory of Computation, IIT Kanpur Prof. Somenath Biswas

<https://nptel.ac.in/courses/106104028>

NOC: Theory of Computation, IIT Kanpur Prof. Raghunath Tewari

<https://nptel.ac.in/courses/106104148>

NOC: Theory of Computation, IIT Hyderabad Prof. Subrahmanyam Kalyanasundaram

<https://nptel.ac.in/courses/106106242>

### Subject – Database Management System

NOC:Introduction to Database Systems Prof. P.Sreenivasa Kumar IIT Madras –

<https://nptel.ac.in/courses/106106220>

NOC: Fundamentals of Database Systems, IIT Kanpur Prof. Arnab Bhattacharya

<https://nptel.ac.in/courses/106104135>

### Subject - Operating System

NOC:Operating System Fundamentals Prof. Santanu Chattopadhyay IIT Kharagpur -

<https://nptel.ac.in/courses/106105214>

NOC:Introduction to Operating Systems Prof. Chester Rebeiro IIT Madras -

<https://nptel.ac.in/courses/106106144>

Operating Systems Prof. Sorav Bansal IIT Delhi -

<https://nptel.ac.in/courses/106102132>

### Subject - Digital Marketing

NOC: Fundamentals of Digital Marketing, IIT Kharagpur Prof. Saini Das Prof. Atanu Ghosh

<https://nptel.ac.in/courses/110105920>

**Computer Science & Engineering ( AL & ML )**

**Sem – V**

**Subject - Computer Network**

**Computer Networks Prof. Sujoy Ghosh IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105081>**

**NOC:Advanced Computer Networks Prof. Sameer Kulkarni Prof. Neminath Hubballi IIT -**

**<https://nptel.ac.in/courses/106106243>**

**NOC:Computer Networks and Internet Protocol Prof. Sandip Chakraborty Prof. Soumya Kanti Ghosh IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105183>**

**Subject - Artificial Intelligence**

**NOC:An Introduction to Artificial Intelligence Prof. Mausam IIT Delhi -**

**<https://nptel.ac.in/courses/106102220>**

**NOC:Fundamentals Of Artificial Intelligence Prof. Shyamanta M. Hazarika IIT Guwahati -**

**<https://nptel.ac.in/courses/112103280>**

**Artificial Intelligence Prof. S. Sarkar Prof. Anupam Basu IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105077>**

**Artificial Intelligence Prof. P. Dasgupta IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105079>**

**Subject - Data Warehousing & Mining**

**NOC:Data Mining Prof. Pabitra Mitra IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105174>**

**Subject - Internet Of Things**

**NOC:Introduction to internet of things Prof. Sudip Misra IIT Kharagpur –**

**<https://nptel.ac.in/courses/106105166>**

**NOC:Design for internet of things Prof. T V Prabhakar IISc Bangalore -**

**<https://nptel.ac.in/courses/108108098>**

**NOC:Design for internet of things Prof. T V Prabhakar IISc Bangalore -**

**<https://nptel.ac.in/courses/108108179>**

**Computer Science & Engineering ( AL & ML )**

**Sem – VI**

**Subject – Data Analytics & Visualization**

**NOC:Introduction to Data analytics Dr. Balaraman Ravindran Prof. Nandan Sudarsanam IIT Madras –**

**<https://nptel.ac.in/courses/110106072>**

**NOC:Introduction to Data Analytics(Course sponsored by Aricent) Prof. Nandan Sudarsanam Dr. Balaraman Ravindran IIT Madras –**

**<https://nptel.ac.in/courses/110106064>**

**NOC: Advanced R Programming for Data Analytics in Business, IIT Kanpur Prof. Abhinava Tripathi**

**<https://nptel.ac.in/courses/110104513>**

**Subject - Cryptography And System Security**

**NOC:Foundations of Cryptography Prof. Ashish Choudhury IIT Bangalore –**

**<https://nptel.ac.in/courses/106106221>**

**NOC:Cryptography And Network Security Prof. Sourav Mukhopadhyay IIT Kharagpur –**

**<https://nptel.ac.in/courses/106105162>**

**Cryptography and Network Security Dr. Debdeep Mukhopadhyay IIT Kharagpur –**

**<https://nptel.ac.in/courses/106105031>**

**NOC:Introduction to Information Security I Prof. V. Kamakoti IIT Madras –**

**<https://nptel.ac.in/courses/106106141>**

**NOC: Information Security- II, IIT Madras Prof. Kamakoti**

**<https://nptel.ac.in/courses/106106141>**

**NOC: Information Security-3, IIT Madras Prof. Kamakoti Veezhinathan**

**<https://nptel.ac.in/courses/106106157>**

**NOC: Information Security - IV, IIT Madras Prof. V. Kamakoti, Prof. M J Shankar Raman, Prof. Vasan**

**<https://nptel.ac.in/courses/106106178>**

**Subject - Software Engineering And Project Management**

**NOC:Software Engineering Prof. Rajib Mall IIT Kharagpur -**

**<https://nptel.ac.in/courses/106105182>**

**Software Engineering Prof. Umesh Bellur Prof. N.L. Sarda Prof. Rushikesh K Joshi IIT Bombay**

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**<https://nptel.ac.in/courses/106101061>**

NOC: Software Project Management, IIT Kharagpur Prof. Rajib Mall, Prof. Durga Prasad Mohapatra

<https://nptel.ac.in/courses/106105218>

### **Subject – Machine Learning**

NOC:Machine Learning for Engineering and Science Applications Prof. Ganapathy Prof. Balaji Srinivasan IIT Madras –

<https://nptel.ac.in/courses/106106198>

NOC:Machine Learning,ML Prof. Fredrik Kilander Prof. Carl Gustaf Jansson IIT Madras –

<https://nptel.ac.in/courses/106106202>

NOC:Introduction to Machine Learning Prof. S. Sarkar IIT Kharagpur –

<https://nptel.ac.in/courses/106105152>

NOC:Introduction to Machine Learning Dr. Balaraman Ravindran IIT Madras –

<https://nptel.ac.in/courses/106106139>

### **Subject - High Performance Computing**

NOC:High Performance Computing for Scientists and Engineers Prof. Somnath Roy IIT Kharagpur –

<https://nptel.ac.in/courses/112105293>

High Performance Computing Prof. Mathew Jacob IISc Bangalore –

<https://nptel.ac.in/courses/106108055>

### **Subject - Distributed Computing**

NOC:Cloud Computing and Distributed Systems Dr.Rajiv Misra IIT Patna –

<https://nptel.ac.in/courses/106104182>

NOC: Distributed Systems, IIT Patna Prof. Rajiv Misra

<https://nptel.ac.in/courses/106106168>

### **Subject - Image & Video Processing**

Digital Image Processing Prof. P.K. Biswas IIT Kharagpur -

<https://nptel.ac.in/courses/117105135>

Digital Image Processing Prof. P.K. Biswas IIT Kharagpur -

<https://nptel.ac.in/courses/117105079>

**Computer Science & Engineering ( AL & ML )**  
**Sem - VII**  
**Subject - Deep Learning**

**NOC:Deep Learning Prof. P.K. Biswas IIT Kharagpur –**  
<https://nptel.ac.in/courses/106105215>

**NOC: Deep Learning - IIT Ropar, IIT Ropar Prof. Sudarshan Iyengar -**  
<https://nptel.ac.in/courses/106106184>

**NOC:Deep Learning - Part 2 Prof. Mitesh Khapra IIT Madras –**  
<https://nptel.ac.in/courses/106106201>

**NOC: Foundations of Deep Learning: Concepts and Applications, IISc Bangalore RV University Prof. Sriram Ganapathy Prof. Ashwini Kodipalli Prof. Baishali Garai**  
<https://nptel.ac.in/courses/106108840>

**Subject - Big Data Analytics**

**NOC:Big Data Computing Dr. Rajiv Misra IIT Patna –**  
<https://nptel.ac.in/courses/106104189>

**NOC: Statistical Foundation for Big Data Analysis, IIT Kharagpur Prof. Arindam Banerjee**  
<https://nptel.ac.in/courses/106105848>

**NOC: Algorithms for Big Data, IIT Madras Prof. John Augustine**  
<https://nptel.ac.in/courses/106106142>

**Subject - Natural Language Processing**

**Natural Language Processing, IIT Bombay Prof. Pushpak Bhattacharyya**  
<https://nptel.ac.in/courses/106101007>

**NOC: Natural Language Processing, IIT Kharagpur Prof. Pawan Goyal**  
<https://nptel.ac.in/courses/106105158>

**NOC:Applied Natural Language Processing Prof. Ramaseshan R IIT Madras –**  
<https://nptel.ac.in/courses/106106211>

**Subject - Neural Network & Fuzzy System**

**NOC:Fuzzy Logic and Neural Networks Prof. Dilip Kumar Pratihari IIT Kharagpur –**  
<https://nptel.ac.in/courses/127105006>

**Neural Networks and Applications, IIT Kharagpur Prof. Somnath Sengupta**  
<https://nptel.ac.in/courses/117105084>

**Subject - User Experience Design with VR**

**NOC:Interaction Design Prof.Abhishek Shrivastava IIT Guwahati –**  
<https://nptel.ac.in/courses/107103083>

**NOC:Virtual Reality Engineering Dr. M. Manivannan IIT Madras –**  
<https://nptel.ac.in/courses/121106013>

**Virtual Reality Prof Steven LaValle IIT Madras –**  
<https://nptel.ac.in/courses/106106138>

**NOC: Foundation for Virtual and Augmented Reality Systems, IIT Guwahati Prof Samit Bhattacharya -**  
<https://nptel.ac.in/courses/106103842>

### **Subject - Blockchain Technologies**

**NOC:Blockchain and its Applications Prof. Sandip Chakraborty Prof. Shamik Sural IIT Kharagpur -**  
<https://nptel.ac.in/courses/106105235>

**NOC:Introduction to Blockchain Technology and Applications Prof. Sandeep Shukla IIT Kanpur -**  
<https://nptel.ac.in/courses/106104220>

### **Subject - Game Theory for Data Science**

**NOC:Game Theory Prof.K.S. Mallikarjuna Rao IIT Bombay –**  
<https://nptel.ac.in/courses/110101133>

**NOC: Introduction To Game Theory And Mechanism Design, IIT Bombay Dr. Swaprava Nath**  
<https://nptel.ac.in/courses/106101237>

### **Subject - Reliability Engineering**

**NOC:Introduction to Reliability Engineering Prof. Neeraj Kumar Goyal IIT Kharagpur -**  
<https://nptel.ac.in/courses/127105234>

**NOC:Statistical learning for Reliability Analysis rof. Monalisa Sarma IIT Kharagpur -**  
<https://nptel.ac.in/courses/106105239>

### **Subject - Management Information System**

**NOC:Management Information System Prof. Kunal Kanti Ghosh, Prof. Saini Das, Prof. Surojit Mukherjee IIT Kharagpur -**  
<https://nptel.ac.in/courses/110105148>

**Management Information System Prof. Biswajit Mahanty IIT Kharagpur -**  
<https://nptel.ac.in/courses/122105022>

### **Subject - Design Of Experiments**

**NOC:Design and Analysis of Experiments Prof. Jhareswar Maiti IIT Kharagpur -**  
<https://nptel.ac.in/courses/110105087>

### **Subject - Operation Research**

**NOC:Introduction to Operations Research Prof. G. Srinivasan IIT Madras -**  
<https://nptel.ac.in/courses/110106062>

**Advanced Operations Research** Prof. G. Srinivasan IIT Madras -  
<https://nptel.ac.in/courses/110106062>

**Fundamentals of Operations Research** Prof. G. Srinivasan IIT Madras -  
<https://nptel.ac.in/courses/112106134>

**Subject - Cyber Security & Laws**

**NOC: Cyber Security and Privacy, IIT Madras Prof. Saji K Mathew -**  
<https://nptel.ac.in/courses/106106248>

**NOC: Internet Crimes and Cyber Security, NALSAR University of Law Prof. K.V.K. Santhy Prof. B Md Irfan -**  
<https://nptel.ac.in/courses/129106894>

**NOC:Foundations of Cyber Physical Systems** Prof. Soumyajit Dey IIT Kharagpur -  
<https://nptel.ac.in/courses/106105241>

**Computer Science & Engineering ( AL & ML )**

**Sem – VIII**

**Subject - Advanced Artificial Intelligence**

**NOC: An Introduction to Artificial Intelligence, IIT Delhi Prof. Mausam**  
<https://nptel.ac.in/courses/106102220>

**Artificial Intelligence, IIT Kharagpur Prof. Anupam Basu, Prof. S. Sarkar**  
<https://nptel.ac.in/courses/106105077>

**NOC: Fundamentals of Artificial Intelligence, IIT Guwahati Prof. Shyamanta M. Hazarika**  
<https://nptel.ac.in/courses/112103280>

**NOC:Artificial Intelligence Search Methods For Problem Solving Prof. Deepak Khemani IIT Madras –**  
<https://nptel.ac.in/courses/106106126>

**Subject – AI For For Financial & Banking Application**

**NOC: Artificial Intelligence for Economics, IIT Kharagpur Prof. Adway Mitra, Prof. Dripto Bakshi, Prof. Palash Dey**  
<https://nptel.ac.in/courses/106105470>

**Subject - Quantum Computing**

**NOC:Quantum Computing Prof. Debabrata Goswami IIT Kanpur –**  
<https://nptel.ac.in/courses/104104082>

**NOC:Quantum Information and Computing Prof.Dipan Ghosh IIT Bombay –**  
<https://nptel.ac.in/courses/115101092>

**Subject - Reinforcement Learning**

**NOC:Reinforcement Learning Dr. B. Ravindran IIT Madras -**  
<https://nptel.ac.in/courses/106106143>

**Subject - Social Media Analytic**

**NOC:Privacy and Security in Online Social Media Prof. Ponnurangam Kumaraguru IIIT Delhi -**  
<https://nptel.ac.in/courses/106106146>

**Subject - Project Management**

**Project and Production Management Prof. Arun Kanda IIT Delhi -**  
<https://nptel.ac.in/courses/112102106>

**Subject - Entrepreneurship Development & Management**

**NOC:Entrepreneurship Prof. C Bhaktavatsala Rao IIT Madras -**  
<https://nptel.ac.in/courses/110106141>

**NOC:Innovation, Business Models and Entrepreneurship** Prof. Vinay Sharma Prof. Rajat Agrawal IIT Roorkee -  
<https://nptel.ac.in/courses/110107094>

**Economics / Management / Entrepreneurship** Prof. P.K.J. Mohapatra IIT Kharagpur -  
<https://nptel.ac.in/courses/110105067>

**Subject - Human Resource Management**

**NOC:Advances in Strategic Human Resource Management** Prof. Ashish Pandey IIT Bombay -  
<https://nptel.ac.in/courses/110101164>

**NOC:Principles of Human Resource Management** Prof. A Malik IIT Kharagpur -  
<https://nptel.ac.in/courses/110105069>

**Human Resource Management-I, IIT Kharagpur** Prof. Kalyan Chakravarti  
<https://nptel.ac.in/courses/122105020>

**Subject - Research Methodology**

**NOC: Research Methodology, IIT Madras** Prof. Edamana Prasad, Prof. Prathap Haridoss  
<https://nptel.ac.in/courses/121106007>

**Subject – IPR & Patenting**

**NOC: Intellectual Property Rights and Competition Law, IIT Kharagpur** Prof. K. D. Raju, Prof. Niharika Sahoo Bhattacharya  
<https://nptel.ac.in/courses/110105139>

**NOC:Intellectual Property** Prof. Feroze Ali IIT Madras -  
<https://nptel.ac.in/courses/109106137>

**NOC:Introduction on Intellectual Property to Engineers and Technologists** Prof. Tapas Kumar Bandyopadhyay IIT Kharagpur -  
<https://nptel.ac.in/courses/109105112>

**Subject - Digital Business Management**

**NOC:The Future of Manufacturing Business: Role of Digital Technologies** Prof. R. K. Amit Prof. U. Chandrasekhar IIT Madras -  
<https://nptel.ac.in/courses/110106146>