MESSAGE

I am extremely pleased to note that AICTE has taken strong measures to improve quality of technical education in the country. AICTE prepared the model curriculum of various disciplines of Undergraduate & Postgraduate degree courses in Engineering & Technology which was released on 24\textsuperscript{th} January, 2018. I am happy to note that this is being adopted by the Institutions / Universities in the country from the academic year 2018-19 onwards. As a step forward, it is commendable that AICTE has done an impressive task of compiling 'List of suggested books of Indian Authors' for Undergraduate & Postgraduate degree courses in Engineering & Technology for helping students and teachers.

I congratulate the Chairman and his team at AICTE for such a thoughtful initiative of promoting Indian books by our own Indian Authors. It is a much deserved recognition for our Indian Authors which will definitely accelerate and encourage Indian Authors to write quality books. Our students should take advantage of wealth of information about books.

Looking forward towards more such quality initiatives by AICTE and best wishes for future endeavours.

(PRAKASH JAVADEKAR)
AICTE RECOMMENDED
LIST OF SUGGESTED BOOKS OF INDIAN AUTHORS & PUBLISHERS

FOR

UNDERGRADUATE DEGREE COURSES IN

ENGINEERING & TECHNOLOGY
[FEBRUARY 2018]

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Marg, Vasant Kunj, New Delhi 110 070
www.aicte-india.org

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
FIRST YEAR
UNDERGRADUATE DEGREE COURSES

BASIC SCIENCE COURSES

List of Recommended Books:

BSC101 – Physics
1. Engineering Physics, Malik and Singh, Tata Mc Graw Hill
2. Engineering Physics, Naidu, Pearson
3. Mechanics, Mathur, S.Chand Publishing
5. Classical Mechanics, G. Aruldhas, PHI
6. Engineering Physics, Gupta & Gaur, Dhanpat Rai
7. Quantum Mechanics, Ajay Ghatak S. Lokanathan, Trinity
8. Quantum Mechanics: A Text Book for undergraduates, Mahesh C Jain, TMH
9. Text Book of Quantum Mechanics, M. Mathews &Venkatesan, TMH
11. A Text Book of Optics, Avadhanulu, S. Chand
12. Modern Physics for Engineers, S.P. Taneja, R. Chand
13. The Physics of waves and Oscillations, N.K. Bajaj, TMH

BSC102 – Chemistry-I
3. Essentials of Physical Chemistry, Bahl&Tuli, S.Chand Publishing
4. Applied Chemistry, Sunita Rattan, Kataria
5. Engineering Chemistry, Baskar, Wiley

BSC103 – Mathematics – I
4. Differential Calculus Shanti Narayan & Dr. P.K. Mittal, S.Chand Publishing
5. A Course & Mathematical Analysis (ISBN: 9788121904728), Narayan &Mittal, S.Chand
BSC103 – Mathematics – II

ENGINEERING SCIENCE COURSES

List of Recommended Books:

ESC101 – Basic Electrical Engineering
3. Basic Electrical Engineering, Mittle & Mittal, Tata McGraw Hill

ESC102 – Engineering Graphics and Design
2. Engineering Drawing, ND Bhat, Charotar Publishing House
4. Textbook on Engineering Drawing, Narayana, Scitech Publishers
5. Engineering Graphics, Agarwal & Agarwal, TMH

ESC103 – Programming for Problem Solving
3. Let us C, Yashavant P. Kanetkar, BBP Publications, Delhi

HUMANITIES & SOCIAL SCIENCES

List of Recommended Books:

ESC104- Workshop Manufacturing Practices
1. Basic Manufacturing Process, Mehta & Gaira, Viva Books
2. Elements of Workshop Technology, Hajra & Choudhary, Media Promotors
4. Manufacturing Technology, Vol.1,2 and 3, PN Rao, TMH

HSMC101 – English
1. Technical Communication, Meenakshi Raman & Sangeeta Sharma, Oxford University Press
2. Effective Communication Skills, Kulbushan Kumar, Khanna Publishing House, Delhi
3. Communication Skills, Pushplata, Sanjay Kumar, Oxford University Press
CIVIL ENGINEERING

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

ESC202 – Basic Electronics
1. Basic Electronics, Santiram Kal, Prentice Hall
2. Basic Electronics, BL Thareja, S.Chand Publishing
3. All-in-One Electronics Simplified, A.K. Maini, Khanna Book Publishing

ESC109 – Biology for Engineers
1. Biology for Engineers (ISBN: 9781121439931), TMH

ESC203 – Computer Aided Civil Engineering Drawing
1. Civil Engineering Drawing, Sharma & Gurucharan Singh, Standard Publishers
2. A Course in Civil Engineering Drawing, Sikka, S.K. Kataria & Sons

ESC205 – Engineering Mechanics
2. Engineering Mechanics, R. S. Khurmi, S.Chand Publishing

ESC212 – Energy Science & Engineering
1. Energy Technology, OP Gupta, Khanna Book Publishing Co. (P) Ltd., Delhi
2. Energy Engineering & Management, Chakrabarti A, PHI

BSC225 – Life Science
1. Life Sciences, Vol-I, II, Pranav Kumar, Pathfinder Publication

BSC201 – Mathematics – III

HSMC251 – Introduction to Civil Engineering
1. Basic Civil Engineering, Palanichamy, McGraw Hill
2. Basic Civil Engineering, Satheesh Gopi, Pearson Publishers
SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

ESC209 – Mechanical Engineering
3. Basic Mechanical Engineering, Pravin Kumar, Pearson

PCC-CE201 – Instrumentation & Sensor Technologies for Civil Engineering Applications
1. Electronics Measurements & Instrumentation, J.G. Joshi, Khanna Publishing House
2. A Course in Electronics Measurements and Instrumentation, A.K. Sahwney, Dhanpat Rai

PCC-CE202 – Engineering Geology
2. Engineering Geology for Civil Engineers, Varghese P.C., PHI
3. Engineering and General Geology, Parbin Singh, SK Kataria & Sons
4. Engineering Geology, Subinoy Gangopadhyay, Oxford University

PCC-CE203 – Disaster Preparedness & Planning
2. Disaster Management, Ghosh G.K., APH Publishing Corporation
3. Handbook of Disaster Management, Singh B.K., Rajat Publication
4. Disaster Management in India, A.K. Singh, New Royal Book Company

PCC-CE204 – Introduction to Fluid Mechanics
1. Fluid Mechanics, Sadhu Singh, Khanna Books, Delhi
2. Fluid Mechanics, RK Bansal, Laxmi Publications
3. Fluid Mechanics, Modi & Seth, Standard Publishers

PCC-CE205 – Introduction to Solid Mechanics

PCC-CE206 – Surveying & Geomatics
1. Advanced Surveying, Madhu & Gobi, Pearson India
2. Geomatics Engineering, Arora & Badjatia, Nem Chand & Co.

PCC-CE206 – Materials, Testing & Evaluation
MC-CE207 – Management – I (Organizational Behaviour)
1. A Textbook of Organizational Behaviour, CB Gupta, S.Chand Publications
2. Organizational Behaviour, LM Prasad, Sutan Chand and Sons

SEMESTER – V (THIRD YEAR)

List of Recommended Books:

PCC-CE301 – Mechanics of Materials
1. Structural Analysis, R. Agor, Khanna Publishing House

PCC-CE302 – Hydraulic Engineering
1. Fluid Mechanics & Hydraulic Machines, SS Rattan, Khanna Publishing House
3. Fluid Mechanics, Dr K Subramanya, TMH
4. Fluid Mechanics and Machinery, CSP Ojha, R Berndtsson & P.N. Chandramouli, Oxford University
5. Fluid Machinery, Sadhu Singh, Khanna Publishing House, Delhi

PCC-CE303 – Structural Engineering
2. Prestressed Concrete, Srikant B. Vanakudre, Khanna Publishing House
3. Design of Prestressed Concrete, Krishnan Raju, Tata McGraw Hill
4. Design of Steel Structures, N. Subramanian, Oxford University Press

PCC-CE304 – Geotechnical Engineering
1. Principles of Geotechnical Engineering, Braja Das, Cengage
2. Basic and applied Soil Mechanics, Rajan & Rao, New Age International Publishers

PCC-CE305 – Hydrology & Water Resources Engineering
1. Engineering Hydrology, Subramanayan, McGraw Hill

PCC-CE306 – Environmental Engineering
2. Basic Environmental Engineering, R.C. Gaur, Newage Publications

PCC-CE307 – Transportation Engineering
2. Principles of Transportation Engineering, Chakrobarty, PHI Learning
4. Principles of Transportation Engineering, Partha Chakraborty, PHI Learning

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
HSMC255 – Professional Practice, Law & Ethics
2. Professional Ethics and Human Values, Premvir Kapoor, Khanna Book Publishing

MC-1 – Constitution of India
1. Introduction to Constitution of India, D.D. Basu, Lexis Nexus
2. The Constitution of India, PM Bhakshi, Universal Law

SEMESTER – VI (THIRD YEAR)

List of Recommended Books:

PCC-CE308 – Construction Engineering & Management
2. Construction Project Management, Jha, Pearson
3. Building Construction, Varghese PC, Prentice Hall India

PCC-CE309 – Engineering Economics, Estimation & Costing
1. Estimating and Costing in Civil Engineering, BN Dutta, UBS Publishers
2. Estimating, Costing Specifications & Valuation, M Chakraborty
3. Handbook of Construction Management, Joy PK, Macmillian

List of Some Other Useful Books:
2. Air Pollution Control Engineering, Keshav Kant, Khanna Publishing House
3. Design of Bridge Structures, T.R. Jagadeesh & M.A. Jayaram, Phi
4. Project Management with CPM /PERT, Punmia, Laxmi Publications
5. Introductory Methods of Numerical Analysis, Sashtry, PHI
7. Theory of Structures, Punmia, Laxmi Publications
13. Airport Engineering, Rangwala, Charotar Publications
ELECTRICAL ENGINEERING

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

PCC-EE01 – Electrical Circuit Analysis
1. Networks and Systems, Asfaq Hussain, Khanna Publishing House, Delhi
2. Networks and systems, D. Roy Choudhary, New Age International Publishers

PCC-EE02 – Analog Electronics
1. Analog Electronics, L.K.Maheshwari, Laxmi Publications
3. Analog Electronics, I.G.Nagrath, PHI

PCC-EE04 – Electrical Machines - I
2. Electrical Machines, Kothari & Nagrath, TMH
3. Electrical Machines, Mehta & Mehta, S.Chand Publications

ESC201 – Engineering Mechanics
2. Engineering Mechanics, R.S. Khurmi, S.Chand Publishing

SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

PCC-EE07 – Digital Electronics
1. Digital Electronics, A. Anand Kumar, PHI
2. Modern Digital Electronics, R.P. Jain, TMH
3. Digital Electronics, R.Anand Khanna Publishing House

PCC-EE09 – Electrical Machines - II
2. The Performance & Design of Alternating Current Machines, Say, CBS Publishers

PCC-EE11 – Power Electronics
2. Power Electronics, V.R.Moorthi, Oxford University Press
3. Power Electronics, Muhammad H. Rashid, Pearson
AICTE Recommended Books for Undergraduate Degree Courses as per Model Curriculum 2018

PCC-EE13 – Signals and Systems
1. Signals and Systems, A. Anand Kumar, Phi
3. Signals and Systems, Tarun Rawat, Oxford University Press
5. Signals and Systems, J. Nagrath, S. N. Sharan, R. Ranjan, S. Kumar, TMH

BSC201 – Mathematics - III

SEMESTER – V (THIRD YEAR)
List of Recommended Books:

PCC-EE14 – Power Systems – I
1. Modern Power System Analysis, Kothari Nagrath, McGraw Hill Education
2. Power System Operation and Control, S. Sivanagaraju & G. Sreenivasan, Pearson

PCC-EE16 – Control Systems
1. Control System Engineering, Nagrath & Gopal, Newage Publishers

PCC-EE17 – Microprocessors
1. Microprocessors, Ramesh Gaonkar, Penram Publications
2. Advanced Microprocessors and Peripherals, Burchandi, TMH
3. Advanced Microprocessors, AK Gautam, Khanna Publishing House

SEMESTER – VI (THIRD YEAR)
List of Recommended Books:

PCC-EE20 – Power Systems – II
2. Power System Operation and Control, Sivanagaraju & Sreenivasan, Pearson

List of Recommended Books for Elective Courses:
2. Electrical Power Generation, Transmission and distribution, Singh, PHI
3. Electrical Power Generation, Tanmoy Deb, Khanna Publishers
5. Introduction to Fuzzy Logic using MATLAB, S. N. Sivanandam, S. Sumati & S. N. Deepa, Springer
6. High Voltage Engineering, C.L. Wadhwa, Newage Publishers
7. Introduction to Neural Networks using MATLAB, Sivanandam, TMH

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
MECHANICAL ENGINEERING

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

BSC201 – Physics -II
1. Engineering Physics, Garg & Singh
2. Mechanics, Mathur, S.Chand Publishing
3. Classical Mechanics, Upadhyaya, Himalaya Publishing House
4. Classical Mechanics, G. Aruldhas, PHI
5. Engineering Physics, Gupta & Gaur, Dhanpat Rai
6. Quantum Mechanics, Ajay Ghatak S. Lokanathan, Trinity
7. Quantum Mechanics: A Text Book for undergraduates, Mahesh C Jain, TMH
8. A text Book of Quantum Mechanics, M. Mathews & K. Venkatesan, TMH
10. Fundamentals of Electromagnetic Theory, Khunita, PHI
11. A Text Book of Optics, Avadhanulu, S. Chand
12. Optics, Ajoy Ghatak, TMH
14. The Physics of waves and Oscillations, N.K. Bajaj, TMH

BSC202 – Mathematics - III

ESC201 – Basic Electronics Engineering
1. Basic Electronics, Santiram Kal, Printice Hall
2. Basic Electronics, B.L. Thareja, S.Chand Publishing
3. Basic Electronics, S. Biswas, Khanna Publications

ESC202 – Engineering Mechanics
2. Engineering Mechanics, R.S. Khurmi, S.Chand Publishing

PCC-ME201– Thermodynamics
SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

PCC-ME202– Applied Thermodynamics
2. Basic and Applied Thermodynamics, PK Nag, Tata McGraw Hill

PCC-ME203– Fluid Mechanics and Fluid Machines
1. Fluid Mechanics, Sadhu Singh, Khanna Publishing House, Delhi
2. Fluid Mechanics, Modi & Seth, Standard Publishers

PCC-ME204– Strength of Materials

PCC-ME205– Materials Engineering
1. Engineering Materials Properties and Selection, Budinski and Budinski, PHI
2. Material Science & Engineering, R. Balasubhramanium, Wiley India

MC - II– Environmental Science
1. Textbook of Environmental Studies, Erach Bharucha, University Press
2. Environmental Studies, MP Poonia & SC Sharma, Khanna Publishing House
3. Environmental Studies, Rajagopalan, Oxford University Press

SEMESTER – V (THIRD YEAR)

List of Recommended Books:

PCC-ME301– Heat Transfer
2. Computational Heat Transfer and Fluid Flow, MurliDhar & Sunder Rajan, Narosa

PCC-ME302– Solid Mechanics

PCC-ME304– Kinematics & Theory of Machines
1. Theory of Machines, SS Rattan, Tata McGraw Hill
2. Kinematics & Theory of Machines, Sadhu Singh, Pearson
SEMESTER – VI (THIRD YEAR)

List of Recommended Books:

PCC-ME307– Manufacturing Technology
1. Manufacturing Technology, Vol. 1, 2, 3, PN Rao, TMH
3. Production and Operations Management, S.N.Chary, TMH

PCC-ME308– Design of Machine Elements
3. Design Data Book, Mahadevan, CBS Publishers & Distributors

SEMESTER – VII (FOURTH YEAR)

List of Recommended Books:

PCC-ME401– Automation in Manufacturing
1. Modern Machining Process, Pandey and Shan, TMH

List of Recommended Books for Other Courses:

Mechatronics
1. A Textbook of Mechatronics, RK Raput, S.Chand Publishing
3. Introduction to Mechatronics, Kuttan, Oxford University

Finite Element Analysis
1. A Text Book of Finite Element Analysis, Seshu, Phi
2. The Finite Element Methods in Engineering, SS Rao, Butterworth
3. An Introduction to Finite Element Methods, J Reddy, Tata McGraw Hill

Power Plant Engineering
1. Power Plant Engineering, P.K. Nag, TMH

Refrigeration and Air Conditioning
1. Refrigeration and Air Conditioning, C.P. Arora, TMH
2. Refrigeration and Air Conditioning, Sadhu Singh, Khanna Publishing House
3. A Course in Refrigeration & Air Conditioning, Domkundwar, Dhanpat Rai

Machine Drawing
1. Machine Drawing, PS Gill, Katsons
Gas Turbines
1. Gas Turbines, Ganeshan, Tata McGraw Hill
2. Internal Combustion Engines, Mathur & Sharma, Dhanpat Rai
3. Steam, Gas Turbine and Power Plant Engineering, Yadav, CPH, Allahabad

Total Quality Management
1. Total Quality Management, Poonia & Sharma, Khanna Publishing House
2. Total Quality Management, Gopal, PHI

Engineering Management
2. Industrial Engineering & Operations Management, SK Sharma

Automobile Engineering
1. Automotive Engineering, Kirpal Singh, Standard Publishers
3. Automotive Electricals and Electronics, A.K. Babu, Khanna Publishing House

Reliability Engineering
1. Reliability Engineering, E. Balaguruswamy, Tata McGaw Hill
2. Reliability Engineering, L.S. Srinath, Affliated East-West Press

List of Some Other Useful Books:
1. Robotics and Control, Mittal & Nagrath, Tata McGraw Hill
2. Robotics Technology, Satyarajan Deb, TMH
5. Principles and Practice of Management, Prasad, L.M, Sultan Chand
6. Mechanical Vibrations, SS Rao, Pearson
8. Transducers and Instrumentation, V.S. Murthy, PHI
9. Transducers and Instrumentation, Nakra & C.Houdhary, TMH
10. Fundamentals of Industrial Drives, Sarkar, PHI
COMPUTER SCIENCE ENGINEERING

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

ESC201 – Analog Electronic Circuits
1. Analog Electronics, L.K. Maheshwari, Laxmi Publications
3. Analog Electronics, I.G. Nagrath, PHI

PCC-CS301 – Data Structures & Algorithms
1. Fundamentals of Data Structures, Sartaj Sahni, University Press
2. Data Structures, RS Salaria, Khanna Publishing House
4. Expert Data Structures with C++, RB Patel, Khanna Publications

ESC302 – Digital Electronics
1. Digital Electronics, A. Anand Kumar, PHI
2. Modern Digital Electronics, R.P. Jain, TMH
3. Digital Electronics, Rishabh Anand, Khanna Publishing House

BSC301 – Mathematics – III

SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

PCC-CS401 – Discrete Mathematics

PCC-CS402 – Computer Organization & Architecture
1. Computer Fundamentals Architecture and Organization, B. Ram, New Age International
2. Computer Organization & Architecture, Rajaraman, PHI Learning

PCC-CS403 – Operating Systems
1. Operating Systems, Ekta Walia, Khanna Publishing House, Delhi

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
PCC-CS404 – Design & Analysis of Algorithms

HSMC401 – Management – I
1. A Textbook of Organizational Behaviour, CB Gupta, S.Chand Publications
2. Organizational Behaviour, LM Prasad, Sultan Chand and Sons

MC – Environmental Sciences
1. Textbook of Environmental Studies, Erach Bharucha, University Press
2. Environmental Studies, MP Poonia & SC Sharma, Khanna Publishing House
3. Environmental Studies, Rajagopalan, Oxford University Press

SEMESTER – V (THIRD YEAR)

List of Recommended Books:

ESC501 – Signals and Systems
1. Signals and Systems, A. Anand Kumar, Phi
2. Signals and Systems, Tarun Rawat, Oxford University Press
5. Signals and Systems, J. Nagrath, S. N. Sharan, R. Ranjan, S. Kumar, TMH

PCC-CS501- Database Management Systems
1. Fundamental of Database Systems, E. Ramez and Navathe, Pearson

PCC-CS502 - Formal Language & Automata Theory
1. Theory of Computer Science: Automata, Languages and Computation, Mishra, Phi

PCC-CS503 - Object Oriented Programming
1. Object Oriented Programming with C++, Balaguruswamy, TMH
3. Programming with Java, Balaguruswamy, TMH
4. Object Oriented Programming in C++ and Java, D.Samantha, PHI
5. Internet and Java Programming, Tanweer Alam, Khanna Publishing House

MC- Constitution of India
1. Introduction to Constitution of India, D.D. Basu, Lexis Nexus
2. The Constitution of India, PM Bhakshi, Universal Law
SEMESTER – VI (THIRD YEAR)

List of Recommended Books:

PCC-CS602 - Computer Networks
1. Computer Networks, M. Dave, Cengage
2. An Engineering Approach to Computer Networking, Keshav, Pearson
3. An Integrated Approach to Computer Networks, Bhavneet Sidhu, Khanna Publications
4. Telecommunication Switching System and Networks, Viswanathan, PHI

List of Recommended books for Additional Courses:

Graph Theory
1. Graph Theory, Deo and Narsingh, PHI Publications
2. Combinatorics & Graph Theory, Singh, Khanna Publishing House

Software Engineering
1. A concise introduction to software Engineering, Pankaj Jalote, Springer
2. Software Engineering, Nasib Singh Gill, Khanna Publishing House

Python Programming
1. Taming Python by Programming, Jeeva Jose, Khanna Publishing House
2. Introduction to Computing and Problem Solving with Python, J. Jose, Khanna Publications
3. Python Programming, Seema Thareja, Pearson

Artificial Intelligence
1. A classical approach to Artificial Intelligence, Munesh Chandra Trivedi, Khanna Publications

Cryptography & Network Security

Internet of Things
2. Internet of Things, Arsheep Bahga and Vijay Madisetti

Software Testing
1. Software Testing, Yogesh Singh, University Press
2. Fundamentals of Software Testing, AB Mathur, Pearson

Data Analytics
1. Big Data & Hadoop, V.K. Jain, Khanna Publishing House
2. Big Data Black Book, DT Editorial Services, Wiley India

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
**Numerical Methods**
1. Numerical Methods, E. Balaguruswamy, TMH
2. Introductory Methods of Numerical Analysis, S.S. Sastry, PHI
3. Computer Oriented Numerical Methods, R.S. Salaria, Khanna Publishing House

**List of Some Other Useful Books:**
1. Information Systems Security, Nina Godbole, Wiley
2. Introduction to Embedded Systems, K.V. Shibu, McGraw Hill
5. Fundamentals of Computers, Rajaraman, PHI
10. Ad hoc Wireless Networks Architectures, C. Siva Ram Murthy, Pearson
12. Multimedia and Animation, V.K. Jain
13. Information Theory, R Ash, Dover Science Publications
15. Cloud Computing, Pandey & Choudhary
ELECTRONICS & COMMUNICATION ENGINEERING

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

EC01 – Electronic Devices
3. All-in-One Electronic Simplified, A.K. Maini, Khanna Publishing House

EC03 – Digital System Design
1. Modern Digital Electronics, RP Jain, TMH
3. A VHDL Primer, Bhaskar, Pearson
4. A VHDL Synthesis, Bhaskar, Pearson

EC05 – Signals and Systems
1. Signals and Systems, A. Anand Kumar, Phi
2. Signals and Systems, Tarun Rawat, Oxford University Press
5. Signals and Systems, J. Nagrath, S. N. Sharan, R. Ranjan, S. Kumar, TMH

EC05 – Network Theory
1. Networks and Systems, Asfaq Hussain, Khanna Publishing House, Delhi
3. Networks and systems, D. Roy Choudhary, New Age International Publishers

SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

EC07 – Analog & Digital Communication
1. Analog & Digital Communication, B.P. Lathi, Gupta, Oxford University Press
2. Analog & Digital Communications, Debajani Mitra, TMH

EC09 – Analog Circuits
1. Analog Electronics, L.K. Maheshwari, Laxmi Publications
3. Analog Electronics, I.G. Nagrath, PHI

EC11 – Microcontrollers
1. R. S. Gaonkar, Microprocessor Architecture: Programming and Applications with the 8085/8080A, Penram International Publishing
2. Microprocessors and Microcontrollers, Krishna Kant, PHI
3. 8051 Microcontrollers, Rajakamal, TMH

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
SEMESTER – V (THIRD YEAR)

List of Recommended Books:

EC13 – Electromagnetic Waves
2. Electromagnetic Waves, R.K. Shevgaonkar, Tata McGraw Hill India
3. Engineering Electromagnetics, Narayana Rao, PHI

EC15 – Computer Architecture
1. Computer Fundamentals Architecture and Organization, B. Ram, New Age
2. Computer Organization & Architecture, Rajaraman, PHI Learning

EC17 – Digital Signal Processing
3. Digital Signal Processing, Ashok Ambardar, Cengage
4. Digital Signal Processing, A. Anand Kumar, PHI

SEMESTER – VI (THIRD YEAR)

List of Recommended Books:

EC19 – Control Systems
2. Modern Control Engineering, Nagrath & Gopal, New Age International
3. Control Systems, A. Ambikapathy, Khanna Publishing House

EC20 - Computer Networks
1. Computer Networks, M. Dave, Cengage
3. Telecommunication Switching System and Networks, Viswanathan, PHI
4. An Engineering Approach to Computer Networking, Keshav, Pearson

List of Recommended books for Additional Courses:

ECEL02 – Fiber Optic Communication
1. Integrated Optics, T. Tamir, Springer-Verlag,
3. Fiber optic Communication Systems, G. Agrawal, Wiley India

ECEL05 – Introduction to MEMS
1. Micro and Smart Systems, Ananthasuresh & Gopalkrishnan, Wiley India

ECEL07 – Antennas and Propagation
ECEL14 – Power Electronics
2. Power Electronics, V.R. Moorthi, Oxford University Press.
3. Power Electronics, Muhammad H. Rashid, Pearson
4. Power Electronics, Joseph Vithyalthil, TMH

List of Some Other Useful Books:
1. Microwave Circuits, K.C. Gupta, Newage Publishers
2. Fundamentals of Digital Image Processing, Anil Kumar Jain, PHI
4. Electronic Product Design, G. Kaduskar and V.B. Baru, Wiley India
5. Information Theory, R.B. Ash, PHI
6. Telecommunication Switching Systems and Networks, T. Viswanathan, PHI
9. Robotics Technology, Deb, Wiley India
10. Switchgear & Protection, Haroon Asfaq, Khanna Book Publishing
CHEMICAL ENGINEERING

SEMESTER – II (FIRST YEAR)

List of Recommended Books:

BS105 – Mathematics – II
3. Advanced Engineering Mathematics (978-81-203-3609-4), Sashtry, PHI

ESC-GES102 – Thermodynamics - I
1. An Introduction to Thermodynamics, Rao, John Wiley
2. Chemical Technology Volume – I, Pandey, Lion Press

PCC-GES103 – Electrical & Electronics Engineering
1. Basic Electrical and Electronics Engineering, Sukhija and Nagsarkar, Oxford
2. Basic Electrical and Electronics Engineering, Kothari & Nagrath, TMH
3. All-in-One Electronics Simplified, A.K. Maini, Khanna Book Publishing Co., Delhi

PCC-CS101 – Material & Energy Balance Computation
1. Basic Principles and Calculations in Chemical Engineering, Himmelblau, Phi
2. Stoichiometry, Bhatt & Vora, TMH
3. Stoichiometry and Process Calculations, Narayanan & Lakshmikutty, PHI

SEMESTER – III (SECOND YEAR)

List of Recommended Books:

ESC-GES105 – Engineering and Solid Mechanics

BS107 - Chemistry – II
3. Essentials of Physical Chemistry, Bahl & Tuli, S.Chand Publishing
4. Applied Chemistry, Sunita Rattan, Kataria
5. Engineering Chemistry, Baskar, Wiley
PC-CS103 - Thermodynamics - II
1. Chemical Engineering Thermodynamics, YVC Rao, University Press

SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

PCC-CS104 – Heat Transfer

PCC-CS105 - Mass Transfer – I
1. Principles of Mass Transfer and Separation Processes, B.K. Dutta, PHI

PCC-CS106 - Fluid Mechanics
2. Fluid Mechanics, Sadhu Singh, Khanna Book Publishing
3. Introduction to Fluid Mechanics and Fluid Machines, Som & Biswas, TMH

ESC-GES107 - Material Science
1. Materials Science and Engineering, Raghavan, V, PHI

PCC-CS107 - Numerical Methods in Chemical Engineering
1. Numerical Methods for Engineers, Gupta, Newage Publishers

MC - Environmental Sciences
1. Textbook of Environmental Studies, Erach Bharucha, University Press
2. Environmental Studies, MP Poonia & SC Sharma, Khanna Publishing House
3. Environmental Studies, Rajagopalan, Oxford University Press

SEMESTER – V (THIRD YEAR)

List of Recommended Books:

PCC-CS108 - Chemical Reaction Engineering – I

PCC-CS109 - Mass Transfer – II
1. Principles of Mass Transfer and Separation Processes, B.K. Dutta, PHI

PC-CS1111- Particle & Fluid Particle Processing
1. Unit Operations-I, Fluid Flow & Mechanical Operation, Gavhane, Nirali Prakahan
2. Unit Operations Vol.-I, K. A. Gavhane, Nirali Prakahan
3. Chemical Process Simulation, Husain, Wiley Eastern India
SEMESTER – VI (THIRD YEAR)

List of Recommended Books:

PCC-CS112 - Chemical Reaction Engineering – II
2. Chemical Reaction Engineering Vol. - II, K. A. Gavhane, Nirali Prakashan

PCC-CS113 – Process Technology & Economics
1. Dryden’s Outlines of Chemical Technology, Rao, Affiliated Press
3. Chemical Project Economics, Mahajani, McMillan

PCC-CS114 – Process Control
1. Instrumentation and Process Control, D.C. Sikdar, Khanna Publishing House
2. Instrumentation, Measurement and Analysis, Nakra, TMH

SEMESTER – VII (FOURTH YEAR)

List of Recommended books for Additional Courses:

Water Conservation & Management
1. Elements of Water Pollution Control Engineering, OP Gupta, Khanna Publishing House, Delhi
2. Water Supply and Sanitary Engineering, Rangwala, Charotar Publications

Advanced Separation Process
1. Process Design of Equipments, Dawande, S.D., Central Techno, Nagpur

Environmental Pollution and Control
1. Elements of Environmental Pollution Control, OP Gupta, Khanna Publishing House
2. Environmental Pollution Control Engineering, C.S. Rao, Newage Publications

Energy Resources (Conventional & Non-Conventional)
1. Elements of Fuels & Combustion Technology, Gupta, Khanna Publishing House
2. Energy Audit and Management, Teri Press
3. Energy Conservation, Diwan & Dwivedi, Pentagon Press

Optimization Methods
1. Optimization Techniques, SS Rao, Wiley Eastern India

Petroleum Engineering
2. Outlines of Chemical and Petroleum Engineering, Suryanaryana & Mahto, Khanna Publishing

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
SEMESTER – III (SECOND YEAR)

List of Recommended Books:

BS201 – Biology
1. Biology for Engineers (ISBN: 9781121439931), TMH

BS203 – Mathematics - III

PCC-MM201 – Introduction to Materials Engineering
1. Materials Science and Engineering, Raghavan, V, PHI

PCC-MM203 – Phase Transformation
1. Solid State Phase Transformations, V. Raghavan, PHI

ESC201 – Materials Thermodynamics
2. Essentials of Metallurgical Thermodynamics, R.H. Tupkary, Khanna Publishing House

ESC201 – Engineering Mechanics
2. Engineering Mechanics, R.S. Khurmi, S.Chand Publishing
5. Applied Mechanics and Strength of Materials, Jindal, Galgotias

MC – Environmental Sciences
1. Textbook of Environmental Studies, Erach Bharucha, University Press
2. Environmental Studies, MP Poonia & SC Sharma, Khanna Publishing House
3. Environmental Studies, Rajagopalan, Oxford University Press

SEMESTER – IV (SECOND YEAR)

List of Recommended Books:

PCC-MM202 - Mechanical Properties for Materials

PCC-MM206 - Physical Metallurgy
1. Physical Metallurgy: Principles and Practice, V. Raghavan, PHI Learning

AICTE Suggested Books in Engineering & Technology w.e.f. 2018-19
PC-MM208 - Physics of Materials
1. Physics of Materials, Essential concepts of Solid State Physics, Prathap Haridoss, Wiley India

HSMC202 - Economics for Engineers
1. Sociology & Economics for Engineers, Premvir Kapoor, Khanna Publishing House, Delhi

SEMESTER – V (THIRD YEAR)

List of Recommended Books:

**PCC-MM301 - Materials Characterization**
1. Materials Characterization, P.K. Maitra, PHI

**PCC-MM303 - Environmental Degradation of Materials**
1. Elements of Environmental Pollution Control, OP Gupta, Khanna Publishing House
2. Environmental Pollution Control Engineering, C.S. Rao, Newage Publications

SEMESTER – VII (FOURTH YEAR)

List of Recommended Books:

**ESC401 - Introduction to Instrumentation**
1. Instrumentation and Process Control, DC Sikdar, Khanna Publishing House

List of Recommended books for Additional Courses:

**Energy Materials**
Energy Technology, O.P. Gupta, Khanna Book Publishing House, Delhi

**Biomaterials**
Introduction to Biomaterials, Agrawal & Gopinath, Cambridge University Press

**Electronic Materials**
Semiconductor Materials, Devices and Fabrication, Swaminathan, Wiley India

**Fatigue and Fracture Mechanics**
Fatigue of Materials, Suresh, Cambridge India

**Failure Analysis**

**Powder Metallurgy**
Powder Metallurgy, Upadhyaya & Upadhyaya, Universities Press
Power Metallurgy, Subramanian, PHI