JK Lakshmipat University, Jaipur Institute of Engineering & Technology Minutes of seventh meeting of the Board of Studies May 19, 2018

The seventh Board of Studies meeting of Institute of Engineering & Technology (IET) of JK Lakshmipat University (JKLU) was held on May 19, 2018 at 10:00 AM in IM-Amphitheater of the University. Dr. R. L. Raina, Vice Chancellor, extended heartfelt welcome to all Board of Studies (BoS) members and shared vision for most innovative University in higher education in India. Prof. Dr.-Ing. Anupam Kumar Singh, Director IET chairman - BoS extended a welcome note to all the members. He explained the aim and necessity of syllabus revision to all board members. The new syllabus for 2018-22 batch has strong focus on building professional competencies, provides larger flexibility in choosing curriculum and specializing in more than one through minor and major. Prof. Singh also explained the academic contribution of IET faculty and students members to all BoS members.

Following members were present in the meeting:

- 1. Prof. Dr.-Ing. Anupam Kumar Singh, Chairman BOS
- 2. Dr. Pushpendra Singh, Associate Professor, JKLU Jaipur.
- 3. Dr. Sonal Jain, Associate Professor, JKLU Jaipur.
- 4. Dr. S. Taruna, Associate Professor, JKLU Jaipur.
- 5. Dr. Kedar Sharma, Associate Professor, JKLU Jaipur.
- 6. Dr. Devika Kataria, Associate Professor, JKLU Jaipur.
- 7. Dr. Dambarudhar Seth, Associate Professor, JKLU Jaipur.
- 8. Dr. Neha Sharma, Assistant Professor, JKLU Jaipur.
- 9. Dr. Priyaranjan Sharma, Assistant Professor, JKLU Jaipur.
- 10. Dr. Jagdish Prasad Sharma, Assistant Professor, JKLU Jaipur.
- 11. Dr. Jitendra Kumar Singh, Assistant Professor, JKLU Jaipur.
- 12. Dr. Ashish Tripathy, Assistant Professor, JKLU Jaipur.
- 13. Dr. Amarish Dubey, Assistant Professor, JKLU Jaipur.
- 14. Dr. Rajlakshmi Nayak, Assistant Professor, JKLU Jaipur.
- 15. Prof. Ramkumar Agrawal, Assistant Professor, JKLU Jaipur.
- 16. Prof. Hanuman Prasad Agrawal, Assistant Professor, JKLU.
- 17. Prof. Shrinivas Rathod, Assistant Professor, JKLU Jaipur.
- 18. Prof. Vinod Kumar Vishwakarma, Assistant Professor, JKLU Jaipur.
- 19. Prof. Amit Kumar, Assistant Professor, JKLU Jaipur.

External Experts

- 20. Dr. Ashu Jain, Professor in Civil Engineering, IIT Kanpur.
- 21. Mr. Khalid Kamal Hussain, Principal Education & Research, Infosys Limited Jaipur.
- 22. Prof. Manoj Fauzdar, Professor, Department of Electrical Engineering, MNIT, Jaipur.
- 23. Dr. V. K. Choubey, Professor, Department of Electronics & Communication Engineering, BITS Pilani.

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- 24. Dr. S.L. Soni, Director, NIT Uttarakhand and former Professor, Mechanical Engineering, MNIT Jaipur.
- 25. Dr. Sanjay Vashishtha, Managing Director, First Green Consulting Pvt. Ltd., Gurgaon.

The following members requested leave of absence:

- 26. Dr. S.C. Bhaduri, Professor, JKLU Jaipur.
- 27. Dr. Kavita Choudhary, Associate Professor, JKLU Jaipur.
- 28. Prof. Devendra Bhavasar, Assistant Professor, JKLU Jaipur.
- 29. Prof. Priyansh Singh, Assistant Professor, JKLU Jaipur.
- 30. Prof. Aditya Avinash Joshi, Assistant Professor, JKLU Jaipur.
- 31. Dr. R Mukhopadhyay Director R&D & CEO, HASETRI, Kankroli.
- 32. Dr. Pramod Kumar Singh, Associate Professor, Department of Computer Science & Engineering, IITM Gwalior.
- 33. Mr. Rajiv Jain, Gulshan Rai & Co., Jaipur.

The Chairman BoS-IET briefed all the members about the proceedings of the meeting:

- 1. The program structure and course syllabus for batch 2018-2022 for B.Tech. programs of various disciplines of engineering [Civil Engineering (CE), Computer Science & Engineering (CSE), Electrical and Electronics Engineering (EEE), Mechanical Engineering (ME), B. Tech CSE with specialization in [Big Data Analytics, Cloud Computing, Information Security and Mobile Computing] and B.Tech. (CSE) with specialization in Enterprise IT in association with Red Hat have been discussed.
- 2. The program structure and course syllabi for batch 2018-2020 for M. Tech programs of engineering in [Computer Science & Engineering (CSE), Power System, Thermal Engineering, Digital Communication Engineering, and Health, Safety and Environmental Engineering] have been discussed.

After a joint session on highlighting agenda of the BoS, all BoS members have proceed further for discussion on their respective program curricula. Initially representative of each Department of Engineering presented the Program Structure of concerned discipline.. The day long final observations, recommendations and suggestions for various programs are listed below:

Programme: B. Tech in Civil Engineering

Expert members present in the meeting:

- 1. Prof. Dr.-Ing. Anupam Kumar Singh, Chairman BoS.
- 2. Dr. Kedar Sharma, Associate Professor, JKLU Jaipur.
- 3. Dr. Neha Sharma, Assistant Professor, JKLU Jaipur.
- 4. Dr. Jitendra Kumar Singh, Assistant Professor, JKLU Jaipur.
- 5. Prof. Vinod Kumar Vishwakarma, Assistant Professor, JKLU Jaipur.
- 6. Prof. Amit Kumar, Assistant Professor, JKLU Jaipur.
- 7. Dr. Ashu Jain, Professor, Department of Civil engineering, IIT Kanpur.

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The members approved the syllabus and content of the B. Tech program in civil engineering. The following suggestions were made by members:

- 1. There should be one course Environmental Engineering of 6 credits which should include water supply engineering and waste water engineering.
- 2. There should be one course in Structural Engineering discipline of 6 credits which should include Design of RCC and steel structure.
- 3. There should be one course Construction management of 4 credits which should include Estimating and Costing and Construction Project Management.
- 4. Maximum total number of Advanced Courses (AC) credits should be 12 instead of 16. Out of 02 courses (Apply Artificial Intelligence and Machine Learning, and Elements of design UI/UX/Product), the student choose only 01 course.
- 5. Total number of department electives (DE) credits should be 20 and there should be 6 baskets. Students should have complete freedom to choose 5 courses in any manner.
- 6. Structure Analysis course should be of 4 credits.
- 7. There should be one course of Fluid Mechanics and Hydraulic Engineering of credits 6.
- 8. The prerequisite if any must be completed before registering any DE Courses.
- 9. Some Electives in the area of Remote Sensing and GIS should be added.

Batch 2015-19

- 1. Practice School II (PS801) is proposed to shift to SEM VIII from SEM VII.
- 2. Infrastructure Planning and Finance Management (CE802) is proposed to replace by Industrial Pollution Abatement (CHE803).

Batch 2016-20

- 1. In Design of RCC Structures (CE507) course, following topics of Steel Structure proposed to be added:
 - i. Design of Connection
 - ii. Design of Compression member
 - a. Teaching Scheme is proposed to change from (3 1 0) to (4 1 0)
 - b. Credit should be increased by 1 from 4 credits to 5 credits.
- 2. Transportation Engineering (CE512) has been shifted from 5th to 6th semester and HS elective (Introduction to Critical Thinking (LA204)) has been introduced in place of Transportation Engineering in semester V.
- Foreign Language has been removed from curriculum.
- 4. Design of Steel Structures (CE607) is removed from semester VI.
- 5. Minor Project should be removed from semester VI.
- 6. Elective VI and Major Project (CE720) should be removed from semester VII.

Programme: B. Tech in Computer Science & Engineering

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Expert members present in the meeting:

- 1. Dr. Sonal Jain, Associate Professor, JKLU Jaipur.
- 2. Dr. S. Taruna, Associate Professor, JKLU Jaipur.
- 3. Dr. Alok Kumar, Assistant Professor, JKLU Jaipur.
- 4. Mr. Khalid Kamal Hussain, Principal Education & Research, Infosys Limited Jaipur.

B.Tech.

- 1. In semester VII, the following electives are suggested which can be added for 2016 batch onwards.
 - UI Development
 - Spring Framework
 - Micro Services
- 2. In semester VII, a new course namely Advanced Java (CSE777) has been added,
- 3. In semester VII, introduction to Java needs to be included.
- 4. In semester VII, introduction of spring framework to be added in syllabus of Advanced Java.

M.Tech.

- 1. M.Tech. in CSE Big Data Analytics can to be renamed to M.Tech. in CSE (with specialization in Data Science) or M.Tech. in Data Science.
- 2. It may be open for B.Tech. all other engineering branches.

Programme: B.Tech. in Electrical and Electronics Engineering

Expert members present in the meeting:

- 1. Dr. Devika Kataria, Associate Professor, JKLU Jaipur.
- 2. Dr. Pushpandra Singh, Associate Professor, JKLU, Jaipur.
- 3. Dr. Dambarudhar Seth, Associate Professor, JKLU Jaipur.
- 4. Dr. Jagdish Prasad Sharma, Assistant Professor, JKLU Jaipur.
- 5. Prof. H P Agarwal, Assistant Professor, JKLU Jaipur.
- 6. Dr. Ashish Tripathy, Assistant Professor, JKLU Jaipur.
- 7. Dr. Amarish Dubey, Assistant Professor, JKLU Jaipur.
- 8. Prof. Manoj Fauzdar, Professor, Department of Electrical Engineering, MNIT, Jaipur.
- 9. Dr. V. K. Choubey, Professor, Department of Electronics & Communication Engineering, BITS Pilani.

The members approved the syllabus and content of the B.Tech. program in electrical and electronics engineering. Following suggestions were made by members:

- 1. The new scheme for 2018-22 has been approved in principle. The syllabus for Elements of Electrical and Electronics Engineering should be in outline only rather than in large detail. Syllabus of higher semesters to be worked out and put up to experts for approval.
- 2. Power System Operation and Control should be a compulsory subject.

B.Tech. in Electrical Engineering

Batch 2015-19

- 1. In VII semester, Testing and Commissioning of Electrical Machines syllabus has to be modified, high voltage content has been removed.
- 2. Electrical Drive and Control (EE704) has been replaced with Industrial Drive and Electrical Vehicles (EE731) and the syllabus, scheme of conduct, and evaluation scheme have been modified.
- 3. Elective II has been replaced by HS Elective with 2 credits.
- 4. Elective III has been replaced by Open Elective.

Batch 2016-20

- 1. Foreign language has been removed from semester V.
- 2. In V semester, credit for Open Elective I has been reduced to 3 and credits for Linear Control System has been restricted to 4.
- 3. Elective I has been shifted from semester V to semester VII.
- 4. Open Elective II has been shifted from semester V to semester VI.
- 5. In semester VI, Power System Analysis (EE601) credits has restricted to 4, Industrial Electronics (EE603) credits restricted to 4, and Minor Project (EE608) has been removed.
- 6. It was suggested that EHV AC/DC Transmission, and Advanced Distribution System should be replaced by Advances in Power delivery.
- 7. In semester VII, Major Project (EE714) has been removed. HS Elective of credit 2 has been introduced.
- 8. Elective II is replaced by Testing and Commissioning of Electrical Equipments.
- 9. Electrical Drive and Control (EE701) has been replaced by Industrial Drive and Electrical Vehicle (EE731).
- 10. Testing and Commissioning of Electrical Machines (EE703) has been updated and renamed as Testing and Commissioning of Electrical Equipments (EE732).

Batch 2017-21

- 1. In III semester, Network Theory I & II have been merged as Network Analysis and Synthesis (EE301) and credits are restricted to 4.
- 2. Digital Electronics (ECE306), has been shifted from IV semester to III semester.
- 3. Measurement and Instrumentation (EE303) shifted from semester III to IV.
- 4. In IV semester, Electrical Machines I & II have been merged and named as Electrical Machines (EE404). Syllabus has to be redefined and sent for approval to experts.

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- 5. In IV semester a new course, Analog Electronics has to be merged in Electronic Devices and Circuits and Linear ICs has been introduced in IV semester. The syllabus for Linear ICs has to be approved.
- 6. Transmission and Distribution of Electrical Power (EE603) has interchanged with Industrial Electronics (EE503) and credits restricted to 4.
- 7. In V semester foreign language has been removed.
- 8. In V semester open elective 2 is shifted to VI semester and Elective I is shifted to VII semester.
- 9. In VI semester, Minor Project (EE608) has been removed by Power System Analysis (EE601) and credits restricted to 4.
- 10. In VII semester Major Project (EE714) has been removed. HS Elective of credit 2 has been introduced in place of Elective IV.
- 11. Elective II is replaced by Testing and Commissioning of Electrical Equipments (EE703).
- 12. Elective III has been replaced by Industrial Drive and Electrical Vehicle (EE731).

B. Tech in Electronic and Communication Engineering

Batch 2015-19

- 1. In VII Semester, Optical Fiber Communication (ECE801) which was a compulsory subject earlier has been made an open elective subject.
- 2. In VII semester, Elective II, a new course Optoelectronics (ECE754) has been added.
- 3. In VII semester, Open Electives has been introduced with addition of new courses such as Internet of Things (ECE745) with existing course Image Processing (ECE828).

Batch 2016-20

- 1. Microwave Engineering has been shifted to semester VI and Microprocessor and Interfacing has been shifted to semester V. In Microprocessors, some contents have been replaced by new ones. Subject has been renamed as Microprocessor and Microcontroller.
- 2. Wireless communication (ECE731) has been made compulsory subject in VI semester and Telecommunication and Switching Networks (ECE611) has been made an elective subject.
- 3. Evaluation scheme and syllabus of Digital Signal Processing (ECE515) has been modified.
- 4. One open elective from V semester has been removed, reducing 3 credits from V semester.
- 5. Minor Project from VI semester has been removed reducing 4 credits from VI semester
- 6. One elective from VII semester has been removed, reducing 3 credits from VII semester.

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7. Spintronic (ECE748) and Internet of Things (ECE745) has been added as Elective.

Batch 2017-21

- 1. Network Analysis and Synthesis (EE301) has been added to III semester
- 2. Microwave Engineering has been shifted to semester VI and Microprocessor and Interfacing has been replaced by Advanced Microcontroller as an elective course.
- 3. Analog Electronics is merged with EDC and Linear IC is placed in IV semester.
- 4. Analog and Digital Communication have been merged as ECE507.
- 5. Digital Signal Processing syllabus and evaluation scheme has been changed.
- 6. One open elective from V semester has been removed, reducing 3 credits from V semester.
- 7. Minor Project from VI semester has been removed reducing 4 credits from VI semester.
- 8. One elective from VII semester has been removed, reducing 3 credits from VII semester.
- 9. New electives added are Advanced Microcontrollers (ECE757) and Spintronic (ECE748).
- 10. New open elective MEMs and Smart Sensors (ECE746) added.
- 11. In V semester, Control System has been renamed as Linear Control System and it is shifted to IV semester. Linear IC has to be placed in V semester.
- 12. In VI semester, Wireless Communication has to be renamed as Wireless Communication and Network.

Programme: B. Tech in Mechanical Engineering

Expert members present in the meeting:

- 1. Prof. Ramkumar Agrawal, Lecturer, JKLU Jaipur.
- 2. Dr. Priyaranjan Sharma, Assistant Professor, JKLU Jaipur.
- 3. Prof. Shrinivas Rathod, Assistant Professor, JKLU Jaipur.
- 4. Dr. Rajlakshmi Nayak, Assistant Professor, JKLU Jaipur.
- 5. Dr. S. L. Soni, Professor, Mechanical Engineering, MNIT Jaipur.
- 6. Dr. Sanjay Vashishtha, Managing Director, First Green Consulting Pvt. Ltd., Gurgaon.

The members approved the syllabus and content of the B. Tech program in mechanical engineering. The following suggestions were made by members:

Programme: B.Tech.

1. The new scheme for 2018-22 has been approved in principle. Syllabus of higher semesters to be worked out and put up to experts for approval.

Batch 2015-19

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1. In semester VII, Power Plant Engg. (ME803) is approved as open elective course (Industrial Pollution Abatement (CHE803)/ Power Plant Engg (ME803)).

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- 2. In semester VII, Total Quality Management (ME804) is approved as Elective course (Metal Forming Analysis (ME832)/ Total Quality Management (ME804)).
- 3. In semester VII, elective 3 has been replaced by HSS course.
- 4. In semester VII, elective 4 has been removed.

Batch 2016-20

- 1. In semester V, in open elective 1, two courses are fixed as "Refrigeration and Air Conditioning" (ME602) and "Process Instrumentation & Control" (CHE508).
- 2. In semester V, elective 1 has been removed.
- 3. In semester VI, open elective 2 has been replaced by I.C. Engines and Gas Turbines (ME609).
- 4. In semester VI, open elective 3 has been removed.
- 5. In semester VII, CAD/CAM (ME702) has been introduced in place of elective 2.
- 6. In semester VII, elective 1(Metal Forming Analysis (ME832)/Total Quality Management (ME804)) has been introduced in place of elective 3.
- In semester VII, open elective 2 (Industrial Pollution Abatement / Power Plant Engg.) has been introduced in place of elective 4.
- 8. In semester VII, HSS elective 3 has been introduced in place of Major Project with the same credit 4.

Batch 2017-21

- 1. In III semester, Machine Drawing (ME305) has been removed.
- 2. Mechanical Measurements (ME411) has been shifted from IV semester to V semester.
- 3. Design of Machine Elements I & II have been merged as Machine Design (ME610), kept in semester VI in place of Design of Machine Elements-II, and credit restricted to 4.
- 4. I.C. Engines and Gas turbines (ME502) has been introduced in semester V in place of Design of Machine Elements-I.
- 5. Applied Thermodynamics (ME509) has been shifted from semester V to semester VII in place of elective IV, with the same syllabus and name is changed as Turbomachinery.
- 6. In semester VI, Refrigeration and Air conditioning (ME602) has been introduced in place of open elective 3.
- 7. In semester VII, open elective 3 has been introduced in place of Major Project with the same credit 4.

Discipline: Common to all Programs

1. It was suggested to do small changes in place of drastic change in syllabus then observe the outcomes.

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- 2. It was advised to fix the credit limit for lower range 160 and upper range 180. Departmental credits may vary but advised to make regulation properly.
- 3. Monitoring is required for audit courses at Institute or departmental level.
- 4. It was suggested to make some regulation for departmental/open electives.
- 5. It was advised to start project based learning from semester IV onwards.
- 6. Students may go for industrial projects too.
- 7. There will be maximum Open Elective credits 12.
- 8. No of credits in Liberal Arts and Science (LAS) shall be 16.
- 9. The prerequisite if any must be completed before registering any OE Courses.

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Prof. Yogesh Rohilla

Dr. Richa Sharma

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Prof. Dr.-Ing. Anupam Kumar Singh Chairman, BOS

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Based on the suggestions given by various stakeholders, program-wise following courses have been introduced. The details of these courses are given below.

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Program Name	Batch	Code	Subject Name	Credits	Year	Semester	Core/ Elective
B Tech CE	2015-19	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech CE	2015-19	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech CE	2016-20	CE507	Design of RCC & Steel Structure	5	3	5	Core
B Tech CSE	2015-19	CSE777	Advanced Java	3	4	7	Elective
B Tech CSE	2015-19	CSE724	Machine Learning	3	4	7	Elective
B Tech CSE	2016-20	IM311	Basic Enterpreneurship	3	3	5	Open Elective
B Tech CSE	2016-20	CSE555	Computing using Python	4	3	5	Core
B Tech CSE	2016-20	CSESP501	Enterprise Application Development using JAVA	4	3	5	Core
B Tech CSE	2016-20	CSEBD501	Enterprise Reporting Using Business Intelligence	4	3	5	Core
B Tech CSE	2016-20	ECE510	Microprocessors & Microcontrollers	4	3	5	Core
B Tech CSE	2017-21	CSESP302	Linux System Administration-I	2	2	3	Core
B Tech CSE	2018-22	BES101	Calculus and Applied Mechanics	6	1	1	Core
B Tech CSE	2018-22	BES102	Design and Prototyping	6	1	1	Core
B Tech ECE	2016-20	ECE507	Analog and Digital Communications	5	3	5	Core
B Tech ECE	2017-21	EE304	Network Analysis & Synthesis	5	2	3	Core
B Tech EE	2015-19	EE731	Industrial Drive & Electric Vehicles	4	4	7	Core
B Tech EE	2015-19	EE732	Testing and Commissioning of Electrical Equipment	4	4	7	Elective
B Tech EE	2016-20	EE706	Advances in Power Delivery	5	3	5	Core
B Tech M Tech CSE	2015-20	MTCS103	Introduction to Machine Learning	2	3	7	Core
M Tech HSEE	2018-20	MTHSE101	Environmental Pollution Control	5	1	1	Core
M Tech HSEE	2018-20	MTHSE102	Occupational Health and Hygiene	3	1	1	Core
M Tech HSEE	2018-20	MTHSE106	Pedagogy-I	3	1	1	Core
M Tech HSEE	2018-20	MTHSE105	Project Studio-I	2	1	1	Core
M Tech HSEE	2018-20	MTHSE104	Regulation for Health, Safety and Environment	3	1	1	Core
M Tech HSEE	2018-20	MTHSE103	Safety in Engineering Industry	3	1	1	Core
M Tech HSEE	2018-20	MTHSE201	EIA and Environmental Auditing	3	1	2	Core
M Tech HSEE	2018-20	CCT601	Personal Branding & Workplace Communication	2	1	2	Core
M Tech HSEE	2018-20	MTHSE203	Project Studio-II	2	1	2	Core

COURSES INTRODUCED

M Tech HSEE	2018-20	MTHSE202	Risk Analysis and Solid Waste Management	3	1	2	Core
M Tech HSEE	2018-20	MTHSE222	Electrical Safety	3	1	2	Elective
M Tech HSEE	2018-20	MTHSE214	Safety in Chemical Industry	3	1	2	Elective
M TechTh Engg	2017-19	TEMTECH 304	Minor Dissertation	8	2	3	Core
M TechTh Engg	2017-19	TEMTECH 322	Refrigeration and Air-conditioning System Design	4	2	3	Elective
M Tech Th Engg	2017-19	MTECH402	Major Dissertation	18	2	4	Core
PhDIET	2018-21	PHCSE05	Applied Machine Learning	3	1	1	Elective
PhDIET	2018-21	PHCSE06	Performance Evaluation of Computer & Communication System	3	1	1	Elective

COURSES DROPPED

Progarm Name	Batch	Code	Subject Name	Credits	Year	Semester	Core/ Elective
B Tech CE	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech CE	2016-20	CE801	Construction Equipment Methods	3	4	7	Core
B Tech CE	2016-20	CHE803	Industrial Pollution Abatement	4	4	7	Core
B Tech CE	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech CE	2016-20	CE838	Ground Improvement Techniques	3	4	7	Elective
B Tech CE	2017-21	CCT507	Professional Communication	3	3	5	Core
B Tech CE	2017-21	CE507	Design of RCC & Steel Structure	5	3	5	Core
B Tech CE	2017-21	CE509	Environmental Engineering-II	4	3	5	Core
B Tech CE	2017-21	CE510	Hydrology and Water Resources Engineering	3	3	5	Core
B Tech CE	2018-22	CCT306	Effective Communication Design	3	2	3	Core
B Tech CE	2018-22	CE305	Structure Analysis-I	4	2	3	Core
B Tech CE	2018-22	CE306	Fluid Mechanics	5	2	3	Core
B Tech CE	2018-22	CE308	Surveying	4	2	3	Core
B Tech CE	2018-22	ID303	Intelligent Machines (AI, Robotics, IoT)	2	2	3	Core
B Tech CE	2018-22	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech CHE	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech CHE	2016-20	CHE702	Process Utility and Industrial Safety	4	4	7	Core
B Tech CHE	2016-20	CHE803	Industrial Pollution Abatement	4	4	7	Core
B Tech CHE	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech CHE	2016-20	CHE715	Petroleum Refinery and Petro-	4	4	7	Elective

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B Tech CHE	2017-21	CCT507	Professional Communication	3	3	5	Core
B Tech CHE	2017-21	CHE507	Mass Transfer Operation-II	5	3	5	Core
B Tech CHE	2017-21	CHE508	Process Instrumentation and Control	5	3	5	Core
B Tech CHE	2017-21	CHE509	Chemical Process Technology	3	3	5	Core
B Tech CHE	2017-21	CHE715	Petroleum Refinery and Petro- chemicals	4	3	5	Elective
B Tech CSE	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech CSE	2016-20	CSE703	Artificial Intelligence	3	4	7	Core
B Tech CSE	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech CSE	2016-20	CSE702	Mobile Computing	3	4	7	Elective
B Tech CSE	2016-20	CSE724	Machine Learning	3	4	7	Elective
B Tech CSE	2016-20	CSE777	Advanced Java	3	4	7	Elective
B Tech CSE	2017-21	CCT507	Professional Communication	3	3	5	Core
B Tech CSE	2017-21	CSE503	Computer Networks	4	3	5	Core
B Tech CSE	2017-21	CSE555	Computing using Python	4	3	5	Core
B Tech CSE	2017-21	CSEBD501	Enterprise Reporting Using Business Intelligence	4	3	5	Core
B Tech CSE	2017-21	CSESP501	Enterprise Application Development using JAVA	4	3	5 -	Core
B Tech CSE	2017-21	ECE510	Microprocessors & Microcontrollers	4	3	5	Core
B Tech CSE	2017-21	ID504	Finite Element Analysis	3	3	5	Open Elective
B Tech CSE	2017-21	PH501	Nanotechnology	3	3	5	Open Elective
B Tech CSE	2017-21	IM311	Basic Enterpreneurship	3	3	5	Open Elective
B Tech CSE	2018-22	CCT306	Effective Communication Design	3	2	3	Core
B Tech CSE	2018-22	CSE304	Application Development	4	2	3	Core
B Tech CSE	2018-22	CSESP301	Object Oriented Programming Using Java	4	2	3	Core
B Tech CSE	2018-22	ECE310	Digital Electronics	5	2	3	Core
B Tech CSE	2018-22	ID303	Intelligent Machines (AI, Robotics, IoT)	2	2	3	Core
B Tech CSE	2018-22	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech CSE	2018-22	CSESP302	Linux System Administration-I	2	2	3	Core
B Tech CSE	2018-22	CSE429	Computing with SAS	3	2	3	Open Elective
B Tech CSE	2019-23	CCT101	The Power of Story Telling	3	1	1	Core
B Tech ECE	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core

B Tech ECE	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech ECE	2016-20	CSE777	Advanced Java	3	4	7	Elective
B Tech ECE	2016-20	ECE822	Biomedical Engineering	3	4	7	Elective
B Tech ECE	2017-21	CCT507	Professional Communication	3	3	5	Core
B Tech ECE	2017-21	ECE510	Microprocessors & Microcontrollers	4	3	5	Core
B Tech ECE	2017-21	CSE503	Computer Networks	4	3	5	Open Elective
B Tech ECE	2017-21	PH501	Nanotechnology	3	3	5	Open Elective
B Tech ECE	2018-22	CCT306	Effective Communication Design	3	2	3	Core
B Tech ECE	2018-22	ECE310	Digital Electronics	5	2	3	Core
B Tech ECE	2018-22	EE304	Network Analysis & Synthesis	5	2	3	Core
B Tech ECE	2018-22	ID303	Intelligent Machines (AI, Robotics, IoT)	2	2	3	Core
B Tech ECE	2018-22	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech EE	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech EE	2016-20	EE731	Industrial Drive & Electric Vehicles	4	4	7	Core
B Tech EE	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech EE	2017-21	CCT507	Professional Communication	3	3	5	Core
B Tech EE	2017-21	EE501	Linear Control Systems	5	3	5	Core
B Tech EE	2017-21	EE503	Transmission & Distribution of Electrical Power	4	3	5	Core
B Tech EE	2017-21	EE706	Advances in Power Delivery	5	3	5	Core
B Tech EE	2017-21	ECE510	Microprocessors & Microcontrollers	4	3	5	Open Elective
B Tech EE	2018-22	CCT306	Effective Communication Design	3	2	3	Core
B Tech EE	2018-22	ECE310	Digital Electronics	4	2	3	Core
B Tech EE	2018-22	EE304	Network Analysis & Synthesis	5	2	3	Core
B Tech EE	2018-22	ID303	Intelligent Machines (AI, Robotics, IoT)	2	2	3	Core
B Tech EE	2018-22	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech EEE	2019-23	CCT101	The Power of Story Telling	3	1	1	Core
B Tech ME	2016-20	CCT708	Workplace & Interpersonal Communication	3	4	7	Core
B Tech ME	2016-20	ID303	Intelligent Machines (AI, Robotics, IoT)	2	4	7	Core
B Tech ME	2016-20	ME802	CAD-CAM	4	4	7	Core
B Tech ME	2016-20	ME804	Total Quality Management	3	4	7	Core
B Tech ME	2017-21	CCT507	Professional Communication	3	3	5	Core

B Tech ME	2017-21	ME504	Design of Machine Elements - I	4	3	5	Core
B Tech ME	2017-21	ME509	Applied Thermodynamics	5	3	5	Core
B Tech ME	2017-21	CHE508	Process Instrumentation and Control	4	3	5	Open Elective
B Tech ME	2017-21	ID504	Finite Element Analysis	3	3	5	Open Elective
B Tech ME	2017-21	IM311	Basic Enterpreneurship	3	3	5	Open Elective
B Tech ME	2018-22	CCT306	Effective Communication Design	3	2	3	Core
B Tech ME	2018-22	ID303	Intelligent Machines (AI, Robotics, IoT)	2	2	3	Core
B Tech ME	2018-22	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech ME	2018-22	ME306	Strength of Materials	4	2	3	Core
B Tech ME	2018-22	ME308	Fluid mechanics & Machines	5	2	3	Core
B Tech ME	2019-23	CCT101	The Power of Story Telling	3	1	1	Core
M Tech HSEE	2019-21	MTHSE101	Environmental Pollution Control	5	1	1	Core
M Tech HSEE	2019-21	MTHSE103	Safety in Engineering Industry	3	1	1	Core
M Tech HSEE	2019-21	MTHSE104	Regulation for Health, Safety and Environment	3	1	1	Core
M Tech HSEE	2019-21	MTHSE105	Project Studio-I	2	1	1	Core
M Tech HSEE	2019-21	MTHSE106	Pedagogy-I	3	1	1	Core
M Tech HSEE	2019-21	CCT601	Personal Branding & Workplace Communication	2	1	2	Core
M Tech HSEE	2019-21	MTHSE201	EIA and Environmental Auditing	3	1	2	Core
M Tech HSEE	2019-21	MTHSE202	Risk Analysis and Solid Waste Management	3	1	2	Core
M Tech HSEE	2019-21	MTHSE203	Project Studio-II	2	1	2	Core
M Tech HSEE	2019-21	MTHSE214	Safety in Chemical Industry	3	1	2	Elective
M Tech HSEE	2019-21	MTHSE222	Electrical Safety	3	1	2	Elective
PhD IET	2019-22	PHLA05	Advanced Professional Communication	4	1	1	Core
PhD IET	2019-22	PHCSE05	Applied Machine Learning	3	1	1	Elective
PhD IET	2019-22	PHCSE06	Performance Evaluation of Computer & Communication System	3	1	1	Elective

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