JK Lakshmipat University, Jaipur
Institute of Engineering & Technology
Minutes of fifth meeting of the Board of Studies
March 18, 2017

The fifth board of studies meeting of Institute of Engineering & Technology (IET) of JK Lakshmipat University (JKLU) was held on March 18, 2017 at 10:00 AM in IM-Amphitheater of the University. Dr. R. L. Raina, Vice Chancellor, JKLU addressed Board of Studies (BOS) members of both the institutes jointly. Prof. Dr. Ing. Anupam Kumar Singh, Director IET as chairman of BOS extended a welcome note to all the members of the BOS. Prof. Singh explained the aim and necessity of syllabus revision to all board members. Discussion of program structure was held in line with various criteria's put forward by accreditation from national agencies such as UGC, NAAC, AICTE etc.

Following members were present in the meeting:

1. Prof. Dr. Ing. Anupam Kumar Singh, Chairman BOS
2. Dr. S.C. Bhaduri, Professor, JKLU Jaipur.
3. Dr. Pushpendra Singh, Associate Professor, JKLU Jaipur.
4. Dr Sonal Jain, Associate Professor, JKLU Jaipur.
5. Dr. S.S. Sengar, Associate Professor, JKLU Jaipur.
6. Dr Sandeep Kumar Tomar, Associate Professor, JKLU Jaipur.
7. Dr Umesh Gupta, Associate Professor, JKLU Jaipur.
8. Dr Vipin Kumar Jain, Associate Professor, JKLU Jaipur.
9. Dr. Kavita Choudhary, Associate Professor, JKLU Jaipur.
10. Dr. S. Taruna, Associate Professor, JKLU Jaipur.
11. Dr. Dambarudhar Seth, Associate Professor, JKLU Jaipur.
12. Dr. Murari Lal Gupta, Associate Professor, JKLU Jaipur.
13. Dr Neha Sharma, Assistant Professor, JKLU Jaipur.
14. Dr. Navneet Kumar, Assistant Professor, JKLU Jaipur.
15. Dr. Priyaranjan Sharma, Assistant Professor, JKLU Jaipur.
16. Dr. Sudhansu Ranjan Das, Assistant Professor, JKLU Jaipur.
17. Prof. Jagdish Prasad Sharma, Assistant Professor, JKLU Jaipur.
18. Prof. Hanuman Prasad Agrawal, Assistant Professor, JKLU.
19. Prof. Devendra Bhavasar, Assistant Professor, JKLU Jaipur.
20. Dr Jitendra Kumar Singh, Assistant Professor, JKLU Jaipur.
21. Prof. Shrinivas Rathod , Assistant Professor, JKLU Jaipur.
22. Prof. Divanshu Jain, Assistant Professor, JKLU Jaipur.
23. Dr Sahanawaz Khan, Assistant Professor, JKLU Jaipur.
24. Dr Jaya Gupta, Assistant Professor, JKLU Jaipur.
25. Dr Richa Sharma, Assistant Professor, JKLU Jaipur.
26. Dr Poonam Vyas, Assistant Professor, JKLU Jaipur.
27. Prof. Ashish Tripathi, Assistant Professor, JKLU Jaipur.

28. Prof. Yogesh Rohilla, Lecturer, JKLU Jaipur.
29. Prof Vinod Kumar Vishwakarma, Lecturer, JKLU Jaipur.
30. Prof. Amit Kumar, Lecturer, JKLU Jaipur.

External Experts

31. Dr. Ashu Jain, Professor, Department of Civil Engineering, IIT-Kanpur.
32. Prof. Dr. A. K. Vyas, Professor, Department of Civil Engineering, MNIT Jaipur
33. Dr. V. K. Choubey, Professor, Department of Electonics & Communication Engineering, BITS Pilani
34. Prof. Manoj Fauzdar, Professor, Department of Electrical Engineering, MNIT, Jaipur.
35. Dr. Sanjay Vashishtha, Managing Director, First Green Consulting Pvt. Ltd., Gurgaon
36. Mr. Satendra Singh, Director & Manufacturing, Head India, Nokia Solutions & Network, Chennai
37. Mr Khalid Kamal Hussain, Principal-Education & Research, Infosys Limited Jaipur.
38. Dr. K. C. Jain, Professor and Head, Department of Mathematics, University of Rajasthan.
39. Dr. Nupur Tandon, Associate Professor, Department of Humanities, MNIT Jaipur.

The following members requested leave of absence:

40. Dr. S.L. Soni, Professor, Mechanical Engineering, MNIT Jaipur.
41. Dr. Pramod Kumar Singh, Associate Professor, Department of Computer Science & Engineering, IITM Gwalior.
42. Dr R Mukhopadhyay, Director R&D CEO, HASETRI, Kankroli.
43. Prof. Dr. Ravindra Gudi, Professor, Department of Chemical Engineering, IIT Bombay, Mumbai.
44. Mr. Krishna Yadav, Managing Director, Devi Construction, Jaipur
45. Mr. Kunwer Sachdev, Managing Director, Su-Kam Power Systems Ltd., Gurgaon
46. Dr. B.K. Sharma, Retd. Professor – Physics, University of Rajasthan.
47. Mr. Igor Palka, CEO, MMI Mumbai.
48. Dr. Y.C. Joshi, Assistant Professor - Chemistry

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

1. The program structure and course syllabi for batch 2017-2021 for B.Tech programs of various disciplines of engineering [Chemical Engineering (CHE), Civil Engineering (CE), Computer Science & Engineering (CSE), Electrical Engineering (EE), Mechanical Engineering (ME), Electronics & Communication Engineering (ECE) and B. Tech CSE with specialization in [Big Data Analytics, Cloud Computing, Information Security and Mobile Computing] will be discussed. IET has introduced two new programs in B. Tech CSE and B. Tech ECE (Specialization in Enterprise IT in association with Red Hat). The program structure and syllabus to be fixed for these new programs.
2. The program structure and course syllabi for batch 2017-2019 for M. Tech programs of engineering in [Computer Science & Engineering (CSE), Power

System, Thermal Engineering and Digital Communication Engineering] and one newly introduced program at M. Tech in Health, Safety and Environmental Engineering will be discussed.

After a joint session on highlighting agenda of the BOS, all BOS members have proceed further for discussion on their respective course curricula. Initially representative of each Department of Engineering presented the Program Structure of concerned discipline. It was suggested to finish review before Academic Council meeting. Final Observations, Recommendations and Suggestions for various programs are listed below:

Programme: B. Tech in Chemical Engineering

Expert members present in the meeting:

1. Dr Neha Sharma, Assistant Professor, Department of Chemical Engineering, JKLU Jaipur
2. Dr Jitendra Kumar Singh, Assistant Professor, Department of Chemical Engineering, JKLU Jaipur
3. Prof. Dr. Ravindra Gudi*, Professor, Department of Chemical Engineering, IIT Bombay, Mumbai sought of leave of absence.
4. Dr R Mukhopadhyay*, Director R&D CEO, HASETRI, Kankroli.

*Concern of external experts is taken by mail and telephonic conversation.

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

1. Course Fluid flow operations and Mechanical Operations (CHE307) with teaching scheme (3 1 2 0) 5 has been split into two courses namely Fluid flow operations (CHE302) with teaching scheme (3 1 2 0) 5 and Mechanical Operations (CHE308) with teaching scheme (3 1 2 0) 5.
2. Teaching scheme of course Chemical reaction engineering-I (CHE404) is changed from (3 0 4 0) 5 to (3 1 2 0) 5.
3. Course Chemical Engineering Materials (CHE409) is shifted from semester III to semester IV.
4. Course Chemical reaction engineering-II (CHE501) with teaching scheme (3 1 0 0) 4 is shifted from open elective-1 to regular core course.
5. Course Chemical Process Technology (CHE509) is shifted from semester V to semester VI and re-code as CHE602

6. A new course Non-conventional energy resources (CHE612) with teaching scheme (3 0 0 0) 3 is added in list of Open elective-I.
7. Course Biochemical engineering (CHE606) is floated as regular course in place of open elective.
8. A new course Corrosion engineering (CHE623) with teaching scheme (3 0 0 0) 3 is added in list of Open elective-III.
9. Course of elective-II Process Engineering and Plant Design (CHE712) with teaching scheme (3 0 0 0) 3 is replaced with new course Project engineering and Management (CHE715) with teaching scheme (3 0 0 0) 3.
10. Course Process Equipment design (CHE603) with teaching scheme (3 1 2 0) 5 is shifted from semester VI to semester VII and re-code as CHE705.

Programme: B. Tech in Civil Engineering

Expert members present in the meeting:

1. Prof. Dr. Ing. Anupam Kumar Singh, Chairman BOS
2. Prof Vinod Kumar Vishwakarma, Lecturer, JKLU Jaipur.
3. Prof. Amit Kumar, Lecturer, JKLU Jaipur.
4. Dr. Ashu Jain, Professor, Department of Civil engineering, IIT-Kanpur.
5. Prof. Dr. A. K. Vyas, Professor, Department of Civil Engineering, MNIT Jaipur

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

1. It was suggested to have a perfect balance in different components like
   - Core Engineering Courses
   - Core Elective Courses+ Open Elective/ Institute Elective Courses
   - Humanities and Communication courses
   - Sciences (Physics, Chemistry and Maths) courses,
   - Lab training
   - Field training

   Majorly the external experts were of the opinion of coming up with a flexible design were the student would have interesting courses of his choice in core and open electives for having inter disciplinary exposure. Based on the inputs suggested by the external experts and an insightful presentation of Prof. Ashu Jain on philosophy of the Design of Course Structure followed at IIT Kanpur. Apart from it the main objective of all the courses would be to have more emphasis on applications and giving importance to laboratory assignments or case studies relevant in terms of Job perspective and also helping students preparing for competitive exams (GATE, IES etc.).

Distribution of existing course curriculum with Overall Credits with its components:

Course Type	Credits	Percentage share for the Total Credits (%)
Core Engineering	102	54.0
Core-Elective	19	10.0
Open Electives	03	1.5
Sciences (Physics+Chemistry+Maths) and Engineering Science	44	23.5
Technological Art (TA)	3	1.5
Foreign Language and Communication courses	10	5.0
HS/Communication	8	4.5
Total	189	100

2. Departmental core subjects are slightly higher in course curriculum.
3. Open electives are less in current course curriculum. So some core subjects should be converted in to electives. Core subjects only required to maintain minimum civil engineering skills.
4. Building Planning and Drawing CE408 with teaching scheme (3 0 2 0) 4 and Estimating Costing CE609 with teaching scheme (3 1 0 0) 4 should be merged as a single course and introduce in semester VI.
5. Building Planning and Drawing CE408 with teaching scheme (3 0 2 0) 4 may be removed from semester IV and introduce Building Construction and Drawing with same subject code.
6. Geotechnical Engineering CE508 with teaching scheme (3 1 2 0) 5 and Application of Geotechnical Engineering CE608 with teaching scheme (3 1 2 0) 5 should be combined as a single course with relevant content from both the courses.
7. Survey Field visit (Intensive Survey) and PS-1 (PS501) should be optional.
8. Additional Practice School/ Summer Internship/Certificate Course PS701 with teaching scheme (0 0 4 0) 2 should be of duration 8 weeks with credit 6.
9. Practice School PS801 should be optional not restricted to civil core credit. Student may go his/her PS2 in any branch of engineering of his/her choice.
10. Electrical and Electronics Engineering EE101 with teaching scheme (3 0 2 0) 4 and Elements of Engineering CM101 with teaching scheme (2 0 4 0) 4 should be combined as a single course with relevant content and introduce as a new course "Introduction to Engineering".

11. Surveying CE308 with teaching scheme (3 0 2 0) 4 should be introduced in semester II.
12. The new course "Hydraulic Engineering" should be introduced in semester IV in place of Engineering Optimization MA403 with teaching scheme (3 0 2 0) 4.
13. In semester VI, one subject based on entrepreneurship should be introducing as an elective course.
14. Increase the faculty members in civil engineering department as suggested by external members of BOS.

Programme: B. Tech in Computer Science & Engineering

Expert members present in the meeting:

1. Dr Sonal Jain, Associate Professor, JKLU Jaipur
2. Dr. Kavita Choudhary, Associate Professor, JKLU Jaipur.
3. Dr. S. Taruna, Associate Professor, JKLU Jaipur.
4. Prof. Devendra Bhavasar, Assistant Professor, JKLU Jaipur
5. Mr Khalid Kamal Hussain, Principal-Education & Research, Infosys Limited Jaipur.

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

1. Course Application development (CSE304) with teaching scheme (3 1 2 0) has been reintroduced with new name as Web application.
2. Course Database Management Systems (CSE401) with teaching scheme (3 1 2 0), it was suggested that NoSQL should be added.
3. In elective I, PL/SQL programming (CSE529) has been reintroduced with new name as Advance Database.
4. It was suggested that Modular M. Tech in Computer Science engineering does not seem feasible looking to current IT employability in Software industry. Also, M Tech 2 year full time program is more suitable for candidates looking for higher education in research domain. M Tech 2 year full time program is also suitable candidate seeking teaching profession as well as under graduate students looking for job opportunities after pursuing masters.

Programme: B. Tech in Electrical Engineering

Expert members present in the meeting:

1. Dr. Pushpandra Singh, Associate Professor and Head, JKLU, Jaipur.
2. Prof. Jagdish Prasad Sharma, Assistant Professor, JKLU Jaipur

3. Prof. H P Agarwal, Assistant Professor, JKLU Jaipur
4. Prof. Yogesh Rohilla, Assistant Professor, JKLU Jaipur
5. Prof. Manoj Fauzdar, Professor, Department of Electrical Engineering, MNIT, Jaipur
6. Mr. Kunwer Sachdev, Managing Director, Su-Kam Power Systems Ltd., Gurgaon sought leave of absence.

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

1. Electrical & Electronics Engineering (EE101) with teaching scheme (3 0 2 0) 4 theory contents of unit 3rd and 5th may be updated removing the overlap with class-12.
2. In Electrical & Electronics Engineering (EE101) with teaching scheme (3 0 2 0) 4, experiment list may be updated.
3. Tutorial may be included in Electrical & Electronics Engineering (EE101) which change its teaching scheme from (3 0 2 0) 4 to (3 1 2 0) 5.
4. In Network Theory-I (EE301) with teaching scheme (3 0 2 0) 4, experiment list has been updated.
5. From Energy sources (EE403) with teaching scheme (3 1 2 0) 5, tutorial may be removed. It will change the teaching scheme from (3 1 2 0)5 to (3 0 2 0) 4.
6. Energy sources (EE403) with teaching scheme (3 1 2 0) 5, experiment list has revised.
7. Optimization Techniques (MA403) with teaching scheme (3 0 2 0) 4 needs updating of unit 3rd and 4th.
8. Linear control systems (EE501) with teaching scheme (3 1 2 0) 5 is proposed to be renamed as Control System with the revised curriculum, also the experiment list may be revised.
9. Transmission & Distribution of Electrical Power (EE503) with teaching scheme (3 1 0 0) 4 and Industrial Electronics (EE603) with teaching scheme (3 1 2 0) 5 has been interchanged. The new Code of Industrial Electronics is (EE503).
10. Industrial Electronics (EE603) and Transmission & Distribution of Electrical Power (EE503) have been interchanged. The new Code of Transmission & Distribution of Electrical Power is (EE603).
11. Industrial Electronics (EE503) experiment list updated.
12. One new specialization in Energy with new elective courses may be introduced.
13. Two specializations power system and power electronics may be merged.
14. Pspice software should be available and open ware software's needs to be popularized among students.
15. Scope of Adjunct faculty (for specialized courses) for B.Tech and M.Tech programs may be explored.
16. For Project evaluation, the involvement of outside institute expert may be incorporated.

17. All tutorials from M.Tech courses may be removed and all elective subjects scheme may be (3 0 0 0) 3.
18. A new M. Tech. (Modular Program) in Power system was discussed and has been proposed from the next upcoming session.

Programme: B. Tech in Electronics & Communication Engineering

Expert members present in the meeting:
The following members were present during the meeting:

1. Dr. Sandeep Singh Sengar, Associate Professor and Head, JKLU, Jaipur.
2. Dr. D. Seth, Associate Professor, JKLU Jaipur
3. Prof Divanshu Jain, Assistant Professor, JKLU Jaipur Prof (Dr.)
4. Dr. Ashis Tripathy, Assistant Professor, JKLU Jaipur.
5. Prof Divanshu Jain, Assistant Professor, JKLU Jaipur
6. Prof (Dr.) V. K. Chaubey, Professor, Department of Electronics & Communication Engineering, BITS Pilani.
7. Mr. Satyendra Singh, Director & Manufacturing, Head India, Nokia Solutions & Network, Chennai.

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

1. An Internet of things (IoT) should be introduced as a Compulsory course.
2. Remove the word 'Engineering' from Engineering Signals & Systems ECE408 with teaching scheme (3 1 2 0) 5.
3. Add a course "Introduction to Analog Communication" which will be covering the basic of Analog Communication, Information Theory and Statistical Analysis.
4. The Course Digital Communication ECE507 with teaching scheme (3 1 2 0) 5 should add some advanced digital communication methods along with regular syllabus.
5. Principle of Management for Engineers HS302 with teaching scheme (2 0 0 0) 2 should be shifted to 6th or 7th semester from 3rd semester.
6. Microwave Engineering ECE509 with teaching scheme (3 0 2 0) 4 should change as Elective course in place of Compulsory Course.
7. Biomedical Engineering ECE722 with teaching scheme (3 0 0 0) 3 course syllabus should be redesign with electronics application oriented syllabus and rename as "Bioelectronics".
8. Minor Project ECE610 with teaching scheme (0 0 4 2) 4 should be shifted to 5th semester from 6th semester.
9. Major Project ECE705 with teaching scheme (0 0 4 2) 4 should be shifted to 6th semester from 7th semester.

10. A course related to Computer Socket programming should be introduced into the curriculum.
11. Course Structure for Electronics and Communication Engineering (Specialization in Enterprise IT in association with Red Hat) for the Batch 2017-21:
    After all the necessary modifications (1-14) in the Course Structure, add the Red Hat Courses (as proposed by Faculty Members of ECE) to prepare the Complete Course Structure for Electronics and Communication Engineering (Specialization in Enterprise IT in association with Red Hat) for the Batch 2017-21.

Programme: B. Tech in Mechanical Engineering

Expert members present in the meeting:

1. Dr. S.C. Bhaduri, Professor, JKLU Jaipur.
2. Dr. Murari Lal Gupta, Associate Professor and Head, JKLU Jaipur
3. Dr. Priyaranjan Sharma, Assistant Professor, JKLU Jaipur.
4. Dr. Sudhansu Ranjan Das, Assistant Professor, JKLU Jaipur.
5. Prof. Shrinivas Rathod, Assistant Professor, JKLU 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:

1. Course Engineering Thermodynamics (ME301) with teaching scheme (3 1 0 0) 4, the syllabus has been restructured. Restructuring has been done to maintain the continuity, sequence and relation of topics which are given as follows:
    A. Theory of gases and mixtures has been moved from Unit III to Unit II.
    B. Topic 'Properties of pure substances' has been moved to Unit III from Unit II.
    C. First Law and Second law of thermodynamics has been taken to unit IV.
    D. Concept of exergy & anergy and topic of 'Thermodynamic Relations' has been moved to Unit V.
2. Course Strength of Materials (ME306) with teaching scheme (3 1 2 0) 5, the syllabus has been restructured. Restructuring has been done to maintain the continuity, sequence and relation of topics which are given as follows:
    A. Prerequisites (concepts of mechanics) of the subjects have been moved up in unit I.
    B. Principle of superposition and analysis of axially loaded members has been updated in unit I.
    C. Compound stresses and Mohr's Circle has been moved to Unit I from Unit III.

D. Torsion has been shifted from Unit I to Unit III.

3. Course Mechanical Measurements (ME411) with teaching scheme (3 0 2 0) 4, the syllabus has been restructured. Metrology has been added to the syllabus. Metrology is an important subject and is an integral part of the mechanical measurement area.
4. Course Production Technology - I (MA405) with teaching scheme (3 0 2 0) 4, the syllabus has been updated. It has been done to finish the redundancy of the topics studied in previous semesters. And increase the scope of the subject.
   A. Topic of engineering materials has been removed from unit I.
   B. Scope of unit I has been increased to Patterns, moulds and various casting methods.
   C. Topic of Welding is given to a separate unit II.
   D. Topic of grinding machines has been introduced to Unit III.
   E. Metrology section has been removed from this subject.
5. Course Production Technology II (ME607) with teaching scheme (3 0 2 0) 4, the syllabus has been updated. To give student in depth knowledge of the subject.
   A. Sheet Metal operations have been removed from non-conventional machining and have been added to metal forming.
   B. Grinding Machines has been removed from the scope of this subject.
   C. Effects of variable tool life have been added to the topic of metal cutting.
   D. Topics of Indexing mechanism, thread cutting mechanism, and estimation of machining time has been added to the area milling in Unit I.

6. It was advised to add a project and/or seminar in the practical component of a course to provide students some recent learning useful for the job prospective. Allot about 30 marks for this activity in the practical component.
7. It was advised to allot 20 marks in the theory course for a seminar on the advancement in the chosen topic related to the course.

Programme: B.Tech.

Discipline: Common to all Programs

1. Computer based numerical and statistical techniques MA302 with teaching scheme (3 0 2 0) 4 and Engineering Optimization MA403 with teaching scheme (3 0 2 0) 4 should be combined as a single course with relevant content from both the courses.
2. Objected oriented programming CSE202 with teaching scheme (3 0 2 0) 4 should be shifted to semester I.

3. The course English Communication Skills LA101 with teaching scheme (1 0 2 1) 3 and Professional Communication Skills LA201 with teaching scheme (0 1 2 1) 3 should merge in a single course.
4. The course Self-Development and Behavioral Skills HS303 with teaching scheme (0 0 2 1) 2 and Self-Development and Employability Skills HS402 with teaching scheme (0 0 2 1) 2 should contain the Emotional Intelligence and Group Activity related Syllabus.
5. A basis Computer Programming knowledge related course should be introduced in 1st semester.
6. The Course "Foreign Language" should change as audit course in place of Compulsory Course.

Minutes prepared by: Dr. Richa Sharma
Prof. Yogesh Rohilla

Prof. Dr.-Ing. Anupam K Singh
Director-IET and
Chairman, BoS-IET

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

COURSES INTRODUCED

Program Name	Batch	Code	Subject Name	Credits	Year	Semester	Core/ Elective
B Tech CE	2015-19	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech CE	2016-20	MA302	Computer Based Numerical and Statistical Techniques	4	2	3	Core
B Tech CE	2016-20	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech CHE	2014-18	CHE722	Advanced Separation Processes	3	4	7	Elective
B Tech CHE	2014-18	CHE703	Industrial Pollution Abatement	4	4	7	Core
B Tech CHE	2014-18	CHE701	Optimzation of Chemical Processes	4	4	7	Core
B Tech CHE	2014-18	CHE702	Process Utility and Industrial Safety	4	4	7	Core
B Tech CHE	2015-19	CHE507	Mass Transfer Operation-II	5.5	3	5	Core
B Tech CHE	2015-19	CHE508	Process Instrumentation and Control	5	3	5	Core
B Tech CHE	2016-20	CHE307	Fluid Flow Operations & Mechanical Operations	5	2	3	Core
B Tech CSE	2014-18	CSE730	Cyber Laws & Intellectual Property Rights	3	4	7	Elective
B Tech CSE	2014-18	CSE725	Wireless Networks	3	4	7	Elective
B Tech CSE	2015-19	CSE506	System Analysis & Design	4	3	5	Core
B Tech CSE	2016-20	CSE304	Application Development	5	2	3	Core
B Tech CSE	2016-20	CSESP301	Object Oriented Programming Using Java	5	2	3	Core
B Tech CSE	2017-21	IBM101	Software Foundation and Programming	4	1	1	Core
B Tech ECE	2014-18	ECE727	Radar and Satellite Communication	3	4	7	Elective
B Tech ECE	2016-20	ECE304	Control System	3	2	3	Core
B Tech EE	2015-19	EE504	Electrical Signal & Systems	4	3	5	Elective
B Tech EE	2016-20	EE301	Network Theory-I	4	2	3	Core
B Tech M Tech CSE	2013-18	MTCS433	Advanced Computer Graphics	4	5	9	Elective
B Tech M Tech CSE	2013-18	MTCS429	Human Computer Interaction	4	5	9	Elective
B Tech M Tech CSE	2013-18	MTCS436	Intelligent System	4	5	9	Elective
B Tech M Tech CSE	2015-20	MTCS122	Internet technology	3	3	5	Elective
B Tech ME	2016-20	ME308	Fluid Mechanics & Machines	5	2	3	Core
M Tech Th Engg	2017-19	TEMTECH101	Advanced Thermodynamics	4	1	1	Core
M Tech Th Engg	2017-19	TEMTECH103	Convective Heat & Mass Transfer	4	1	1	Core
M Tech Th	2017-19	TEMTE	Experimental Methods in Thermal	4	1	1	Core

Engg		CH104	Engineering				
M Tech Th Engg	2017-19	TEMTE CH105	Numerical Methods in Engineering	4	1	1	Core
M Tech Th Engg	2017-19	TEMTE CH102	Viscous Fluid Flows	4	1	1	Core
M TechTh Engg	2017-19	TEMTE CH201	Thermal Systems Simulation and Design	4	1	2	Core
M TechTh Engg	2017-19	TEMTE CH202	Energy Management	4	1	2	Core
M TechTh Engg	2017-19	TEMTE CH221	Advanced Refrigeration and Air conditioning	4	1	2	Elective
M TechTh Engg	2017-19	TEMTE CH223	Design of Heat Exchange Equipment	4	1	2	Elective
M TechTh Engg	2017-19	TEMTE CH224	Thermal Environmental Engineering	4	1	2	Elective

COURSES DROPPED

Progarm Name	Batch	Code	Subject Name	Credits	Year	Semester	Core/ Elective
B Tech CE	2015-19	CE701	Construction Project Management	4	4	7	Core
B Tech CE	2015-19	CE702	Geoinformatics	4	4	7	Core
B Tech CE	2015-19	CE705	Infrastructure Planning and Finance Management	3	4	7	Core
B Tech CE	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech CE	2016-20	CE507	Urban and Regional Planning	4	3	5	Core
B Tech CE	2016-20	CE508	Geotechnical Engineering-I	5	3	5	Core
B Tech CE	2016-20	CE524	Irrigation Engineering	3	3	5	Elective
B Tech CE	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech CE	2017-21	CE304	Engineering Geology & Construction Materials	4	2	3	Core
B Tech CE	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech CE	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech CE	2018-22	CE102	Engineering Drawing	3	1	1	Core
B Tech CE	2018-22	CM101	Elements of Engineering	4	1	1	Core
B Tech CE	2018-22	EE101	Electrical & Electronics Engineering	4	1	1	Core
B Tech CE	2018-22	LA101	English Communication Skills	3	1	1	Core
B Tech CE	2018-22	MA102	Calculus and Linear Algebra	4	1	1	Core
B Tech CE	2018-22	PH101	Engineering Physics	5	1	1	Core
B Tech CHE	2015-19	CHE701	Optimzation of Chemical Processes	4	4	7	Core
B Tech CHE	2015-19	CHE722	Advanced Separation Processes	3	4	7	Elective
B Tech CHE	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech CHE	2016-20	CHE503	Process Modeling and Simulation	5	3	5	Core

B Tech CHE	2016-20	CHE505	Chemical Engineering Materials	3	3	5	Core
B Tech CHE	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech CHE	2017-21	CHE301	Chemical Process Calculations	4	2	3	Core
B Tech CHE	2017-21	CHE305	Chemical Engineering Thermodynamics	4	2	3	Core
B Tech CHE	2017-21	CHE306	Chemical Engineering Materials	3	2	3	Core
B Tech CHE	2017-21	CHE307	Fluid Flow Operations & Mechanical Operations	5	2	3	Core
B Tech CHE	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech CHE	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech CSE	2015-19	CSE701	Data Warehousing & Data Mining	4	4	7	Core
B Tech CSE	2015-19	CSE725	Wireless Networks	3	4	7	Elective
B Tech CSE	2015-19	CSE730	Cyber Laws & Intellectual Property Rights	3	4	7	Elective
B Tech CSE	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech CSE	2016-20	CSE505	Web Technologies	4	3	5	Core
B Tech CSE	2016-20	CSE506	System Analysis & Design	4	3	5	Core
B Tech CSE	2016-20	CSE524	Graph Theory	3	3	5	Elective
B Tech CSE	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech CSE	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech CSE	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech CSE	2018-22	CE102	Engineering Drawing	3	1	1	Core
B Tech CSE	2018-22	CH101	Engineering Chemistry	5	1	1	Core
B Tech CSE	2018-22	CM101	Elements of Engineering	4	1	1	Core
B Tech CSE	2018-22	EE101	Electrical & Electronics Engineering	4	1	1	Core
B Tech CSE	2018-22	IBM101	Software Foundation and Programming	4	1	1	Core
B Tech CSE	2018-22	LA101	English Communication Skills	3	1	1	Core
B Tech CSE	2018-22	MA102	Calculus and Linear Algebra	4	1	1	Core
B Tech ECE	2015-19	CSE728	Digital Image Processing	3	4	7	Elective
B Tech ECE	2015-19	ECE701	Antenna & Wave Propagation	4	4	7	Core
B Tech ECE	2015-19	ECE702	Wireless Communication	3	4	7	Core
B Tech ECE	2015-19	ECE727	Radar and Satellite Communication	3	4	7	Elective
B Tech ECE	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech ECE	2016-20	ECE502	Analog Commuincations	4	3	5	Core
B Tech ECE	2016-20	ECE504	Microwave Engineering-I	3	3	5	Core
B Tech ECE	2016-20	ECE506	Antenna & Wave Propagation	4	3	5	Core
B Tech ECE	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech ECE	2017-21	ECE304	Control System	3	2	3	Core

B Tech ECE	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech ECE	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech ECE	2018-22	CE102	Engineering Drawing	3	1	1	Core
B Tech ECE	2018-22	CH101	Engineering Chemistry	5	1	1	Core
B Tech ECE	2018-22	LA101	English Communication Skills	3	1	1	Core
B Tech ECE	2018-22	MA102	Calculus and Linear Algebra	4	1	1	Core
B Tech ECE	2018-22	ME201	Engineering Mechanics	4	1	1	Core
B Tech EE	2015-19	EE701	Electrical Drive & Control	4	4	7	Core
B Tech EE	2015-19	EE702	High Voltage Engineering	4	4	7	Core
B Tech EE	2015-19	EE703	Testing and Commissioning of Electrical Machines	5	4	7	Core
B Tech EE	2015-19	EE721	Power Quality & Utilization of Electrical Power	4	4	7	Elective
B Tech EE	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech EE	2016-20	EE503	Modeling & Simulation	4	3	5	Core
B Tech EE	2016-20	EE504	Electrical Signal & Systems	4	3	5	Elective
B Tech EE	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech EE	2017-21	EE301	Network Theory-I	4	2	3	Core
B Tech EE	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech EE	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech EE	2018-22	CE102	Engineering Drawing	3	1	1	Core
B Tech EE	2018-22	CH101	Engineering Chemistry	5	1	1	Core
B Tech EE	2018-22	LA101	English Communication Skills	3	1	1	Core
B Tech EE	2018-22	LA203	Creativity and Design Thinking	2	1	1	Core
B Tech EE	2018-22	MA102	Calculus and Linear Algebra	4	1	1	Core
B Tech EE	2018-22	ME201	Engineering Mechanics	4	1	1	Core
B Tech ME	2015-19	HS701	Principles of Economics	3	4	7	Core
B Tech ME	2015-19	ME725	Industrial Pollution & Control	3	4	7	Elective
B Tech ME	2015-19	ME737	Waste Heat Recovery & Management	3	4	7	Elective
B Tech ME	2016-20	LA501	Effective Public Speaking and Employability Skills	2	3	5	Core
B Tech ME	2016-20	ME505	Production Planning & Control	3	3	5	Core
B Tech ME	2016-20	ME506	Industrial Engineering & Operation Research	4	3	5	Core
B Tech ME	2016-20	ME507	Dynamics of Machines	4	3	5	Core
B Tech ME	2017-21	HS302	Principles of Management for Engineers	2	2	3	Core
B Tech ME	2017-21	HS303	Self-Development and Behavioral Skills	2	2	3	Core
B Tech ME	2017-21	ME305	Machine Drawing	2	2	3	Core
B Tech ME	2018-22	CE102	Engineering Drawing	3	1	1	Core

B Tech ME	2018-22	CM101	Elements of Engineering	4	1	1	Core
B Tech ME	2018-22	EE101	Electrical & Electronics Engineering	4	1	1	Core
B Tech ME	2018-22	LA101	English Communication Skills	3	1	1	Core
B Tech ME	2018-22	MA102	Calculus and Linear Algebra	4	1	1	Core
B Tech ME	2018-22	PH101	Engineering Physics	5	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH101	Advanced Thermodynamics	4	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH102	Viscous Fluid Flows	4	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH103	Convective Heat & Mass Transfer	4	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH104	Experimental Methods in Thermal Engineering	4	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH105	Numerical Methods in Engineering	4	1	1	Core
M Tech Th Engg	2018-20	TEMTE CH201	Thermal Systems Simulation and Design	4	1	2	Core
M Tech Th Engg	2018-20	TEMTE CH202	Energy Management	4	1	2	Core
M Tech Th Engg	2018-20	TEMTE CH221	Advanced Refrigeration and Air conditioning	4	1	2	Elective
M Tech Th Engg	2018-20	TEMTE CH223	Design of Heat Exchange Equipment	4	1	2	Elective
M Tech Th Engg	2018-20	TEMTE CH224	Thermal Environmental Engineering	4	1	2	Elective

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