

## **JK LAKSHMIPAT UNIVERSITY, Jaipur**

### **Institute of Engineering & Technology: Board of Studies: MINUTES: 13.10.2018**

Minutes of the 8<sup>th</sup> Meeting of the Board of Studies of Institute of Engineering & Technology held in the IM- Amphitheater, JK Lakshmipat University, Jaipur on Saturday, 13<sup>th</sup> October, 2018 at 10.00 A.M.

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#### **Present:**

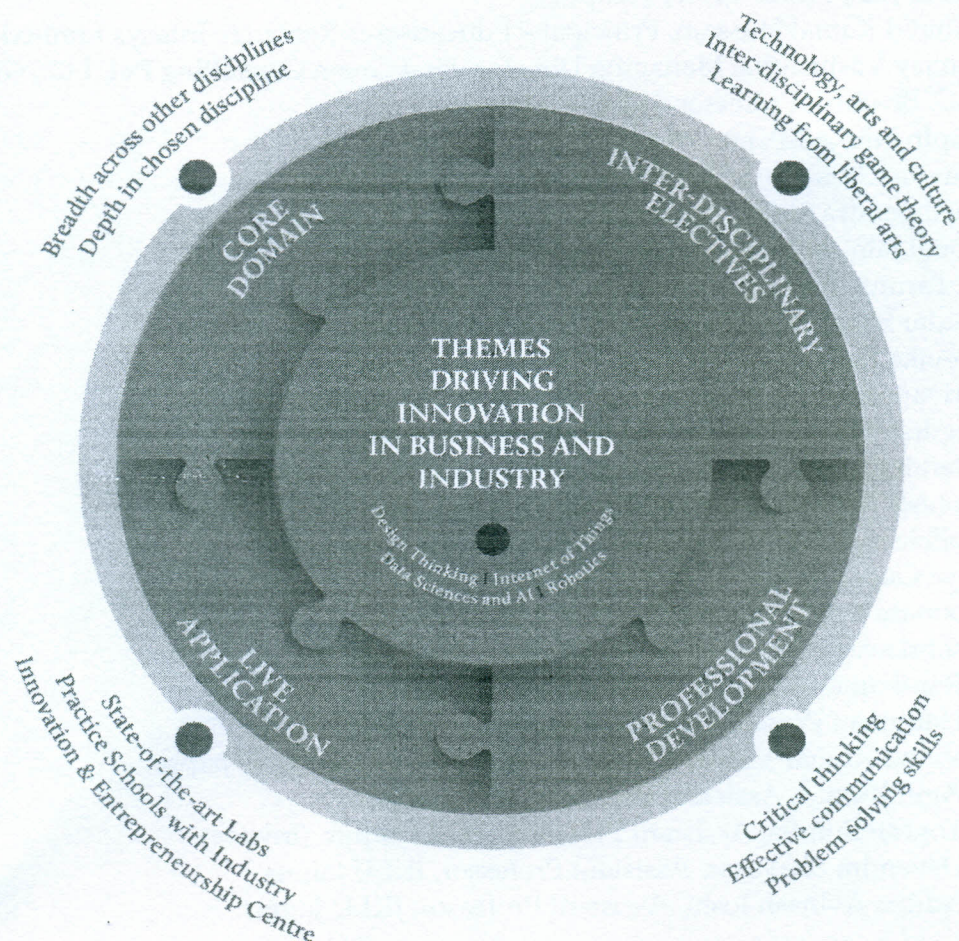
1. Prof. Sanjay Goel, Chairman BOS, IET
2. Dr. Ashu Jain, Professor, IIT Kanpur.
3. Mr. Khalid Kamal Hussain, Principal – Education & Research, Infosys Limited Jaipur.
4. Dr. Sanjay Vashishtha, Managing Director, First Green Consulting Pvt. Ltd., Gurgaon.
5. Dr. S.C. Bhaduri, Professor, JKL U Jaipur.
6. Dr. Vipin Jain, Associate Professor, JKL U Jaipur.
7. Dr. Kavita Choudhary, Associate Professor, JKL U Jaipur.
8. Dr. Pushpendra Singh, Associate Professor, JKL U Jaipur.
9. Dr. Sonal Jain, Associate Professor, JKL U Jaipur.
10. Dr. S. Taruna, Associate Professor, JKL U Jaipur.
11. Dr. Kedar Sharma, Associate Professor, JKL U Jaipur.
12. Dr. Devika Kataria, Associate Professor, JKL U Jaipur.
13. Dr. Priyaranjan Sharma, Assistant Professor, JKL U Jaipur.
14. Dr. Jagdish Prasad Sharma, Assistant Professor, JKL U Jaipur.
15. Dr. Jitendra Kumar Singh, Assistant Professor, JKL U Jaipur.
16. Dr. Ashish Tripathi, Assistant Professor, JKL U Jaipur.
17. Dr. Rajlakshmi Nayak, Assistant Professor, JKL U Jaipur.
18. Dr. Jaya Gupta, Assistant Professor, JKL U Jaipur.
19. Dr. Poonam Vyas, Assistant Professor, JKL U Jaipur.
20. Dr. Shahnawaz Khan, Assistant Professor, JKL U Jaipur.
21. Prof. Ramkumar Agrawal, Assistant Professor, JKL U Jaipur.
22. Prof. Hanuman Prasad Agrawal, Assistant Professor, JKL U.
23. Prof. Vinod Kumar Vishwakarma, Assistant Professor, JKL U Jaipur.
24. Prof. Amit Kumar, Assistant Professor, JKL U Jaipur.
25. Prof. Yogesh Rohilla, Assistant Professor, JKL U Jaipur. (invitee)
26. Prof. Devendra Bhavasar, Assistant Professor, JKL U Jaipur.
27. Prof. Aditya Ayinash Joshi, Assistant Professor, JKL U Jaipur.

The following members requested leave of absence:

1. Dr. S.L. Soni, Professor, Mechanical Engineering, MNIT Jaipur.
2. Dr. V. K. Choubey, Professor, Department of Electronics & Communication, BITS Pilani.
3. Dr. R Mukhopadhyay, Director R&D & CEO, HASETRI, Kankroli.
4. Dr. Pramod Kr Singh, Associate Professor, Department of Computer Science, IITM Gwalior.
5. Prof. Manoj Fauzdar, Professor, Department of Electrical Engineering, MNIT, Jaipur.
6. Mr. Rajiv Jain, Gulshan Rai & Co., Jaipur.



1. Dr. R. L. Raina, Vice Chancellor JKLU, extended heartfelt welcome to all Board of Studies (BoS) members and shared vision of the university "as to be most innovative institution of higher learning and research" and solicited support and continued guidance from all the members to help the university in realizing the mission.
2. He then gave a broad overview of the progress made by the university on its academic agenda after the last BoS meeting which was held on May 19, 2018. He explained the Learning wheel of JKLU.



3. Vice Chancellor pointed about the necessity of more offerings of courses in the area of Liberal Arts and Science subjects as open electives. He briefed about initiatives taken by the Center for Communication & Critical Thinking and the Center for Data Science.



4. Members appreciated the efforts of the university in implementing Project Based Learning (PBL) in 2018 first semester of IET for two of its courses, namely (i) Calculus for Engineers and (ii) Design and Prototype and was also appreciated of its efforts to run two more PBL courses in the second semester, namely (i) Computational Data Analysis and (ii) Fundamentals of Automation Engineering.
5. Similarly, members appreciated the contribution of the Center for Communication & Critical Thinking (CCCT) for offering its courses for IET students in different semesters like: The power of storytelling (I Sem), Effective communication Design (III Sem), Personal communication (V Sem) and Workplace & Interpersonal Communication (VII Sem).
6. He then introduced the newly joined faculty members, Dr. Gustavo Sanchez (Visiting Professor in Electrical & electronics), Dr. Jyoti Prakash CR Naidu Dean (Research & Development), Mr. Abhishek Vyas (Lecturer in Computer Science & Engineering) and Director IET Prof. Sanjay Goel to the BoS members.
7. Prof. Sanjay Goel, Director IET and Chairman-BoS extended a welcome note to all the members. He explained the necessity of hands-on-learning in this technology era. He explained the aim and necessity of syllabus revision to all board members. The new syllabus for 2018-22 batch has strong focus on experiential learning and building professional competencies through incorporation of cutting edge technologies. Prof. Goel also explained the academic contribution of IET faculty member in delivering project based learning (PBL) courses and deliver courses by Center of Communication and Critical Thinking (CCCT).

After a joint session on highlighting agenda of the BoS, all BoS members proceeded further for discussion on their respective department's 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:

#### **Discipline: Common to all Programs**

1. Project based learning (PBL) courses were presented with their evaluation scheme, pedagogy adopted, and student performance & feedback. BoS member appreciated the steps taken in developing and adoption of these courses
2. It was advised to conduct more workshops for the students on latest software technologies currently used by industries.
3. It was advised to take some inputs from industry about current needs in technology and try to incorporate them in curriculum.
4. Members showed their agreement to increase the number of courses and credits in Liberal Arts and Science field and Open Elective field.



### **Programme: B. Tech in Civil Engineering**

Expert members present in the meeting:

1. Prof. Sanjay Goel, Director IET and Chairman BOS.
2. Dr. Kedar Sharma, Associate Professor, JKLJ Jaipur.
3. Prof. Vinod Kumar Vishwakarma, Assistant Professor, JKLJ Jaipur.
4. Prof. Amit Kumar, Assistant Professor, JKLJ Jaipur.
5. Dr. Ashu Jain, Professor, Department of Civil engineering, IIT Kanpur.

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

1. The feedback from Civil Engineering graduate of JKLJ should be taken, which could be helpful while considering the modification in B.Tech Civil Engineering curriculum at JKLJ. This may be done through the "Alumni Association" of JKLJ. The suggestion may be applicable to B.Tech program in other specialization also.
2. The intake of undergraduates' students in Civil Engineering has been on decline at JKLJ over the years.
3. The committee discussed this aspect at length and proposed the following two programs, which may be more attractive:
  - a. B.Tech Civil Engineering specialization in Structural Engineering
  - b. B.Tech Civil Engineering specialization in Construction Management
4. Mr. Manoj Mittal President Indian Association of Structural Engineer (IASE) and Chief Mentor/Owner, SHELTER Consulting Engineers should be invited to member of BOS (Civil Engineering). Also he should be requested to organize a workshop/event at JKLJ to motivate the students towards the profession of Civil Engineering.
5. Efforts should be made to promote industry academia interaction in general and Civil Engineering in particular.

### **Programme: B. Tech in Computer Science & Engineering**

Expert members present in the meeting:

1. Dr. Sonal Jain, Associate Professor, JKLJ Jaipur.
2. Dr. S. Taruna, Associate Professor, JKLJ Jaipur.
3. Dr. Kavita Choudhary, Associate Professor, JKLJ Jaipur.
4. 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 and Engineering. The following suggestions were made by members:

1. Concept of Agile technology should be incorporated in Software engineering (CSE604).
2. NO-SQL should be included in Database Management systems (CSE401).



3. Statistical computing with SAS (CSE429) should be open for other departments not CSE branch.
4. Latest text book should be used for Management Information System (CSE521) for latest concept incorporation.
5. The course selected by students under Independent study should be prior approved with competent authority.

### **Programme: B.Tech. in Electrical and Electronics Engineering**

Expert members present in the meeting:

1. Dr. Devika Kataria, Associate Professor, JKL U Jaipur.
2. Dr. Pushpandra Singh, Associate Professor, JKL U, Jaipur.
3. Dr. Jagdish Prasad Sharma, Assistant Professor, JKL U Jaipur.
4. Prof. H P Agarwal, Assistant Professor, JKL U Jaipur.
5. Dr. Ashish Tripathi, Assistant Professor, JKL U Jaipur.

The members approved the syllabus and content of the B.Tech. program in Electrical and Electronics Engineering. Following suggestions were made by members:

### **B.Tech. in Electrical Engineering**

#### **Batch 2016-20**

1. The subjects for semester-VI as per the revised curriculum are Power System Analysis (EE601), Power System Switchgear and Protection (EE602) and Industrial Electronics (EE603). The syllabus of Power System Switchgear and protection (EE602) is updated and recommended for approval.
2. Smart Grid Technology (EE710), Power Electronics & Application in Renewable Energy (EE703) and Advanced Control System (EE712) have been added as Open Elective II. The syllabus of Smart Grid Technology (EE710) is updated and recommended for approval.

#### **Batch 2017-21**

1. The subjects for semester-IV as per the revised curriculum are Analog Linear ICs (ECE 489), Measurement & Instrumentation (EE303) and Electrical Machines -I (EE302). The syllabi of Analog Linear ICs (ECE489) and Measurement & Instrumentation (EE303) are updated and are recommended for approval. It is also recommended to add Electrical Machine-II (EE401) in Semester-V in place of Advance in Power delivery (EE706).
2. It is recommended that, Advance in Power delivery (EE706) is placed as a compulsory subject in Semester - VII and Testing and Commissioning of electrical equipment (EE732) be shifted in the same semester as an elective subject.



## **B. Tech in Electronic and Communication Engineering**

### **Batch 2016-20**

1. The subjects for semester-VI as per the revised curriculum are Linear Integrated circuit (ECE 609), Wireless communication and network (ECE731) & Microwave Engineering (ECE 509).
2. Open elective -II Programmable Logic controller (ECE480), Organic Electronics (ECE748) and Information Theory and Coding (ECE 733). These syllabi are recommended for approval.

### **Batch 2017-21**

1. The subjects for semester-IV as per the revised curriculum are Analog Linear IC (ECE489), Signals & Systems (ECE408) and Electromagnetic field theory (ECE403). These syllabus of Analog Linear ICs (ECE489) has been updated and are recommended for approval.
2. Open elective - I Programmable Logic controller (ECE480), MEMS and Smart sensors (ECE 746) and VHDL Programming (ECE 739). The syllabi are updated and are recommended for approval.

Department has decided to run some MOOCs courses on following topics:

1. Safety in the Utility Industry (Coursera): University at Buffalo
2. Battery State of Charge Estimation (Coursera): University of Colorado System
3. Fundamentals of Digital Image and Video Processing (Coursera): Northwestern University

## **Programme: B. Tech in Mechanical Engineering**

Expert members present in the meeting:

1. Dr. S C Bhaduri, Professor & Coordinator, JKL U Jaipur.
2. Dr. Priyaranjan Sharma, Assistant Professor, JKL U Jaipur.
3. Dr. Rajlakshmi Nayak, Assistant Professor, JKL U Jaipur.
4. Dr. Jitendra Kumar Singh, Assistant Professor, JKL U Jaipur.
5. Prof. Ramkumar Agrawal, Lecturer, JKL U Jaipur.
6. Prof. Aditya Joshi, Assistant Professor, JKL U Jaipur.
7. 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. The new scheme for Batch 2018-22 has been approved in principle. Syllabus of higher semesters to be worked out and put up to experts for approval.
2. PVsyst software training originated and conducted by ME department as an open elective for Batch 2016-20 and Batch 2017-21 should be started from the next semester.



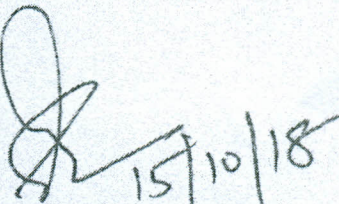
3. Solar energy courses as an open elective should be Batch 2016-20 and Batch 2017-21 should be started.
4. Approved new scheme with syllabus for Batch 2016-20 and Batch 2017-21 is attached herewith.

#### **Department of Science and Liberal Arts**

Expert members present in the meeting:

1. Dr. Vipin Kumar Jain, Associate Professor, JKLU Jaipur.
2. Dr. Jaya Gupta, Assistant Professor, JKLU Jaipur.
3. Dr. Poonam Vyas, Assistant Professor, JKLU Jaipur.
4. Dr. Shahnawaz Khan, Assistant Professor, JKLU Jaipur.

Course structure and syllabus of all branches of B.Tech (Semester I - VII), M. Tech-Health, Safety and Environment Engineering (Semester-II) of the Department of Science and Liberal Arts were discussed in the meeting. There were no objection/comments in any of the course structure and syllabus. Hence, all courses offered by the Department were approved by the Board members.

  
15/10/18  
(Prof. Sanjay Goel)  
Chairman, BoS



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

### COURSES INTRODUCED

Program Name	Batch	Code	Subject Name	Credits	Year	Semester	Core/ Elective
B Tech CE	2016-20	LS2101	A Critical Examination of Ethics & Development	1	3	6	Open Elective
B Tech CE	2016-20	LS2102	Business and Sustainability	1	3	6	Open Elective
B Tech CE	2016-20	EE611	Electrical Safety	3	3	6	Open Elective
B Tech CE	2016-20	ID304	Intelligent Automation	2	3	6	Core
B Tech CE	2017-21	CE402	Engineering Geology and Building Construction	4	2	4	Core
B Tech CE	2017-21	CE403	Hydraulic Engineering	4	2	4	Core
B Tech CSE	2016-20	IM411	Advance Course in Entrepreneurship	3	3	6	Open Elective
B Tech CSE	2016-20	CSECC601	Application Security	4	3	6	Core
B Tech CSE	2016-20	CSE429	Computing with SAS	3	3	6	Elective
B Tech CSE	2016-20	CSE601	Cyber Security	3	3	6	Elective
B Tech CSE	2016-20	CSE428	Enterprise Programming using Java	3	3	6	Open Elective
B Tech CSE	2016-20	ECE480	Industrial IoT	3	3	6	Open Elective
B Tech CSE	2016-20	MA401	Integral Transforms	3	3	6	Open Elective
B Tech CSE	2016-20	CSEBD601	Predictive Analytics Modeler	4	3	6	Core
B Tech CSE	2018-22	BES201	Computational Data Analysis	10	1	2	Core
B Tech CSE	2018-22	PH202	Experimental Physics	3	1	2	Core
B Tech CSE	2018-22	BES202	Fundamentals of Automation Engineering	6	1	2	Core
B Tech CSE	2018-22	CSESP202	Python Programming	2	1	2	Core
B Tech ECE	2016-20	EEE610	Automation Projects	2	3	6	Additional
B Tech ECE	2016-20	ECE509	Microwave Engineering	3	3	6	Elective
B Tech ECE	2016-20	ECE731	Wireless communication & Networks	3	3	6	Core
B Tech ECE	2017-21	ECE489	Analog Linear Integrated Circuits	5	2	4	Core
B Tech ECE	2017-21	ECE408	Signals & Systems	5	2	4	Core
B Tech M Tech CSE	2015-20	CSE888	Advanced Algorithms and Complexity	5	4	8	Elective
B Tech M Tech CSE	2015-20	CSE889	Advanced Probability and Statistics	3	4	8	Elective



**COURSES DROPPED**

<b>Program Name</b>	<b>Batch</b>	<b>Code</b>	<b>Subject Name</b>	<b>Credits</b>	<b>Year</b>	<b>Semester</b>	<b>Core/ Elective</b>
B Tech CE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech CE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech CE	2017-21	CE511	Transportation Engineering-I	4	3	6	Core
B Tech CE	2017-21	CE608	Geotechnical Engineering-II	4	3	6	Core
B Tech CE	2017-21	CE609	Estimating Costing & Evaluation Engineering	4	3	6	Core
B Tech CE	2017-21	EE611	Electrical Safety	3	3	6	Open Elective
B Tech CE	2017-21	LS2101	A Critical Examination of Ethics & Development	1	3	6	Open Elective
B Tech CE	2017-21	LS2102	Business and Sustainability	1	3	6	Open Elective
B Tech CE	2018-22	CCT202	Articulation and Elocution	Audit	2	4	Audit
B Tech CE	2018-22	CCT401	Advanced Communication & Interpersonal Dynamics	2	2	4	Core
B Tech CE	2018-22	CE402	Engineering Geology and Building Construction	4	2	4	Core
B Tech CE	2018-22	CE403	Hydraulic Engineering	4	2	4	Core
B Tech CE	2018-22	CE405	Structure Analysis-II	4	2	4	Core
B Tech CE	2018-22	CE409	Concrete Technology	4	2	4	Core
B Tech CHE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech CHE	2017-21	CHE603	Process Equipment Design	5	3	6	Core
B Tech CHE	2017-21	CHE608	Chemical Reaction Engineering-II	3	3	6	Elective
B Tech CHE	2017-21	EE611	Electrical Safety	3	3	6	Open Elective
B Tech CHE	2017-21	ME639	Computational Fluid Dynamics	4	3	6	Open Elective
B Tech CSE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech CSE	2017-21	CSE504	Theory of Computation	3	3	6	Core
B Tech CSE	2017-21	CSE604	Software Engineering	4	3	6	Core
B Tech CSE	2017-21	CSECC601	Application Security	4	3	6	Core
B Tech CSE	2017-21	CSE429	Computing with SAS	3	3	6	Elective
B Tech CSE	2017-21	CSE601	Cyber Security	3	3	6	Elective
B Tech CSE	2017-21	ECE480	Industrial IoT	3	3	6	Open Elective



B Tech CSE	2017-21	HS401	Critical Interpretation of Literature and Cinema	3	3	6	Open Elective
B Tech CSE	2017-21	MA401	Integral Transforms	3	3	6	Open Elective
B Tech CSE	2018-22	CCT202	Articulation and Elocution	Audit	2	4	Audit
B Tech CSE	2018-22	CCT401	Advanced Communication & Interpersonal Dynamics	2	2	4	Core
B Tech CSE	2018-22	CSE401	Database Management Systems	4	2	4	Core
B Tech CSE	2018-22	CSE402	Discrete Structures	4	2	4	Core
B Tech CSE	2018-22	CSESP401	Information Management Basics	4	2	4	Core
B Tech CSE	2019-23	CCT201	Fundamentals of Critical Thinking	2	1	2	Core
B Tech CSE	2019-23	CCT202	Articulation and Elocution	Audit	1	2	Core
B Tech CSE	2019-23	ID201	Environmental Studies	1	1	2	Core
B Tech CSE	2019-23	PH202	Experimental Physics	3	1	2	Core
B Tech ECE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech ECE	2017-21	ECE609	Linear Integrated circuits	5	3	6	Core
B Tech ECE	2017-21	ECE731	Wireless communication & Networks	3	3	6	Core
B Tech ECE	2017-21	CSE601	Cyber Security	3	3	6	Open Elective
B Tech ECE	2017-21	ECE480	Industrial IoT	3	3	6	Open Elective
B Tech ECE	2017-21	MA401	Integral Transforms	3	3	6	Open Elective
B Tech ECE	2018-22	CCT202	Articulation and Elocution	Audit	2	4	Audit
B Tech ECE	2018-22	CCT401	Advanced Communication & Interpersonal Dynamics	2	2	4	Core
B Tech ECE	2018-22	ECE403	Electromagnetic Field Theory	4	2	4	Core
B Tech ECE	2018-22	ECE408	Signals & Systems	5	2	4	Core
B Tech ECE	2018-22	ECE489	Analog Linear Integrated Circuits	5	2	4	Core
B Tech ECE	2018-22	CSE429	Computing with SAS	3	2	4	Open Elective
B Tech ECE	2018-22	CSE601	Cyber Security	3	2	4	Open Elective
B Tech ECE	2018-22	ECE480	Industrial IoT	3	2	4	Open Elective
B Tech ECE	2018-22	EE611	Electrical Safety	3	2	4	Open Elective
B Tech ECE	2018-22	HS401	Critical Interpretation of Literature and Cinema	3	2	4	Open Elective



B Tech ECE	2018-22	MA401	Integral Transforms	3	2	4	Open Elective
B Tech ECE	2018-22	MA403	Engineering Optimization	3	2	4	Open Elective
B Tech EE	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech EE	2017-21	EE601	Power System Analysis	4	3	6	Core
B Tech EE	2017-21	EE602	Power System Switchgear & Protection	4	3	6	Core
B Tech EE	2017-21	EE611	Electrical Safety	3	3	6	Open Elective
B Tech EE	2018-22	CCT202	Articulation and Elocution	Audit	2	4	Audit
B Tech EE	2018-22	CCT401	Advanced Communication & Interpersonal Dynamics	2	2	4	Core
B Tech EE	2018-22	EE303	Measurements & Instrumentation	4	2	4	Core
B Tech EE	2018-22	EE484	Electrical Machines-I	4	2	4	Core
B Tech EE	2018-22	ECE480	Industrial IoT	3	2	4	Open Elective
B Tech EE	2018-22	EE611	Electrical Safety	3	2	4	Open Elective
B Tech EEE	2019-23	CCT201	Fundamentals of Critical Thinking	2	1	2	Core
B Tech EEE	2019-23	CCT202	Articulation and Elocution	Audit	1	2	Core
B Tech EEE	2019-23	ID201	Environmental Studies	1	1	2	Core
B Tech EEE	2019-23	PH202	Experimental Physics	3	1	2	Core
B Tech ME	2017-21	CCT601	Personal Branding & Workplace Communication	2	3	6	Core
B Tech ME	2017-21	ME604	Design of Machine Elements - II	4	3	6	Core
B Tech ME	2017-21	EE611	Electrical Safety	3	3	6	Open Elective
B Tech ME	2017-21	HS401	Critical Interpretation of Literature and Cinema	3	3	6	Open Elective
B Tech ME	2017-21	ME639	Computational Fluid Dynamics	4	3	6	Open Elective
B Tech ME	2018-22	CCT202	Articulation and Elocution	Audit	2	4	Audit
B Tech ME	2018-22	CCT401	Advanced Communication & Interpersonal Dynamics	2	2	4	Core
B Tech ME	2018-22	ME408	Heat Transfer	4	2	4	Core
B Tech ME	2018-22	ME410	Material Science & Engineering	2	2	4	Core
B Tech ME	2018-22	ME411	Mechanical Measurements	4	2	4	Core
B Tech ME	2018-22	HS401	Critical Interpretation of Literature and Cinema	3	2	4	Open Elective



B Tech ME	2019-23	CCT202	Articulation and Elocution	Audit	1	2	Audit
B Tech ME	2019-23	CCT201	Fundamentals of Critical Thinking	2	1	2	Core
B Tech ME	2019-23	ID201	Environmental Studies	1	1	2	Core
B Tech ME	2019-23	PH202	Experimental Physics	3	1	2	Core



(Prof. Sanjay Goel)

Chairman, BoS