### Dr. Ambedkar Institute of Technology Department of Electrical and Electronics Engineering

The NAAC documents enclosed are verified and approved.

HODIO 5/11/22

Dr. Ambedkar Institute of Technology

Record of Section 1999. Bengaluru-580056

# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE (An Autonomous Institution Affiliated to VTU, Belgaum)

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### **Minutes of BOS Meeting**

### Agenda:

- 1. Finalizing the Scheme and Syllabus of UG for 2017-18 batch.
- 2. Reviewing the Scheme and Syllabus of existing batches.
- 3. Approval of Panel of examiners, Paper Setters, Practical Examination and Theory Valuation.
- 4. Finalizing the Scheme and Syllabus of PG (Power Electronics) for 2017-18 batch and to revise the Scheme and Syllabus of existing batches.

The meeting was convened on 25.03.2017 at10.00 AM in the Research Laboratory. Chairman welcomed all the members of the Board of Studies in Electrical and Electronics Engineering. Chairman informed the members about-

- ▶ Preliminary BOS meetings were conducted on 15<sup>th</sup>, 18<sup>th</sup> & 20<sup>th</sup> March 2017, with student members of UG and PG programs and the course co-ordinators.
- A draft copy of scheme and syllabus was framed by considering their suggestions to make the courses more relevant.
- > The members approved the scheme and syllabus with the following academic reforms.

### RESOLUTIONS:

- 1. 3<sup>rd</sup> semester: Applicable to 2016-2017 batch.
  - a. As per the regulation of Dr AIT (Autonomous), the total number of registered credits even after withdrawal of course shall be at least 20 (13.3.2- Academic regulation 2016-17). It was resolved to increase, the 3<sup>rd</sup> semester credits from 23 to 24, to allow the students to drop / withdraw any course. This has been resolved by increasing the credits of the core subject **EE32Logic Design** from 3 to 4.
  - b. The contents of the core subject EE32 Logic Design were revised.

- 5<sup>th</sup> semester: Applicable to 2015 batch and onwards.
  - a. To maintain total credits of 200 (7.5- Academic regulation 2016-17), it was resolved reduce 5th semester credits to 25 from 26. In view of this, core subject EE52 Powe Electronics - II is reduced to 3 credits from 4.
  - b. The contents of the core course subject EE52 Power Electronics II were revised.
- 3. 6<sup>th</sup> semester: Applicable to 2015 batch and onwards.

It was resolved to shift Elective subject Programmable Logic Controllers from group-B of 5th semester to - group C of 6th semester, as this subject has advance topics.

- 4. 7<sup>th</sup> semester: Applicable to 2016 batch and onwards.
  - a. It was resolved to drop the course EE737 Alternate Energy Sources from elective group - E of 7th semester as most of the chapters of this subject are repeated i Solar energy, an Inter Department elective, offered by Mechanical Engineerin Department, which most of our students register.
  - b. It was resolved to shift Elective subject Electrical Power Quality from group-B 5th semester to - group E of 5th semester, as this subject has prerequisite courses i ath semester.
- Also members suggested to allot at least 2 credits to Project Phase-I in 7th semester. 5.

Further the members authorized the chair person to make appropriate change whenever required. Chairperson concluded the meeting with vote of thanks.

Dr. Jyoti P Koujalagi

Professor and Head

Dept. of Electrical Electronics Engg.

Dr. AIT, Bengaluru

# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU (An Autonomous Institution Affiliated to VTU, Belgaum)

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING LIST OF BOARD OF STUDIES EEE MEMBERS FOR THE YEAR 2017-2019

### **Attendance List**

l. No.	Names	Signatures
1	Dr. Jyoti P Koujalagi, Chairman	dr.
2	Dr. Suryanarayana doolla, IIT, Mumbai	
3	Dr. Satish L, IISc, Bengaluru	Plan
4	Dr. Pradeep Kumar Dixit, MSRIT, Bengaluru	A Paris
5	Dr. Saikumar-NIE, Mysuru	
6	Dr. Ravishankay Drxit, BMSCE, - VTU NO	mineo.
7	Dr. Balaram, PRDC, Bengaluru	*
8	Mr. Chetan Rajdev, Deputy GM,	
	Bosch Rexorth, Bengaluru	
9	Mr. Srikanth Kashyap, Director,	
	JVS Electronics, Bengaluru	8
10	Mr. Srinivas BT, Software Engineer,	· 0 10m2 non
	IBM India Pvt. Ltd, Bengaluru	In m
11	Dr. B.V. Sumangala, Professor	anny
12	Dr. Shankarlingappa.C.B Professor	glan.
13	Mr. Eranna, Asso. Prof.	Eram
14	Mr. Dayananda T.B, Asso. Prof.	Day
15	Mr. Govindaraju H.V, Asso. Prof.	( - j.
16	Mr. Vasudevamurthy S, Asso. Prof.	1 July
17	Ms. Nalini S, Asso. Prof.	"orlinis
18	. 100 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1	gky
19	Mr. Keshava Murthy, Visiting Professor	1 1/4
20	The state of the s	- Helles
21	A CONTRACTOR CONTRACTOR OF THE VICTOR OF THE	
22	Mrs. Dhanyavathi., Asst. Prof.	D-F-X
23		A Jest
2	4 Mrs. Deepti S.S, Asst. Prof.	Deeply

# Dr.AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE (An Autonomous Institution Affiliated to VTU, Belgaum)

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### Minutes of BOS meeting

Chairman welcomed all the members of the Board of Studies in Electrical and Electronics Engineering. The meeting was convened on 19.06.2018 at 10.00 a.m in Research Laboratory.

To make the courses more relevant, the BOS shall also do necessary changes and up gradation of all the courses/training programmes proposed by the Course Co-ordinators. In addition, BOS will also explore the possibilities for conducting few courses in collaborative manner with some other organizations. BOS may offer suggestions for Identification thrust areas for conduction of workshop /seminar/technical seminars during 11th Plan period. A pre-BOS meeting was conducted with Student Representatives.

### Agenda:

- 1. Finalizing the Scheme and Syllabus of UG for 2018-19 batch.
- 2. Reviewing the Scheme and Syllabus of existing batches.
- 3. Approval of Panel of examiners, Paper Setters, Practical Examination and Theory Valuation.
- 4. Finalizing the Scheme and Syllabus of PG (Power Electronics) for 2018-19 batch and to revise the Scheme and Syllabus of existing batches.

### Minutes:

- Chairperson gave introduction about the EEE Dept. and Academic Autonomy.
- The preliminary BOS meetings, along with students of UG and PG programs,.
   The proposals put forth by the students were examined and the relevant items were included in the draft syllabus to be approved by the members, BOS.
- The members unanimously approved the following academic reforms:

### RESOLUTIONS: UG

he following changes are applicable to 2018 batch.

- 1. Two machine courses- Electrical Machines-I & Electrical Machines-II are mandatory for electrical course.
- 2. Board advised to make Modern control theory as an elective which was made as core in pre BOS meeting.
- 3. They advised to shift Generation, Transmission and Distribution course for higher semester.

- 4. Field theory course must be completed before doing Generation, Transmission and Distribution.
- 5. They mentioned to have theories and corresponding labs if any in same semester.
- 6. Management and humanitarian courses and/or credits should be reduced to include more number of core subjects.
- 7. They advised to reduce the credits of main project and include that in main subjects.
- 8. Classes not to be allotted for final year students on one or two days in a week to facilitate the students to carry out their project in industries.
- 9. Either the courses or credits need not be made compulsory but overall credits should be maintained as per the specified (175).
- 10. Operation & Research and PLC as core subjects to be included in the syllabus.

### RESOLUTIONS: PG

- 1. Thesis to be given more weightage than internship as thesis plays a key role in placement for students unlike undergraduates.
- 2. In the first sem there should be an elective in place of miniproject / Industrial visit
- 3. Technical seminar is mandatory in the first semester only and has to be a credit course.
- 4. Second semester has to have a mini project which is evaluated by a committee of 4 to 5 members.
- Final semester has to have only project and should not be clubbed with any other theory subjects.
- 6. Course can be clubbed with internship during third semester only.
- 7. Number of contact hours/week should be equal to the credits mentioned.

Further the members authorized the chair person to make appropriate changes whenever required. Chairperson concluded the meeting with vote of thanks.

Dr. Jyoti P Koujalagi
Professor and Head
Department of Electrical Electronics Engg.
Dr. AIT, Bengaluru



# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU (An Autonomous Institution Affiliated to VTU, Belgaum)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

# LIST OF BOARD OF STUDIES EEE MEMBERS FOR THE YEAR 2017-2019

### ATTENDANCE LIST - 19.06.2018

2. 3. 4. I	Dr. Jyoti P Koujalagi Dr. Suryanarayana doolla, IIT Mumbai Dr. Satish IISc, Bengaluru Dr. Pradip Kumar Dixit,	D. Grant
3. 4. I	Dr. Satish IISc, Bengaluru	2. 15/3
4.		1 1 1 1 1
1 1.	Dr. Pradip Kumar Dixit.	
	MSRIT, Bengaluru	Bur.
5. L	Dr. Saikumar-NIE, Mysuru	Sailens)
6.	Dr. Ravishankar Dixit, BMSCE, Bengaluru	P (19.6.18)
7. D	r. Balaram, PRDC, Bengaluru	ABJEHT
12.000	1r. Chetan Rajdev, Deputy GM, osch Rexorth, Bengaluru	July 1
	r. Srikanth Kashyap, Director, /S Electronics, Bengaluru	ABSENT
	r. Srinivas BT, Software Engineer, M India Pvt. Ltd, Bengaluru	ABSENT
	. B.V. Sumangala, Professor	-6-17130 E-141
12. Dr.	. Shankarlingappa.C.B Professor	B(508-
13. Mr.	. Eranna, Asso. Prof.	/ Ela.
14. Mr.	. Dayananda T.B, Asso. Prof.	Ray
10 mg	Govindaraju H.V, Asso. Prof.	$\psi_{i} = \mathcal{L}_{i}$
	Vasudevamurthy S, Asso. Prof.	I My siri
	Nalini S, Asso. Prof.	Julia s
	Arpitha Raju	stoji
19. Mr.	Keshava Murthy, Visiting Professor	1ABSEN1
20. Dr.Ja	ayaramaiah G V, Professor	111
	MukundaSwamy, Asst. Prof.	fleter
22. Mrs.	Harini Vaikund, Asst. Prof.	1 3
23. Mrs.	Dhanyavathi., Asst. Prof.	1.3 1/2 1/2
24. Mrs.	Pankaja S, Asst. Prof.	pauloja
25. Mrs.	Deepti S.S, Asst. Prof.	Deet De

# Dr.AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE (An Autonomous Institution Affiliated to VTU, Belgaum)

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### Minutes of BOS meeting

Chairman welcomed all the members of the Board of Studies in Electrical and Electronics Engineering. The meeting was convened on 01.06.2019 at 10.00 a.m in Research Laboratory.

To make the courses more relevant, the BOS shall incorporate necessary changes and to upgrade the courses/training programmes proposed by the Course Coordinators. In addition, BOS will also explore the possibilities for conducting few courses in collaborative manner with industries. BOS may offer suggestions for identifying thrust areas for conduction of workshop /seminar/technical seminars during 11th Plan period. A pre-BOS meeting were conducted and suggestions from Student Representatives where incorporated.

### Agenda:

- 1. Finalizing the Scheme of UG for 2018 and 2019 batch.
- 2. Reviewing the Syllabus of existing batches.
- 3. Approval of Panel of examiners, Paper Setters, Practical Examination and Theory Valuation.
- 4. Finalizing the Scheme and Syllabus of PG (Power Electronics) for 2019 and 2020 batch.

### Minutes:

- Chairperson gave introduction about the EEE Dept. and Academic Autonomy.
- The preliminary BOS meetings, along with students of UG and PG programs were put forth before the members and the relevant suggestions were included in the draft syllabus to be approved by the members, BOS.
- The members unanimously approved the following academic reforms:

### RESOLUTIONS: UG

The following are the suggestions given by the BOS members,

- 1. Dr. Puttaswamy PS suggested to retain the courses and reduce the credits keeping the contents intact at least for the 3<sup>rd</sup> and 4<sup>th</sup> semester.
- 2. Mr. Guruswamy expert from industry pointed out that an engineer should be able to replicate the basics what he/she has learnt effectively.
- 3. Focus should be good in basics or fundamental subjects for industry requirements.
- 4. Members mentioned to have theories and corresponding labs if any in same semester.
- 5. Mr. Ramachandra suggested to add Sensors and actuators to be one of the open elective.
- 6. Discussion on the curriculum design and the percentage of core and elective subjects were verified.

- 7. Power system planning which is at present in 6th semester should be shifted to higher semesters.
- 8. 3rd and 4th semester syllabus were discussed in detail.
- 9. Topic Saturation of Transformer to be include in the subject Transformer and Induction Machine.
- 10. Include self-study in all the modules of the courses; evaluation of such topics is not there for SEE.
- 11. Dr. Sathish and Dr. Sumathi S suggested not to have more than two books as textbooks, other books can be given as reference books.
- 12. Mr. Arun Kumar advised us to carry out simulation study for assignments of some subjects and the results can be submitted by the students. He also advised us to add simulation experiments along with the practical lab wherever possible.
- 13. The criteria for equivalence/credits for a particular subject has to be decided by the mentor coordinator with BOS coordinator & chairman.
- 14. The chairman of the BOS can decide as and when required the equivalent subjects to be offered to the backlog/readmission/change of college students.

### RESOLUTIONS: PG

- Mr. Guruswamy expert from industry pointed out that Snubber circuit to be included in SMPC (18EPE22) but it is already covered in PSDC (18EPE12).
- 2. Mr. Guruswamy also suggested that thermal design to be included in SMPC (18EPE22) but it is already covered in PSDC (18EPE12).
- 3. Mr. Ramachandra has suggested to incorporate Communication modules in DSP and applications.
- 4. Mr. Arun Kumar has insisted to include Grid connected inverters in uninterruptible power supply.
- 5. Dr. Puttaswamy PS advised us to add advance topics in each course as self-study component.
- 6. Mr. Arun Kumar has advised to include Programming in DSP course.

Further the members authorized the chair person to make appropriate changes whenever required. Chairperson concluded the meeting with vote of thanks.

Chairman, BOS 01 06 19

Dr. Jyoti P Koujalagi

Professor and Head

Department of Electrical Electronics Engg.

Dr. AIT, Bengaluru



# DR. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU (An Autonomous Institution Affiliated to VTU, Belgaum) DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### LIST OF BOARD OF STUDIES-EEE MEMBERS ATTENDED

Date: 1st June 2019

SI.N	o Name	Signature
1.	Dr. Jyoti P Koujalagi, Chair Person, BOE, EEE	.hing
2.	Dr. Suryanarayana doolla, Professor, IIT Mumbai	_)
3.	Dr. Satish-IISc, Professor, Bengaluru	2. Sitch
4.	Dr. Pradip Kumar Dixit, Professor, MSRIT, Bengaluru	- '
5.	Dr. Puttaswamy PS, Professor, PESCE, Mandya	/spers 9
6.	Dr. Sumathi, Professor, RNSIT, Bengaluru	100 Mill
7.	Mr. Ramachandra, MD, Green Automation, Bengaluru	Chancel A
8.	Mr. Arun Kumar, Director, Electrono Solutions, Bengaluru	J. Hm
9.	Mr. Guruswamy, GM, IE Power technology, Bengaluru	1.78
10.	Mr. Srinivas BT, Software Engineer, IBM, Bengaluru	Similar .
11.	Samarendra Prathap Singh, Asst. Prof, IET, Ayodhya, UP	String
12.	Dr. B.V. Sumangala, Professor, Dr. AIT	(Juns V
13.	Dr. Shankarlingappa. C.B, Professor, Dr. AIT	glar
14.	Dr. Eranna, Associate Professor, Dr. AIT	"Ela-
15.	Mr. Dayananda T.B, Associate Professor, Dr. AIT	They -
16.	Dr. Govindaraju H.V, Associate Professor, Dr. AIT	(H) -7/-
17.	Dr. Vasudevamurthy S, Associate Professor, Dr. AIT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
18.	Ms. Nalini S, Associate Professor, Dr. AIT	<u> </u>
19.	Ms. Arpitha Raju, Assistant Professor, Dr. AIT	flox
20.	Mr. Keshava Murthy, Visiting Professor, Dr. AIT	Villaharzr
21.	Mr. Mukunda Swamy, Assistant Professor, Dr. AIT	Med
22.	Mrs. Harini Vaikund, Assistant Professor, Dr. AIT	Dry
23.	Mr. Rajesh LV, Asst. Prof.	Kapuly.



### Department of Electrical & Electronics Engineering

Agenda 3: To frame, discuss and approve the syllabus of Basic Electrical Engineering and Basic Electrical Lab for the 1/11 Semester for the academic year 2020-21.

The Chairman presented the Syllabus of the Basic Electrical Engineering and Basic Electrical Lab for the 1/II Semester students of all the branches of Engineering for the academic year 2020-21. Accordingly, a syllabus for the I/II Semesters was presented and placed before the Board Of Studies Members for their opinion and approval.

**Resolution:** The BOS members went through the Syllabus of Basic Electrical Engineering and Basic Electrical Lab is discussed in length about the various aspects of the syllabus. After incorporation of the changes as suggested by the members of BOS, the Basic Electrical Engineering and Basic Electrical Lab syllabus for I/II Semesters was approved for the academic year 2020-21.

Agenda 4: To frame, discuss and approve the Scheme for III and IV Semester under Choice Based Credit System and Outcome Based Education System for 4 Years Course in Electrical and Electronics Engineering for the academic year 2020-21.

The BOS Chairman presented the Scheme and Syllabus for the III and IV Semester under Choice Based Credit System and Outcome Based Education System for 4 Years Course in Electrical and Electronics Engineering for the academic year 2020-21 and placed before the Board Of Studies Members for their opinion and approval.

Resolution: The BOS members went through the draft Schemes thoroughly for the III to IV Semester and discussed in length about various aspects of the scheme and syllabus. BoS members were suggested to incorporate the syllabus for virtual lab, inclusion of open source/Licenced software tools for the theory/laboratory. They also suggested to change in the syllabus with the mapping of Programme specific outcomes and course outcomes, the BOS members were approved the Scheme and syllabus for the III and IV Semesters for the academic year 2020-21 under Outcome Based Education System and Choice Based Credit System.

Agenda 5: To frame, discuss and approve the Scheme and Syllabus for V to VIII Semester under Choice Based Credit System and Outcome Based Education System for 4 Years Course in Electrical and Electronics Engineering for the academic year 2020-21 and syllabus of the Institute electives offered to the other department students of the college. The List of subjects for the Honours degree course were also placed before the committee members and also the rules and regulations of the Honour's degree were placed



### Department of Electrical & Electronics Engineering

before the committee members.

airman presented the Scheme and Syllabus for V to VIII Semester for 4 Years Course Electrical and Electronics Engineering for the academic year 2020-21 and the list of subjects for the H<sub>nour</sub> degree from V semester onwards were placed before the Board Of Studies Members for their opin approval.

Resolution: The BOS members went through the draft Schemes and Syllabus thoroughly for the V Semester applicable to 2018-2019 Batch and 2017-18 Batch respectively and discussed in length various aspects of the syllabus of theory and laboratory. After incorporating the following subjects Grid Technology, and Electrical Vehicle subjects as suggested by the committee members of Bu Scheme and Syllabus for V to VIII Semesters was approved for the academic year 2020-21 This committee have also approved the syllabus of the Institute/Open electives for the academic year 20 The BOS members were approved the inclusion of subjects for the Honours degree courses from semester onwards as per the regulations laid down by the Dr AIT and VTU

Agenda 6: To prepare the panel for the Board of Examiners of the Electrical and Electronics Engine to scrutinize the Question papers of the Semester End Examination for the AY: 2020-21

The BOS Chairman presented the list of Examiners to scrutinize the question papers for the Semestral Examination for the academic year 2020-21

Resolution: The list of the Board of Examiners were approved for the AY 2020-21.

Agenda 7: To prepare the panel of Board of examiners for the evaluation and scrutinizing the Q papers in the department for the academic year 2020-21.

The Chairman of the BOS in E & EE department was presented the proposed the list panel of Ext pertaining to UG in Electrical and Electronics Engineering department for the academic year 2020-Resoulution: The List of Panel of Examiners were approved based on the recommendation of interp members and the Chairman of BOS for the academic year 2020-21.

Agenda 8: To frame the list of subject equivalence for the academic year 2020-21.

The Chairman of the BOS in Electrical and Electronics Engineering presented the proposed? equivalence pertaining to LIC :- PI Scanned with CamScanner



### Department of Electrical & Electronics Engineering

**Resoulution:** The members of the BOS approved the subject equivalence for the students joined before the AY 2018-19, the BOS members were discussed in length about various aspects of the subject equivalence and approve the same.

Agenda 9: Inclusion of Virtual Lab for the academic year 2020-21.

The Chairman of the BOS in Electrical and Electronics Engineering presented the proposed subjects of Virtual Lab to UG in Electrical and Electronics Engineering for the academic year 2020-21.

**Resoulution:** The members of the BOS approved the subjects of Virtual Lab for the academic year 2020-21 onwards after discussing in length about various aspects of the virtual lab. External BOS members expressed their opinion and appreciated the inclusion of the Virtual lab for UG courses

Agenda 10: Inclusion of Tools and Methods for ONLINE or Blended learning for the AY 2020-21

The External BOS members suggested to introduce, the Tools and Methods for ONLINE or Blended learning to UG in Electrical and Electronics Engineering for the academic year 2020-21.

Resoulution: The members of the BOS approved the Tools for ONLINE/FLIPPED LEARNING ENVIRONMENT such as MICROSOFT TEAM, ZOOM, EDMODO, GOOGLE CLASS ROOM, EPILOGUE, CANVAS and CISCO WEBEX MEETING and also the members of BOS suggested to use the softwares like Sequel, Scilab, PSIM, Matlab, MiPower, PSCAD, Ansys, Open RTL for simulations for the academic year 2020-21 onwards. Also discussed in length about various aspects of the blended learning. External BOS members Expressed and apricated the inclusion of the blended learning for the UG courses

Finally, the meeting of Board of studies was concluded with the Chairman of the BOS in Electrical and Electronics Engineering thanking to all the members(Internal and External) of the BOS and Co-opted members for their active participation in the deliberations of the meeting and giving inputs for the progress of the department.

The following BOS members were presented for the BOS Meeting on Saturday, the 8th August 2020.

- 1. Dr.G.V.Jayaramaiah, Professor and HOD, Chairman of BOS
- 2. Dr..Sumathi, Professor and HOD, EEE, RNSIT, Bengaluru and VTU Nominee
- Dr. Suryanarayanadoolla, Professor, Energy systems Engineering, IIT Bombay and Subject Expert
- Dr. Pradeep Kumar Dixit, Professor and Head, Electrical Engineering, MSRIT, Bengaluru-19 and Subject Expert

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# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BEGALURU Sological University, Belagas Pr. AMBEDKAR INSTITUTE OF TECHNOLOGICAL URU 5600 (An Autonomous Institution Affiliated to Visvesvaraya Technological University, Belaga,

# Department of Electrical & Electronics Engineering

- 5. Dr.P.S. Puttaswamy, Professor and Head, Department of EEE, GSS, Mysore and
- 6. Professor Dilip Kumar, HOD EEE at IET Ayodhya, UP and Subject Expert
- 8. Mr. Ramachandra, Green Automation Pvt. Ltd, Bengaluru and Industry Represent
- 9. Mr. Arun Kumar, Electrono Solution Pvt Ltd.Bengaluru and Industry Representati
- 11. Dr. Jyoti P Koujalagi, Professor and BOS Member
- 12. Mr.T.B.Dayananda, Associate Professor and BOS Member
- 13. Dr.H.V.Govindaraju, Associate Professor and BOS Member
- 14. Dr S. Vasudevamurthy, Associate Professor and BOS Member
- 15. Ms.Nalini. S, Assoicate Professor and BOS Member
- 16. Dr. Shankaralingappa.C.B., Professor and BOS Member
- 17. Ms Arpitha Raju, Assistant Professor and BOS Member

### Members Absent:

- 1. Mr. Guruswamy, General Manager, IE Power Technologies, Bengaluru and Industry Representative
- 2. Dr.Satish, Professor, IISc, Bengaluru and Subject Expert

1.	Signature of Coordinators  Dr. Jyoti P Kqujalagi	Signature of the BC Dr.G.V. Jayara	S Chairman
2.	Mr.T.B.Dayananda		
3.	Harini Vaikund		



8. Arpitha Raju

# Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BEGALURU- 560056. (An Autonomous Institution Affiliated to Visvesvaraya Technological University, Belagavi)

### Department of Electrical & Electronics Engineering

# Name of the BOS Member Signature of the BOS Member with date 1. Dr.Eranna, Associate Professor 2. Dr.Jyoti P Koujalagi, Professor 3. Mr.T.B.Dayananda 4. Dr.H.V.Govindaraju, Associate Professor 5. Dr.S.Vasudevamurthy, Associate Professor 6. Ms.Nalini.S, Associate Professor 7. Dr.Shankarlingappa.C.B., Professor



### Department of Electrical & Electronics Engineering

# Minutes of the Board of Studies (BOS) Meeting:

The proceedings of the 12<sup>th</sup> Board of Studies (BOS) meeting of the Electrical and Electronics Engineering Department was held on Saturday, the 26<sup>th</sup> June 2021 at 11:00 AM through ONLINE MODE via Google Meet at EEE Department under the Chairmanship of Dr.G.V.Jayaramaiah, Professor and Head of the Department of Electrical and Electronics Engineering.

At the very outset, the Chairman welcomed all the Internal and External members of the BOS meeting through ONLINE MODE and gave a preliminary presentation on the agenda of approval of the scheme and syllabus of UG and PG for the academic year 2021-22

The chairman along with the BOS coordinator(s) gave a detailed presentation of the courses to be offered semester-wise: Professional core, Professional Elective, and Open Elective subjects to the UG level students. Also, the members were briefed about the Curriculum Design of the Department for the UG and PG courses.

The following agenda was placed by the Chairman which was discussed and resolved as follows:

Agenda 1: The confirmation of the proceedings of the 11th BOS meeting held on 08-08-2020

The 11th BOS meeting proceedings were confirmed.

Discussion: The members appreciated the progress during the academic year 2020-21.

Agenda 2: To frame, discuss and approve the Curriculum Design for the semesters I to VIII of UG for the Batch 2018-21 under Choice Based Credit System and Outcome Based Education System.

The Chairman appreciated the members about the introduction of Choice Based Credit System and Outcome Based Education System for a 4-year course in Electrical and Electronics Engineering with the

Accordingly, a draft Curriculum Design for the I to VIII Semesters was presented and placed before the Board Of Studies Members for their opinion and approval.

Resolution: The BOS members went through the Curriculum Design and discussed in length, the various aspects of the Curriculum Design. After incorporating, the changes suggested by the members of BOS, the Curriculum Design for I to VIII Semesters were approved for the AY 2018-21.



### Department of Electrical & Electronics Engineering

Agenda 3: To frame, discuss and approve the Scheme for VII and VIII Semester under Choice Based C. System and Outcome Based Education System for 4 Years Course in Electrical and Electronics Engineer for the academic year 2021-22.

The BOS Chairman presented the Scheme for the VII and VIII Semester under Choice Based Credit Synamod Outcome Based Education System for 4 Years Course in Electrical and Electronics Engineering for academic year 2021-22 and placed before the Board Of Studies Members for their opinion and approved

Resolution: The BOS members went through the draft Schemes thoroughly for the VII to VIII Senses and discussed in length, the various aspects of the scheme. BOS members were approved the same.

Agenda 4: To frame, discuss and approve the Syllabus for VII and VIII Semester under Choice have Credit System and Outcome Based Education System for 4 Years Course in Electrical and Electronic Engineering for the academic year 2021-22 and syllabus of the Institute electives/Open Electives offered the other department students of the Institute.

The BOS Chairman presented the Syllabus for VII and VIII Semester for 4 Years Course in Electrical at Electronics Engineering for the academic year 2021-22.

Resolution: The BOS members went through the draft Syllabus thoroughly for the VII and VIII Semes applicable to the 2018-2021 Batch and discussed in length, the various aspects of the syllabus of theory a laboratories. The BOS committee has also approved the syllabus of the departmental Electives a Institute/Open electives and appreciated the inclusion of the elective subjects like Sensors and Transducer Energy Auditing & Demand Side Management, Computer Control of Electrical Drives for the academy year 2021-22.

Agenda 5: To prepare the panel for the Board of Examiners of the Electrical and Electronics Engineering to scrutinize the Question papers of the Semester End Examination for the AY: 2021-22

The BOS Chairman presented the list of Examiners to scrutinize the question papers for the Semester Examination for the academic year 2021-22

Resolution: The list of the Board of Examiners was approved for the AY 2021-22.

Agenda 6 To frame, discuss and approve the Scheme and Syllabus for III and IV Semester pg und Electronics for the academic year 2021-22.



### Department of Electrical & Electronics Engineering

The BOS Chairman presented the Scheme and Syllabus for the III and IV Semester PG under Choice Based Credit System and Outcome Based Education System for the academic year 2021-22 and placed it before the Board Of Studies Members for their opinion and approval

Resolution: The BOS members went through the draft Scheme and Syllabus for the III and IV Semester pG applicable to the 2020-2022 Batch and discussed in length, the various aspects of the scheme and syllabus of theory. The BOS committee has also approved the Scheme and Syllabus for the AY 2020-21.

Agenda 07: Inclusion of Tools and Methods for ONLINE or Blended learning for the AY 2021-22

The External BOS members suggested introducing, the Tools and Methods for ONLINE or Blended learning to UG and PG in Electrical and Electronics Engineering for the academic year 2021-22. Resolution: The members of the BOS approved the Tools for ONLINE/FLIPPED LEARNING ENVIRONMENT such as MICROSOFT TEAM, ZOOM, EDMODO, GOOGLE CLASSROOM, EPILOGUE, CANVAS and CISCO WEBEX MEETING and also the members of BOS suggested using software like Sequel, Scilab, PSIM, Matlab, MiPower, PSCAD, Ansys, Open RTL for simulations for the academic year 2021-22 onwards. Also discussed in length about various aspects of blended learning. External BOS members Expressed and appreciated the inclusion of blended learning for the UG and PG courses

Finally, the meeting of the Board of studies was concluded with a Vote of Thanks by the Chairman of the BOS and BOS Coordinator(s) to all the members (Internal and External) of the BOS and Co-opted members for their active participation in the deliberations of the meeting and giving their inputs for the progress of the departmental academics.

The following BOS members were presented for the BOS meeting on Saturday, the 26th of June 2021.

- 1. Dr. G.V.Jayaramaiah, Professor and HOD, Chairman of BOS
- 2. Dr. Sumathi, Professor and HOD, EEE, RNSIT, Bengaluru, VTU Nominee
- 3. Dr. Suryanarayanadoolla, Professor in Energy Science and Engineering, IIT Bombay,
- 4. Dr. Pradeep Kumar Dixit, Professor, and Head, Electrical Engineering, MSRIT, Bengaluru,
- 5. Dr. P.S. Puttaswamy, Professor and Head, Department of EEE, GSS, Mysore, Subject
- 6. Professor Dilip Kumar, HOD EEE at IET Ayodhya, UP, Invitee, Mentee Institute
- 7. Mr. Srinivas. B.T., Software Engineer, IBM India, Bengaluru, Post Graduate Alumnus Student Nominee

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### Department of Electrical & Electronics Engineering

- Mr Ramachandra, Green Automation Pvt. Ltd, Bengaluru, Industry Representativa
- 9. Mr. Arun Kumar, Electrono Solution Pvt Ltd. Bengaluru, Industry Representative
- 10. Mr. Guruswamy GM, IE Power technology, Bengaluru, Industry Representative
- 11. Dr. Eranna, Associate Professor and BOS Member
- 12. Dr. Jyoti P Koujalagi, Professor and BOS Member
- 13. Mr. T.B. Dayananda, Associate Professor, BOS Member
- 14. Dr. H.V. Govindaraju, Associate Professor, BOS Member
- Dr. S. Vasudevamurthy, Associate Professor, BOS Member
- 16. Ms. Nalini. S, Associate Professor, BOS Member
- 17. Dr. Shankaralingappa. C.B, Professor, BOS Member
- 18. Ms. Arpitha Raju, Assistant Professor, BOS Member

### Members Absent:

1. Dr.Satish, Professor, IISc, Bengaiuru, Subject Expert

Signature of Coordinators

1. Mr T.B. Dayananda

2. Mrs Harini Vaikund Lælferdel Signature of the BOS

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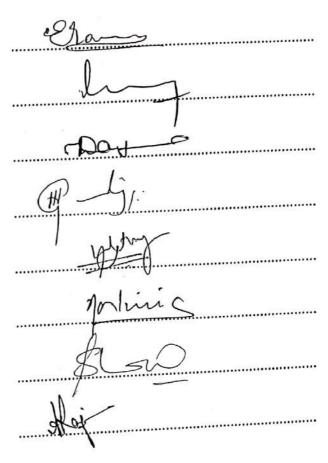


### Department of Electrical & Electronics Engineering

### Name of the BOS Member

### Signature of the BOS Member with date

- 1. Dr Eranna, Associate Professor
- Dr Jyoti P Koujalagi, Professor
- 3. Mr T.B Dayananda
- 4. Dr H.V Govindaraju, Associate Professor
- 5. Dr S Vasudevamurthy, Associate Professor
- 6. Ms Nalini. S, Associate Professor
- 7. Dr Shankarlingappa. C.B., Professor
- 8. Ms Arpitha Raju, Assistant Professor



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Scheme of Teaching and Examination M.Tech POWER EECRTONICS (EPE) (Effective from Academic year 2016-17)

### SCHEME OF TEACHING AND EXAMINATION - 2016-17 M.Tech. POWER EECRTONICS (EPE) (Total number of credits prescribed for the programme – 100)

T	SEN	<b>TEC</b>	TTD
	OLD		

			Teaching l	Hours /Week		Exami	nation		
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE11	Applied Mathematics	04		03	30	70	100	4
2	EPE12	Power Semiconductor Devices and Components	04		03	30	70	100	4
3	EPE13	Solid State Power Controllers	04		03	30	70	100	4
4	EPE14	Modelling and Simulation of Power Electronics.	04		03	30	70	100	4
5	EPE15X	Elective -1	04		03	30	70	100	4
6	EPEL16	Power Electronics Laboratory - 1	-	3	03	30	70	100	2
7	EPE17	Seminar	ı	3	i	100	-	100	2
8	EPE18	Mini Project / Industrial Visit /Field Work				100			2
	T	OTAL	20	06	18	380	420	800	26

Subject Code under 16EPE15X	Title
EPE151	Embedded Systems
EPE152	Power System Harmonics
EPE153	Advanced Control Systems
EPE154	Electromagnetic Compatibility in Power Electronics

### SCHEME OF TEACHING AND EXAMINATION - 2016-17

### M.Tech POWER EECRTONICS (EPE)

(Total number of credits prescribed for the programme - 100)

### II SEMESTER

			Teaching	Hours /Week	Examination				
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE21	AC and DC Drives	04		03	30	70	100	4
2	EPE22	Switched Mode Power Conversion	04		03	30	70	100	4
3	EPE23	Modelling and Analysis of Electrical Machines	04		03	30	70	100	4
4	EPE24	FACTS Controllers	04		03	30	70	100	4
5	EPE25X	Elective - 2	04		03	30	70	100	4
6	EPE27	Research methodologies	ı	3	-	30	70	100	2
7	EPEL26	Power Electronics Laboratory - 2	1	3	03	30	70	100	2
8	EPE28	Mini Project / Industrial Visit /Field Work				100			2
	TOTAL			06	18	310	490	800	26

Subject Code under EPE25X	Title
EPE251	Integration of Renewable Energy
EPE252	Power Quality
EPE253	Electric Vehicle Technology

### SCHEME OF TEACHING AND EXAMINATION - 2016-17

### M.Tech POWER EECRTONICS (EPE)

(Total number of credits prescribed for the programme - 100)

		Teaching	Teaching Hours /Week		Examination				
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE31	Seminar / Presentation on Internship. (After 8 weeks from the date of commencement)				25		25	20
2	EPE32	Report on Internship				50		50	
3	EPE33	Evaluation and Viva-Voce of Internship					50	50	
4	EPE34	Evaluation of Project phase -1				25		25	2
		TOTAL				100	50	150	22

### SCHEME OF TEACHING AND EXAMINATION - 2016-17 M.Tech POWER EECRTONICS (EPE)

 $(Total\ number\ of\ credits\ prescribed\ for\ the\ programme\ -\ 100)$ 

IV S.	IV SEMESTER								
			Teaching	Teaching Hours /Week		Exami	ination	1	
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE41	HVDC power Transmission	04		03	30	70	100	4
2	EPE42	Elective - 3	04		03	30	70	100	4
3	EPE43	Evaluation of Project phase -2			-	100	-	100	
4	EPE44	Evaluation of Project and Viva- Voce			03	1	100 + 100	200	18
		TOTAL	08		09	160	340	500	26

# Subject Code under EPE42X Title EPE421 MPPT in solar systems EPE422 PWM converters and applications EPE423 DSP applications to drives

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Scheme of Teaching and Examination M.Tech POWER EECRTONICS (EPE) (Effective from Academic year 2018-19)

### SCHEME OF TEACHING AND EXAMINATION - 2018-19 M.Tech. POWER EECRTONICS (EPE) (Total number of credits prescribed for the programme – 100)

T	CEL	MESTER	•
•	-7 P/I	V	

		reaching i	nours / week	Examination				
Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
EPE11	Applied Mathematics	04		03	30	70	100	4
EPE12	Power Semiconductor Devices and Components	04		03	30	70	100	4
EPE13	Solid State Power Controllers	04		03	30	70	100	4
EPE14	Modelling and Simulation of Power Electronics.	04		03	30	70	100	4
EPE15X	Elective -1	04		03	30	70	100	4
EPEL16	Power Electronics Laboratory - 1	-	3	03	30	70	100	2
EPES17	Seminar	-	3	-	100	-	100	2
EPEM18	Mini Project / Industrial Visit /Field Work	-	-	-	100	-	100	2
Т	OTAL	20	06	18	380	420	800	26
	EPE11 EPE12 EPE13 EPE14 EPE15X EPEL16 EPES17 EPEM18	EPE11 Applied Mathematics  EPE12 Power Semiconductor Devices and Components  Solid State Power Controllers  Modelling and Simulation of Power Electronics.  EPE15X Elective -1  EPEL16 Power Electronics Laboratory - 1  EPES17 Seminar  Mini Project / Industrial	Subject CodeTitleTheoryEPE11Applied Mathematics04EPE12Power Semiconductor Devices and Components04EPE13Solid State Power Controllers04EPE14Modelling and Simulation of Power Electronics.04EPE15XElective -104EPEL16Power Electronics Laboratory - 1-EPES17Seminar-EPEM18Mini Project / Industrial Visit /Field Work-TOTAL20	Subject CodeTitleTheoryField work/AssignmentEPE11Applied Mathematics04EPE12Power Semiconductor Devices and Components04EPE13Solid State Power Controllers04EPE14Modelling and Simulation of Power Electronics.04EPE15XElective -104EPEL16Power Electronics Laboratory - 1-3EPES17Seminar-3EPEM18Mini Project / Industrial Visit /Field Work	Subject Code         Title         Theory         Practical/Field work/Assignment         Duration in hours           EPE11         Applied Mathematics         04          03           EPE12         Power Semiconductor Devices and Components         04          03           EPE13         Solid State Power Controllers         04          03           EPE14         Modelling and Simulation of Power Electronics.         04          03           EPE15X         Elective -1         04          03           EPEL16         Power Electronics Laboratory - 1         -         3         03           EPES17         Seminar         -         3         -           EPEM18         Mini Project / Industrial Visit /Field Work         -         -         -           TOTAL         20         06         18	Subject Code         Title         Theory         Practical/Field work/Assignment         Duration in hours         I.A. Marks           EPE11         Applied Mathematics         04          03         30           EPE12         Power Semiconductor Devices and Components         04          03         30           EPE13         Solid State Power Controllers         04          03         30           EPE14         Modelling and Simulation of Power Electronics.         04          03         30           EPE15X         Elective -1         04          03         30           EPEL16         Power Electronics Laboratory - 1         -         3         03         30           EPES17         Seminar         -         3         -         100           EPEM18         Mini Project / Industrial Visit / Field Work         -         -         -         -         -         -         100	Subject Code         Title         Theory         Practical/Field work/Assignment         Duration in hours         I.A. Marks         Theory/Practical Marks           EPE11         Applied Mathematics         04          03         30         70           EPE12         Power Semiconductor Devices and Components         04          03         30         70           EPE13         Solid State Power Controllers         04          03         30         70           EPE14         Modelling and Simulation of Power Electronics.         04          03         30         70           EPE15X         Elective -1         04          03         30         70           EPEL16         Power Electronics Laboratory - 1         -         3         03         30         70           EPES17         Seminar         -         3         -         100         -           EPEM18         Mini Project / Industrial Visit /Field Work         -         -         -         -         100         -           TOTAL         20         06         18         380         420	Subject Code         Title         Theory         Practical/Field work/Assignment         Duration in hours         I.A. Marks         Theory/Practical Marks           EPE11         Applied Mathematics         04          03         30         70         100           EPE12         Power Semiconductor Devices and Components         04          03         30         70         100           EPE13         Solid State Power Controllers         04          03         30         70         100           EPE14         Modelling and Simulation of Power Electronics.         04          03         30         70         100           EPE15X         Elective -1         04          03         30         70         100           EPEL16         Power Electronics Laboratory - 1         -         3         03         30         70         100           EPES17         Seminar         -         3         -         100         -         100           EPEM18         Mini Project / Industrial Visit / Field Work         -         -         -         -         -         100         -         100

Subject Code under 16EPE15X	Title
EPE151	Embedded Systems
EPE152	Power System Harmonics
EPE153	Advanced Control Systems
EPE154	Electric Vehicle Technology

### SCHEME OF TEACHING AND EXAMINATION - 2018-19

### M.Tech POWER EECRTONICS (EPE)

(Total number of credits prescribed for the programme - 100)

### II SEMESTER

			Teaching	Hours /Week					
Sl. No	Subject Code	Title	Theory		Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE21	AC and DC Drives	04		03	30	70	100	4
2	EPE22	Switched Mode Power Conversion	04		03	30	70	100	4
3	EPE23	Modelling and Analysis of Electrical Machines	04		03	30	70	100	4
4	EPE24	FACTS Controllers	04		03	30	70	100	4
5	EPE25X	Elective - 2	04		03	30	70	100	4
6	EPEM27	Research methodologies	-	3	-	30	70	100	2
7	EPEL26	Power Electronics Laboratory - 2	ı	3	03	30	70	100	2
8	EPEM28	Mini Project / Industrial Visit /Field Work				100		100	2
	TO	TAL	20	06	18	310	490	800	26

Subject Code under EPE25X	Title					
EPE251	Integration of Renewable Energy					
EPE252	Power Quality					
EPE253	Electromagnetic Compatibility in Power Electronics					

### SCHEME OF TEACHING AND EXAMINATION - 2018-19

### M.Tech POWER EECRTONICS (EPE)

(Total number of credits prescribed for the programme - 100)

III S	III SEMESTER												
			Teaching	Hours /Week		Exami	ination						
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks					
		Seminar / Presentation on											

Viva-Voce of Internship		 		50	50	
Project phase -1		 	25		25	2
TOTAL	-	 	100	50	150	22

25

50

Credits

20

25

50

### SCHEME OF TEACHING AND EXAMINATION - 2018-19

### M.Tech POWER EECRTONICS (EPE)

(Total number of credits prescribed for the programme - 100)

### IV SEMESTER

EPE31

EPE32

EPE33

EPE34

1

3

4

Internship.

of commencement)

Report on Internship

(After 8 weeks from the date

			Teaching	Hours /Week	Veek Examination				
Sl. No	Subject Code	Title	Theory	Practical/ Field work/ Assignment	Duration in hours	I.A. Marks	Theory/ Practical Marks	Total Marks	Credits
1	EPE41	HVDC power Transmission	04		03	30	70	100	4
2	EPE42	Elective - 3	04		03	30	70	100	4
3	EPE43	Project phase -2				100	-	100	
4	EPE44	Project and Viva-Voce			03		100 + 100	200	18
	•	TOTAL	08		09	160	340	500	26

Subject Code under EPE42X	Title
EPE421	Power quality enhancement using custom power devices.
EPE422	PWM converters and applications
EPE423	DSP applications to drives

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### **Department of Electrical and Electronics Engineering**

Batch (2020-22)

# SCHEME OF TEACHING AND EXAMINATION (Autonomous) for the Academic Year 2020-21 M.Tech. in POWER ELECTRONICS (EPE)

### I semester

					Teac	hing hours per	r week	Maximur	n Mar	ks allot	tted	
Sl. No.	S	Sub Code	Subject Title	Teaching Department	Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in Hours	CIE	SEE	Total	Examination Credits
1.	PC	20EPE11	Applied Mathematics	Maths.	03	00	00	03	50	50	100	03
2.	PC	20EPE12	Power Semiconductor Devices and Components	EEE	03	00	00	03	50	50	100	03
3.	PC	20EPE13	Solid State Power Converters	EEE	03	00	00	03	50	50	100	03
4.	PC	20EPE14	Modeling and Simulation of Power Electronics Systems	EEE	03	00	00	03	50	50	100	03
5.	PE	20EPE15X	Professional Elective - I	EEE	03	00	00	03	50	50	100	03
6.	PE	20EPE16X	Professional Elective - II	EEE	03	00	00	03	50	50	100	03
7.	PC	20EPEL17	Power Electronics Laboratory – I	EEE	00	00	03	03	50	50	100	02
8.	PC	20EPES18	Technical Seminar*	EEE	00	04	00	00	50	00	50	02
9.	PC	20EPEM19	Minor Project / Industrial Visit /Field Work	EEE	00	00	06	03	50	00	50	02
			Total		18	04	09	24	450	350	800	24

<sup>\*</sup>Technical Seminar: Seminar on Advanced topics from refereed journals by each student.

Profess	sional Elective I	(Credits-03)	Professional Elective II(Credits-03)					
Sl .No	<b>Subject Code</b>	Name of the Subject	Sl .No	<b>Subject Code</b>	Name of the Subject			
1	20EPE151	Embedded Systems	1	20EPE161	PWM converters and applications			
2	20EPE152	Advanced Control Systems	2	20EPE162	MPPT in Solar Systems			
3	20EPE153	Integration of Renewable Energy	3	20EPE163	Electric Vehicle Technology			

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### **Department of Electrical and Electronics Engineering**

Batch(2020-22)

# SCHEME OF TEACHING AND EXAMINATION (Autonomous) for the Academic year 2020-21 M.Tech. in POWER ELECTRONICS (EPE)

### II semester

					Teac	hing hours per	week	Maximu	m Mai	ks allo	tted	
Sl. No.		Sub Code	Subject Title	Teaching Department	Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in Hours	CIE	SEE	Total	Examination Credits
1.	PC	20EPE21	AC and DC Drives	EEE	03	00	00	03	50	50	100	03
2.	PC	20EPE22	Switched Mode Power Conversion	EEE	03	00	00	03	50	50	100	03
3.	PC	20EPE23	Power Electronics System Design Using Linear ICs	EEE	03	00	00	03	50	50	100	03
4.	PC	20EPE24	HVDC power Transmission	EEE	03	00	00	03	50	50	100	03
5.	PE	20EPE25X	Professional Elective - III	EEE	03	00	00	03	50	50	100	03
6.	PE	20EPE26X	Professional Elective - IV	EEE	03	00	00	03	50	50	100	03
7.	PC	20RM27	Research Methodology	MBA	02	00	00	03	50	50	100	02
8.	PC	20EPEL28	Power Electronics Laboratory - II	EEE	00	00	03	03	50	50	100	02
9.	PC	20EPEP29	Project Work Phase – I (Presentation of Synopsis)	EEE	00	00	06	03	50	00	50	02
			Total		20	00	09	27	450	400	850	24

Profess	sional Elective l	III(Credits-03)	Professional Elective IV(Credits-03)				
Sl .No	<b>Subject Code</b>	Name of the Subject	Sl .No	<b>Subject Code</b>	Name of the Subject		
1	20EPE251	Electromagnetic Compatibility in Power Electronics	1	20EPE261	Power quality		
2	20EPE252	FACTS Controllers	2	20EPE262	Uninterruptible Power Supply		
3	20EPE253	Multi-Terminal DC Grids	3	20EPE263	DSP applications to drives		

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### **Department of Electrical and Electronics Engineering**

Batch(2020-22)

# SCHEME OF TEACHING AND EXAMINATION (Autonomous) for the Academic Year 2021-22 M.Tech. in POWER ELECTRONICS (EPE)

III semester

	Sub Code		Subject Title	Teaching Department			Maximu					
Sl. No.					Teaching hours per week							Examination
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Field work	Duration in Hours	CIE	SEE	Total	Credits
1.	PC	20EPE31	Self-Study – Massive Open Online Course (MOOC)*	EEE	00	08	00	03	50	50	100	03
2.	PC	20EPEI32	Internship#	EEE	00	00	16	03	50	50	100	08
3.	PC	20EPES33	Technical Seminar	EEE	00	04	00	00	50	00	50	02
4.	PC	20EPEP34	Evaluation of Project Work Phase I	EEE	00	00	12	00	50	50	100	07
	Total				00	12	28	06	200	150	350	20

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### **Department of Electrical and Electronics Engineering**

Batch(2020-22)

# SCHEME OF TEACHING AND EXAMINATION (Autonomous) for the Academic Year 2020-21 M.Tech. in POWER ELECTRONICS (EPE)

### IV semester

Sl. No.	Sub Code		Subject Title	Teaching Department	Teaching hours per week			Maximum Marks allotted				
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Field work	Duration in Hours	CIE	SEE	Total	Examination Credits
1.	PC	20EPEP41	Project Work Phase II – Midterm Internal Evaluation	EEE	00	00	00	00	100	00	100	02
2.	PC	20EPEP42	Project work evaluation and viva voce	EEE	00	00	00	03	100	100	200	18
Total				00	00	00	03	200	100	300	20	