**Dr. Ambedkar Institute of Technology**

Department of Electrical and Electronics Engineering

The NAAC documents enclosed are verified and approved.

Jagadeesh 5/11/22

HOD
Dept of EEE
Department of Electrical and Electronics Engg.
Dr. Ambedkar Institute of Technology
Bengaluru-560056

AIT/Dean/   /2016-17

Dr. Ambedkar Institute of Technology, Bengaluru
(An Autonomous Institution, Affiliated to VTU, Belgaum)
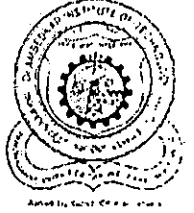
26.09.2016

Minutes of Academic Council meeting held on 23-09-2016 in Board Room at 11.00 PM

The members present:

Sl.No	Name	Affiliation	Designation
1	Dr. M. Mahadeva	Management Invitee	Managing Trustee/Secretary
2	Dr. C. Nanjundaswamy	Chairman Academic Council	Principal Dr. AIT
3	Dr. S.G. Gopalkrishna	VTU Nominee	Principal, NCE,
4	Dr. Mahanth Shetty	Industry Experts	Director, KARMIK Pvt. Ltd
5	Dr. V. Ramachandra	Industry Experts	V.P, Ultratech Cement
6	Sri. Srinivasa Ramanujan	Industry Experts	Head(Academic Solution),TCS
7	Dr. B. Shivakumarswamy	Member	HOD, CV
8	Dr. L. Chandrasagar	Member	HOD, ME
9	Dr. B. V. Sumangala	Member	HOD, EEE
10	Dr. G. Rajendra	Member	HOD, IEM & COE
11	Dr. Meenakshi	Member	HOD, EI
12	Dr. Rajanna K.M	Member	HOD, ECE
13	Dr. B. Sivakumar	Member	HOD, TCE
14	Dr. Siddaraju	Member	HOD, CSE
15	Dr. B.S. Shylaja	Member	HOD, ISE
16	Dr. Shanthi K.J	Member	HOD, ML
17	Dr. Veenadevi,	Member	HOD, Chemistry
18	Dr. Sooryanarayana. B	Member	HOD, Mathematics
19	Dr. T. S. Reddy	Member	HOD, Physics
20	Dr. S.G. Ramachandraiah	Member	Assc. Prof, CV
21	Prasannakumar M	Member	ACOE
22	Dr. Vijayakumar. M.V	Invitee	Prof. CSE
23	Dr. M.N. Hegde	Member Secretary	Dean (Academic)

Leave of Absence:

1. Dr. B. Hanumaiah, Advisor, Dr. AIT, Invitee
2. Dr. Basavarajappa, VTU Nominee
3. Sri. Samath Raman, Industry
4. Dr. S.N. Sridhar, VTU Nominee
5. Dr. Seetharamu, Ex. Director, CPRI
6. Dr. T. R. Shashipriya, HOD, HSS
7. Dr. T. N. Raju, Assc. Prof, ME
8. Dr. V. Arunkumar, Prof. ME

Introduction:

Principal welcomed all the members to the meeting and briefed about the agenda to be discussed and informed Dean (Academic) to continue with the deliberation.

Dr. M. Mahadeva, Managing Trustee/Secretary, has noted the absence of Dr. B. Hanumaiah, Advisor, without official communications during the academic deliberation was not acceptable and mentioned to keep on record his displeasure. He is advised to be present during all academic meetings. The absence of all other internal members without specific official reasons are to be recorded and asked to inform them to be part of the decisions. He has appreciated the participation and contributions of the External members for contributing their academic expertize in bringing the academic excellence for the benefit of the stakeholder. He has also thanked Visvesvaraya Technological University for granting institutional autonomy and Autonomous status to all PG programmes.

Ratification of Minutes of the previous meeting:

Minutes of the previous meeting was read & confirmed with discussion on NFTC cases. All the members agreed that a fair chance shall be given to students and agreed to the modifications made therein.

The Dean explained about the Academic Regulations for Post Graduate courses and MBA and MCA and the proceedings of BOS for PG programmes was placed before Academic Council and sought the Approval for the same.

Dr. Gopal Krishna suggested to have 100 credits to M. Tech programmes, 150 credits for MCA and 100 credits for MBA. He also opined that different weightage for CIE & SEE may be given as in VTU (CIE: SEE = 20:80).

Dr. V. Ramachandra opined that giving 50:50 weightage for CIE and SEE may create an impression that passing in Autonomous system may be easier and also there is no need to give summer semester for the PG students. Summer Semester is required for the UG level students. He also doubted that the students who could not pass in regular semester, may find it difficult to pass in 08 weeks period and other colleges are not adopting Summer Semester for PG courses. It is better to avoid Summer Semester and students can concentrate on internship.

It was resolved to relook into the weightage (50:50) given to CIE + assignments and Semester End Examinations. The Principal informed the members that all HOD will discuss this issue in college council meeting and take appropriate decisions. He also opined that instead of Summer

Semester, the students may be asked to attend contact classes for subjects, in which the students failed and shall be allowed to appear for the examination.

Academic Regulations (Tentative):

The Dean of Dr. AIT highlighted the features of the Academic Regulations for Post Graduate Programmes, which was prepared for the first time, as a result of the autonomous status given. The Secretary Dr. M. Mahadeva, expressed his opinion to get the information from other Autonomous Colleges, regarding their regulations and instructed the external members to kindly comment on the draft regulations and send their suggestions which can be incorporated and final version will be sent to them again, for their ratification.

The Dean explained the details of teaching and examination of PG programmes for the Academic year 2016-17. Sri. Srinivas Ramanujan, industry expert, opined that there is no need for theory subjects in the fourth semester, after doing internship programme and suggested that final year should be only for internship and project works.

The Principal stated to accommodate all theory and core subjects in I & II semesters, and during III & IV semesters, there will be internship and project respectively.

Dr. Mahanth Shetty opined to keep all core subjects in First semester, and internship in II & III semesters, and Projects in the IV semester. In this module, the students can interact with the faculty members so that students can make use of the benefit of internship to do project in the college and hence there will be knowledge sharing in the college. The College will also be benefitted.

Dr. V. Ramachandra suggested to have R&D or Industry interface courses during the III semester. However he has suggested that since the academic year is on and the classes are started, the major changes can be adopted during the next year. Dr. V. Ramachandra, finally suggested that during I & II semesters, confine the students for class room teaching, during III Semester, students can have industry interaction & internship under the guidance of faculty, and during IV Semester they can do the project work in the College.

PAN Dr. AIT Curriculum:

The Principal and the Dean have explained the features of the curriculum. They also explained that all the three components, Core engineering, Research & Development, and Industry needs are inbuilt in this model, where Core Academic component is covered during I and II Semesters, Industry component during the III Semester and Research & Development

component is covered during the IV Semester. Dr. V. Ramachandra suggested that unit weightage in the syllabus and curriculum on Core Academic as 50%, Research & Development as 25% and Industry needs as 25%.

The decision of teaching an exclusive paper on Research Methodology as part of the curriculum is appreciated by the experts.

It is resolved to accept the suggestion of having industry internship in III semester and carry out some project works at the same time. The main Project can be allowed during the IV semester is under the guidance of a faculty member. All PG departments are asked to go ahead with their scheme and syllabus for this academic year itself.

Sri. Srinivas Ramanujan suggested that TCS will come forward to guide for project works during IV semester and they can also undertake projects and internship for 02 groups of 05 students each. This will help the placement activities of the colleges. At this juncture the secretary has expressed deep sense of gratitude and thanked TCS and Sri Srinivas Ramanujan for taking interest in giving placement to large number of students of our college.

Members expressed their concern over 50:50 weightage for CIE and SEE. A suggestion was made to have 30:70 weightage to CIE and SEE to minimize the teachers' role and encourage students to earn better.
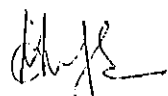
The Committee has accepted the suggestion to adopt 30:70 weightage to CIE and SEE and details of evaluation procedure may be worked out in the HODs and coordinators meeting.

Under any other points:
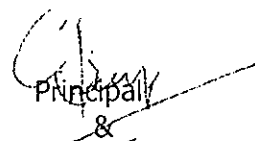
Increase of CIE eligibility marks from 20 to 30 for English subject in first year B.E that for Functional English Course, since there is no final examination, was considered and eligibility marks may be increased from 20 to 30 (i.e., to 60% minimum).

The request of HOD HSS the CIE eligibility marks for English course has been resolved to increase from the current 20 marks to 30 marks & there will be no SEE for this subject.

The Principal has concluded the meeting with vote of thanks

Dean (Academic)

Principal
&
Chairman of Academic Council

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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

Sl. No.		Sub Code	Subject Title	Teaching Department	Teaching hours per week			Maximum Marks allotted				Examination Credits
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in Hours	CIE	SEE	Total	
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**

*Technical Seminar: Seminar on Advanced topics from refereed journals by each student.

Professional Elective I(Credits-03)			Professional Elective II(Credits-03)		
Sl .No	Subject Code	Name of the Subject	Sl .No	Subject Code	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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M.Tech. in POWER ELECTRONICS (EPE)

II semester

Sl. No.		Sub Code	Subject Title	Teaching Department	Teaching hours per week			Maximum Marks allotted				Examination Credits
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Project	Duration in Hours	CIE	SEE	Total	
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**

Professional Elective III(Credits-03)			Professional Elective IV(Credits-03)		
Sl .No	Subject Code	Name of the Subject	Sl .No	Subject Code	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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M.Tech. in POWER ELECTRONICS (EPE)

III semester

Sl. No.		Sub Code	Subject Title	Teaching Department	Teaching hours per week			Maximum Marks allotted				Examination Credits
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Field work	Duration in Hours	CIE	SEE	Total	
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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M.Tech. in POWER ELECTRONICS (EPE)

IV semester

Sl. No.	Sub Code		Subject Title	Teaching Department	Teaching hours per week			Maximum Marks allotted				Examination Credits
					Lecture	Tutorial/ Seminar/ Assignment	Practical / Field work	Duration in Hours	CIE	SEE	Total	
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**