



VAAGDEVI COLLEGE OF ENGINEERING

Autonomous

Bollikunta, Khila Warangal (Mandal), Warangal Urban-506 005 (T.S), www.vaagdevi.edu.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 11-11-2022.

BOARD OF STUDIES MEETING

Minutes of the meeting of Board of Studies for Electrical and Electronics Engineering department held on **11-11-2022 at 2:30 P.M.**

Ref: In-Continuation with Departmental BOS Meeting held on **02-11-2022.**

Sl.No.	Name of the Address	Designation	Signature
1	Dr. P. Sadanandam Associate Professor, Department of EEE, VCE, Warangal.	Chairperson	
2	Dr. A. Jayalaxmi Professor of EEE Department, JNTUH, CEH	Member (University Nominee)	
3	Dr. G. Yesurathnam Professor, EE Department, Osmania University, Hyderabad.	Member (Subject Expert)	
4	Dr. Ch. Ramulu Assistant Professor, EE Department, NIT, Warangal.	Member (Subject Expert)	
5	Sri Murali Mohan Gade Scientist 'F', Directorate of Systems, DRDL, Hyderabad.	Member (Representative from Industry)	
6	Dr. K. Prakash Professor, Department of EEE, VCE, Warangal.	Member (Faculty)	
7	Mr. P. Purna Chander Rao Associate Professor, Department of EEE, VCE, Warangal.	Member (Faculty)	
8	Dr. K. Ranjith Kumar Assistant Professor, Department of EEE, VCE, Warangal.	Member (Faculty)	
9	Mr. N. Mahender A.E, TS NPDCL, Warangal.	Member (Representative from Alumni)	

The following decisions are taken:

1. Approved the course structure and syllabi of B.Tech (R22-Regulations) for I-Year (I and II Semesters).
2. Approved the course structure and syllabi of M.Tech (Power Electronics) R22-Regulations I & II Years (I, II, III & IV Semesters).
3. Approved the course structure and syllabi of M.Tech (Power Systems Control & Automation) R22-Regulations I & II Years (I, II, III & IV Semesters).
4. Approved the syllabi of I-Year B.Tech courses namely Basic Electrical Engineering and Basic Electrical Engineering Laboratory offered to CSE /CSE (Data Science) in I- Semester and ECE/CSE(AIML) in II-Semester.
5. Internal Department BOS meeting minutes are discussed.

Dr. P. Sadanandam
(BOS- Chairperson)

VAAGDEVI COLLEGE OF ENGINEERING, WARANGAL
UGC-AUTONOMOUS
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
COURSE STRUCTURE & SYLLABUS (R22 Regulations)
Applicable from AY 2022-23 Batch

I Year I Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1		Matrices and Calculus	3	1	0	4
2		Engineering Chemistry	3	1	0	4
3		C Programming and Data Structures	3	0	0	3
4		Electrical Circuit Analysis - I	3	0	0	3
5		Computer Aided Engineering Graphics	1	0	4	3
6		Elements of Electrical and Electronics Engineering	0	0	2	1
7		Engineering Chemistry Laboratory	0	0	2	1
8		C Programming and Data Structures Laboratory	0	0	2	1
9		Induction Program				
		Total Credits	13	2	10	20

I Year II Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1		Ordinary Differential Equations and Vector Calculus	3	1	0	4
2		Applied Physics	3	1	0	4
3		Engineering Workshop	0	1	3	2.5
4		English for Skill Enhancement	2	0	0	2
5		Electrical Circuit Analysis - II	2	0	0	2
6		Applied Physics Laboratory	0	0	3	1.5
7		English Language and Communication Skills Laboratory	0	0	2	1
8		Applied Python Programming Laboratory	0	1	2	2
9		Electrical Circuit Analysis Laboratory	0	0	2	1
10		Environmental Science	3	0	0	0
		Total Credits	13	2	14	20

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VAAGDEVI COLLEGE OF ENGINEERING, WARANGAL
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M. TECH- POWER ELECTRONICS

(Applicable for the Batch admitted from the Academic Year 2022-23 onwards)

(R22) COURSE STRUCTURE AND SYLLABUS

I YEAR I SEMESTER

Sr.No	Core/Elective	Course Name	L	T	P	Credits
1.	Program Core-I	Advanced Power Electronic Converters-I	3	0	0	3
2.	Program Core-II	Electrical Drives	3	0	0	3
3.	Program Elective-I	1. Machine Modelling and Analysis 2. Microcontroller Applications to Power Electronics 3. Smart Grid Technologies 4. Modern Control Theory	3	0	0	3
4.	Program Elective-II	1. Power Semiconductor Devices and Modelling 2. Reactive Power Compensation and Management 3. High Frequency Magnetic Components 4. Electric Vehicles and Design	3	0	0	3
5.		Research Methodology & IPR	2	0	0	2
6.	Lab-I	Advanced Power Electronic Converters Lab-I	0	0	4	2
7.	Lab-II	Electrical Drives Lab	0	0	4	2
8.	Audit-I	Audit Course-I	2	0	0	0
		Total Credits	16	0	8	18

I YEAR II SEMESTER

Sr.No	Core/Elective	Course Name	L	T	P	Credits
1.	Program Core-III	Advanced Power Electronic Converters-II	3	0	0	3
2.	Program Core-IV	Power Electronics Application to Power Systems	3	0	0	3
3.	Program Elective-III	1. Industrial Load Modelling and Control 2. Advanced Digital Signal Processing 3. Power Quality Improvement Techniques 4. Power Electronics for Renewable Energy Systems	3	0	0	3
4.	Program Elective-IV	1. DSP based Drive Control 2. Distributed Generation 3. Electric Vehicle Charging Techniques 4. Electromagnetic interference and compatibility	3	0	0	3
5.	MPWS	Mini Project with Seminar	0	0	4	2
6.	Lab-III	Advanced Power Electronic Converters Lab-II	0	0	4	2
7.	Lab-IV	Power Electronics Application to Power Systems Lab	0	0	4	2
8.	Audit-II	Audit Course-II	2	0	0	0
		Total Credits	14	0	12	18

1. *Power* 2. *AS* 3. *em* 4. *AS* 5. *.*
6. *Power* 7. *Lab* 8. *Drive* 9. *MP*

II YEAR I SEMESTER

Sr.No	Core/Elective	Course Name	L	T	P	Credits
1.	Program Elective-V	1. Reliability Engineering 2. Dynamics of Electrical Machines 3. Energy Storage Technologies 4. SCADA Systems and Applications	3	0	0	3
2.	Open Elective	1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Photovoltaic Systems	3	0	0	3
3.	Dissertation	Dissertation Stage-I	0	0	12	6
		Total Credits	6	0	12	12

II YEAR II SEMESTER

Sr.No	Core/Elective	Course Name	L	T	P	Credits
1.	Dissertation	Dissertation Stage-II	0	0	12	6
2.	Dissertation	Dissertation Viva-Voce	0	0	28	14
		Total Credits	0	0	40	20

*For Dissertation Work Review - I, please refer 7.10 in R22 Academic Regulations.

Open Elective

1. Business Analytics (Offered by CSE Department)
2. Industrial Safety (Offered by **Chemical Engineering** Department)
3. Operations Research (Offered by **Mechanical Engineering** Department)
4. Cost Management of Engineering Projects (Offered by **Civil Engineering** Department)
5. Composite Materials (Offered by **Metallurgical Engineering** Department)
6. Photovoltaic Systems (Offered by **EEE** Department)

Audit Course I & II

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge.
4. Value Education.
5. Constitution of India.
6. Pedagogy Studies.
7. Stress Management by Yoga.
8. Personality Development through Life Enlightenment Skills.

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6. AS, 7. AS, 8. AS, 9. mp

VAAGDEVI COLLEGE OF ENGINEERING, WARANGAL
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M.TECH (POWER SYSTEM CONTROL AND AUTOMATION)
(Applicable for the batch admitted from Academic Year 2022-23 onwards)
(R22) COURSE STRUCTURE & SYLLABUS

I-SEMESTER

S.No	Course	Title of the Course	L	T	P	Credits
1	Program Core I	Advanced Power System Analysis	3	0	0	3
2	Program Core II	Advanced Power System Protection	3	0	0	3
3	Program Elective-I	1. Economic operation power systems 2. Power System Reliability 3. Renewable Energy Systems 4. Modern Control Theory	3	0	0	3
4	Program Elective-II	1. Analysis of Power Electronics Converters 2. Distribution System Planning 3. Micro Controller and Applications	3	0	0	3
5		Research Methodology & IPR	2	0	0	2
6	Lab-I	Power Systems Computation Lab-I	0	0	4	2
7	Lab-II	Power Systems Protection Lab	0	0	4	2
8	Audit-I	Audit Course-I	2	0	0	0
Total Credits			16	0	8	18

II-SEMESTER

S.No	Course	Title of the Course	L	T	P	Credits
1	Program Core III	Power System Dynamics	3	0	0	3
2	Program Core IV	Power System Automation	3	0	0	3
3	Program Elective-III	1. Restructured Power Systems 2. Digital Control Systems 3. HVDC & FACTS	3	0	0	3
4	Program Elective-IV	1. AI Applications to Power Systems 2. EHV AC Transmission 3. Reactive Power Compensation and Voltage Stability	3	0	0	3
5	Lab III	Power Systems Computation Lab-II	0	0	4	2
6	Lab IV	Advanced Power Systems Simulation Lab	0	0	4	2
7	MPWS	Mini Project with Seminar	0	0	4	2
8	Audit II	Audit Course-II	2	0	0	0
Total Credits			14	0	12	18

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6. *power* 7. *AS* 8. *AS* 9. *mp*

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M.TECH (POWER SYSTEM CONTROL AND AUTOMATION)
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(R22) COURSE STRUCTURE & SYLLABUS

III-SEMESTER

S.No	Course	Title of the Course	L	T	P	Credits
1	Program Elective-V	1. Power Quality 2. Smart Grid Technologies 3. Distributed Generation 4. Advanced Digital Signal Processing	3	0	0	3
2	Open Elective	1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Photovoltaic Systems	3	0	0	3
3	Dissertation	Dissertation Stage-I	0	0	12	6
Total Credits			06	0	12	12

IV-SEMESTER

S.No	Course	Title of the Course	L	T	P	Credits
1	Dissertation	Dissertation Stage-II	0	0	12	6
2	Dissertation	Dissertation Viva-Voce	0	0	28	14
Total Credits			0	0	40	20

***For Dissertation Work Review - I, please refer 7.10 in R22 Academic Regulations.**

Open Elective

1. Business Analytics (Offered by CSE Department)
2. Industrial Safety (Offered by Chemical Engineering Department)
3. Operations Research (Offered by Mechanical Engineering Department)
4. Cost Management of Engineering Projects (Offered by Civil Engineering Department)
5. Composite Materials (Offered by Metallurgical Engineering Department)
6. Photovoltaic Systems (Offered by EEE Department)

Audit Course I & II

1. English for Research Paper Writing.
2. Disaster Management.
3. Sanskrit for Technical Knowledge.
4. Value Education.
5. Constitution of India.
6. Pedagogy Studies.
7. Stress Management by Yoga.
8. Personality Development through Life Enlightenment Skills.

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