5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

Jadavpur University
Department of Electrical Engineering

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

1st Year 1st Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/111	PRINCIPLES OF ELECTRICAL ENGINEERING-I	4	0	3	100	------
EE/5/T/112	CIRCUIT THEORY	4	0	3	100	
EE/5/Math/T/113	MATHEMATICS-IIF	4	0	3	100	------
EE/5/ME/T/114	PRIME MOVERS FOR ELECTRICAL SYSTEMS	4	0	3	100	
EE/5/ME/S/111	M. E. LABORATORY – I	0	4	3	--------	100
EE/5/AED/ME/ S/112	ADVANCED ENGINEERING DRAWING	0	4	3	--------	100
	Sub- Total	16	08		400	200
	Total	24			600	

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

1st Year 2nd Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/121	PRINCIPLES OF ELECTRICAL ENGINEERING-II	4	0	3	100	------
EE/5/T/122	ELECTRICAL ENGINEERING MATERIALS	4	0	3	100	-----
EE/5/ET/T/123	ELECTRONICS-II	4	0	3	100	------
EE/5/CAD/ME/S /121	COMPUTER AIDED DRAFTING	0	4	3	--------	100
EE/5/ME/S/122	M. E. LABORATORY – II	0	4	3	--------	100
EE/5/S/123	COMPUTER FUNDAMENTALS	0	4	3	--------	100
	Sub- Total	12	12		300	300
	Total	24			600	

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

2nd Year 1st Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/211	ELECTRICAL MEASUREMENT & MEASURING INSTRUMENTS	4	0	3	100	-----
EE/5/T/212	ELECTRICAL MACHINES-I	4	0	3	100	------
EE/5/T/213	FIELD THEORY	4	0	3	100	------
EE/5/T/214	POWER SUPPLY SYSTEMS	4	0	3	100	------
EE/5/S/211	E. E. LABORATORY – I	0	4	3	--------	100
EE/5/ET/S/212	ELECTRONICS LABORATORY	0	4	3	--------	100
	Sub- Total	16	8		400	200
	Total	24			600	

2nd Year 2nd Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/221	SIGNALS & SYSTEMS	4	0	3	100	-------
EE/5/T/222	SEQUENTIAL SYSTEMS & MICROPROCESSORS	4	0	3	100	------
EE/5/T/223	BASICS OF NUMERICAL METHODS AND PROGRAMMING	4	0	3	100	------
EE/5/S/221	COMPUTER PROGRAMMING LABORATORY	0	4	3	--------	100
EE/5/S/222	E. E. LABORATORY – II	0	4	3	-------	100
EE/5/S/223	ELECTRICAL MACHINE DESIGN – I	0	4	3	-------	100
	Sub- Total	12	12		300	300
	Total	24			600	

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

3rd Year 1st Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/311	ELECTRICAL INSTRUMENTATION	4	0	3	100	-------
EE/5/T/312	POWER SYSTEM PLANNING AND DESIGN	4	0	3	100	------
EE5//T/313	ELECTRICAL MACHINES-II	4	0	3	100	-----
EE/5/T/314	LINEAR CONTROL SYSTEM	4	0	3	100	
EE/5/S/311	ELECTRICAL MACHINE DESIGN – II	0	4	3	-------	100
EE/5/S/312	E. E. LABORATORY – III	0	4	3	-------	100
	Sub- Total	16	8		400	200
	Total	24			600	

3rd Year 2nd Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/321	PROGRAMMABLE LOGIC & MICROCONTROLLER	4	0	3	100	-------
EE/5/T/322	HIGH VOLTAGE ENGINEERING	4	0	3	100	------
EE/5/T/323	POWER SYSTEM PERFORMANCE	4	0	3	100	-----
EE/5/S/321	POWER SYSTEM DESIGN	0	4	3	--------	100
EE/5/S/322	E. E. LABORATORY – IV	0	4	3	-------	100
EE/5/S/323	MICROPROCESSOR AND MICROCONTROLLER LABORATORY	0	4	3	-------	100
	Sub- Total	12	12		300	300
	Total	24			600	

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

4th Year 1st Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/411	ELECTRICAL MACHINES-III	4	0	3	100	-------
EE/5/T/412	ELECTRICAL UTILISATION & ILLUMINATION ENGINEERING	4	0	3	100	------
EE/5/T/413	POWER ELECTRONICS	4	0	3	100	
EE/5/T/414	DIGITAL SIGNAL PROCESSING	4	0	3	100	-----
EE/5/S/411	E.E. LABORATORY – V	0	4	3		100
EE/5/S/412	ELECTRICAL MACHINE DESIGN – III	0	4	3	--------	100
	Sub- Total	16	08		400	200
	Total	24			600	

4th Year 2nd Semester						
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/421	INTRODUCTION TO STATISTICAL & PROBABILISTIC METHODS	4	0	3	100	-------
EE/5/T/422	POWER SYSTEM PROTECTION & SWITCHGEAR	4	0	3	100	------
EE/5/T/423	ELECTRIC DRIVES	4	0	3	100	
EE/5/S/421	E.E. LABORATORY – VI	0	4	3		100
EE/5/S/422	MODELING AND DIGITAL SIMULATION LABORATORY	0	4	3	--------	100
EE/5/S/423	POWER ELECTRONICS DESIGN	0	4	3	--------	100
	Sub- Total	12	12		300	300
	Total	24			600	

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

	5^{th} Year 1^{st} Semester					
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/511	PRINCIPLES OF COMMUNICATION ENGINEERING & COMPUTER NETWORKS	4	0	3	100	-------
EE/5/T/512	ELECTIVE PAPER– I	4	0	3	100	------
EE/5/T/513	SPECIAL PAPER - I	4	0	3	100	
EE/5/T/514	PROCESS INSTRUMENTATION & CONTROL	4	0	3	100	
EE/5/S/511	ELECTIVE PROJECT & COMPUTATION – I	0	4	3		100
EE/5/S/512	SEMINAR – I	0	4	3	--------	100
	Sub- Total	16	08		400	200
	Total	24			600	

NOTES:

1. Students have to select ***any one*** of the following Specializations. The Elective subjects, 'Elective Project and Computation', and the 'Seminar' will be assigned accordingly

(a) CONTROL SYSTEMS
(b) HIGH VOLTAGE ENGINEERING
(c) ELECTRICAL MACHINES & DRIVES
(d) ELECTRICAL MEASUREMENTS & INSTRUMENTATION
(e) ELECTRICAL POWER SYSTEMS
(f) ILLUMINATION ENGINEERING

2. Subjects for Elective Paper-I

(a) DIGITAL CONTROL TECHNIQUES (Code: EE/5/T/513A)
(b) HIGH VOLTAGE TECHNIQUE – I (Code: EE/5/T/513B)
(c) SPECIAL ELECTRICAL MACHINES & DRIVES (Code: EE/5/T/513C)
(d) ADVANCED INSTRUMENTATION-I (Code: EE/5/T/513D)
(e) ADVANCED POWER SYSTEMS ANALYSIS (Code: EE/5/T/513E)
(f) ADVANCED ILLUMINATION ENGINEERING (Code: EE/5/T/513F)

5-Year BEE Course: New Curriculum
(Implemented from the Session 2014-2015)

3. SPECIAL PAPER - I

Students have to select any one of the following:

(a) NONLINEAR AND OPTIMAL CONTROL (Code: EE/5/T/514A)
(b) CONDITION MONITORING OF ELECTRICAL SYSTEMS (Code: EE/5/T/514B)
(c) RELIABILITY ENGINEERING (Code: EE/5/T/514C)
(d) ENERGY SYSTEMS (Code: EE/5/T/514D)

	5th Year 2nd Semester					
Code	**Subject**	**Pds / week**		**Credit**	**Marks**	
		L	**S**		**Exam**	**Sessional**
EE/5/T/521	ECONOMICS AND INDUSTRIAL MANAGEMENT	4	0	3	100	-------
EE/5/T/522	ELECTIVE PAPER– II	4	0	3	100	------
EE/5/T/523	SPECIAL PAPER - II	4	0	3	100	
EE/5/S/521	GENERAL VIVA VOCE	0	4	3		100
EE/5/S/522	ELECTIVE PROJECT & COMPUTATION – II	0	4	3	--------	100
EE/5/S/523	SEMINAR – II	0	0	3	--------	100
	Sub- Total	12	08		300	300
	Total	20			600	

1. **Subjects for Elective Paper-II**
   (a) ADVANCED CONTROL THEORY (Code: EE/5/T/522A)
   (b) HIGH VOLTAGE TECHNIQUE – II (Code: EE/5/T/522B)
   (c) ADVANCED ELECTRICAL MACHINE MODELLING & ANALYSIS (Code: EE/5/T/522C)
   (d) ADVANCED INSTRUMENTATION-II (Code: EE/5/T/522D)
   (e) ADVANCED TOPICS IN POWER SYSTEMS (Code: EE/5/T/522E)
   (f) ADVANCED LIGHTING DESIGN (Code: EE/5/T/522F)

2. **SPECIAL PAPER – II**
   Students have to select any one of the following:
   (a) ADVANCED COMPUTING TECHNIQUES (Code: EE/5/T/523A)
   (b) INTRODUCTION TO NANO- BIOTECHNOLOGY (Code: EE/5/T/523B)
   (c) PRINCIPLES OF SOFTWARE ENGG. (Code: EE/5/T/523C)
   (d) BIO-MEDICAL INSTRUMENTATION (Code: EE/5/T/523D)