

**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010**

**Electrical & Electronics Engineering.**  
**Common for All Branches**  
**SCHEME S1S2**

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 101	Engineering Mathematics I	2	1	-	50	100	3	5
EN010 102	Engineering Physics	1	1	-	50	100	3	4
EN010 103	Engineering. Chemistry & Environmental Studies	1	1	-	50	100	3	4
EN010 104	Engineering Mechanics	3	1	-	50	100	3	6
EN010 105	Engineering Graphics	1	3	-	50	100	3	6
EN010 106	Basic Civil Engineering	1	1	-	50	100	3	4
EN010 107	Basic Mechanical Engineering	1	1	-	50	100	3	4
EN010 108	Basic Electrical Engineering	1	1	-	50	100	3	4
EN010 109	Basic Electronics Engineering. & Information Technology	2	1	-	50	100	3	5
EN010 110	Mechanical Workshop	-	-	3	50	-	3	1
EN110 111	Electrical and Civil Workshops	-	-	3	100	-	3	1
	<b>Total</b>	<b>13</b>	<b>11</b>	<b>6</b>			<b>30</b>	<b>44</b>

**3<sup>rd</sup> Semester**

Code	Subject	Hours/week			Marks		End-sem duration	Credits
		L	T	P/D	Internal	End-sem		
EN010 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
EE 010 303	Electric Circuit Theory	2	2	-	50	100	3	4
EE010 304	Electrical Measurements and Measuring Instruments	3	1	-	50	100	3	4
EE 010 305	Electronic Circuits	3	1	-	50	100	3	4
EE 010 306(ME)	Mechanical Technology	3	1	-	50	100	3	4
EE010 307	Electrical Measurements Lab	-	-	3	50	100	3	2
EE 010 308	Mechanical Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### 4<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 401	Engineering Mathematics III	2	2	-	50	100	3	4
EE 010 402	DC Machines and Transformers	3	1	-	50	100	3	4
EE 010 403	Linear System Analysis	2	2	-	50	100	3	4
EE010 404	Electromagnetic Theory	3	1	-	50	100	3	4
EE 010 405	Digital Systems and Computer Organization	3	1	-	50	100	3	4
EE 010 406	Computer Programming	3	1	-	50	100	3	4
EE 010 407	Computer Programming Lab			3	50	100	3	2
EE 010 408	Electronic Circuits Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

### 5<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 501A	Engineering Mathematics IV	2	2	-	50	100	3	4
EN 010 502(ME)	Principles of Management	3	1		50	100	3	4
EE 010 503	Signals and Systems	2	2	-	50	100	3	4
EE010 504	Power Electronics	3	1	-	50	100	3	4
EE 010 505	Linear Integrated Circuits	3	1	-	50	100	3	4
EE 010 506	Microprocessors and Applications	3	1	-	50	100	3	4
EE010 507	Electrical Machines Lab I	-	-	3	50	100	3	2
EE010 508	Integrated Circuits Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

## 6<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
EE 010 601	Power Generation and Distribution	2	2	-	50	100	3	4
EE 010 602	Induction Machines	3	1	-	50	100	3	4
EE 010 603	Control Systems	2	2	-	50	100	3	4
EE 010 604	Digital Signal Processing	3	1	-	50	100	3	4
EE 010 605	Microcontrollers and Embedded Systems	3	1	-	50	100	3	4
EE 010 606Lxx	Elective I	2	2	-	50	100	3	4
EE 010 607	Power Electronics Lab	-	-	3	50	100	3	2
EE 010 608	Microprocessor and Microcontroller Lab	-	-	3	50	100	3	2
	Total	15	9	6				<b>28</b>

### Elective I

EE 010 606L01	High Voltage Engineering
EE 010 606L02	VLSI systems
EE 010 606L03	Artificial Neural Networks
EE 010 606L04	Object Oriented Programming
EE 010 606L05	Bio - medical engineering
EE 010 606L06	Renewable energy Sources

## 7<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
EN010 701	Electrical Power Transmission	2	2	-	50	100	3	4
EE 010 702	Synchronous Machines	2	1	-	50	100	3	4
EE010 703	Drives and Control	2	2	-	50	100	3	3
EE010 704	Modern Control Theory	2	1	-	50	100	3	3
EE010 705	Communication Engineering	2	1	-	50	100	3	3
EE 010 706Lxx	Elective II	2	2	-	50	100	3	4
EE010 707	Electrical CAD	-	-	3	50	100	3	2
EE 010 708	Electrical Machines Lab II	-	-	3	50	100	3	2
EE010 709	Seminar	-	-	2	50	-	-	2
EE 010 710	Project	-	-	-	50	-	-	1
	Total	12	9	9				<b>28</b>

**Elective II**

EE010 706L01	H V D C Transmission
EE010 706L02	Industrial Instrumentation
EE010 706L03	Power Quality
EE010 706L04	PLC Based systems
EE010 706L05	MEMS Technology
EE010 706L06	Special Electrical Machines

**8<sup>th</sup> Semester**

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EE010 801	Power System Analysis	2	2	2	50	100	3	4
EE010 802	Switch Gear and Protection	2	2	-	50	100	3	4
EE 010 803	Electrical System Design	3	2	-	50	100	3	4
EE010 804Lxx	Elective III	2	2	-	50	100	3	4
EE 010 805Gxx	Elective IV	2	2	-	50	100	3	4
EE 010 806	Control and Simulation Lab	-	-	3	50	100	3	4
EE010 807	Project	-	-	6	100	-	-	2
EE 010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

**Electives III**

EE010 804L01	Advanced Power System
EE010 804L02	Computer Networks
EE010 804L03	Generalized Machine Theory
EE010 804L04	Finite Element applications in Electrical Engineering.
EE010 804L05	Digital Signal Processors
EE010 804L06	Opto Electronics

**Electives IV**

EE010 805G01	Soft Computing Techniques
EE010 805G02	Intellectual property rights
EE010 805G03	Advanced Mathematics
EE010 805G04	Virtual Instrumentation
EE010 805G05	Digital Image Processing
EE010 805G06	Distributed Power Systems