

**EVALUATION SCHEME - B.TECH (ELECTRICAL ENGINEERING)**

SEMESTER- III													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KOE031-38/ KAS302	Engg. Science Course/Maths IV	3	1	0	30	20	50		100		150	4
2	KAS301/ KVE301	Technical Communication/ Universal Human values	2	1	0	30	20	50		100		150	3
			3	0	0								
3	KEE301	Electromagnetic Field Theory	3	1	0	30	20	50		100		150	4
4	KEE302	Electrical Measurements & Instrumentation	3	1	0	30	20	50		100		150	4
5	KEE303	Basic Signals & Systems	3	1	0	30	20	50		100		150	3
6	KEE351	Analog Electronics Lab	0	0	2				25		25	50	1
7	KEE352	Electrical Measurements and Instrumentation Lab	0	0	2				25		25	50	1
8	KEE353	Electrical Workshop	0	0	2				25		25	50	1
9	KEE354	Mini Project or Internship Assessment*	0	0	2			50				50	1
10	KNC301/ KNC302	Computer System Security/Python Programming	2	0	0	15	10	25		50			0
11		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>										<b>950</b>	<b>22</b>
<i>*The Mini Project or internship (3-4 weeks) conducted during summer break after II semester and will be assessed during III semester.</i>													
SEMESTER IV													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KAS402/ KOE041-48	Maths IV/ Engg. Science Course	3	1	0	30	20	50		100		150	4
2	KVE401/ KAS401	Universal Human Values/Technical Communication	3	0	0	30	20	50		100		150	3
			2	1	0								
3	KEE401	Digital Electronics	3	0	0	30	20	50		100		150	3
4	KEE402	Electrical Machines-I	3	1	0	30	20	50		100		150	4
5	KEE403	Networks Analysis & Synthesis	3	1	0	30	20	50		100		150	4
6	KEE451	Circuit Simulation Lab	0	0	2				25		25	50	1
7	KEE452	Electrical Machines - I Lab	0	0	2				25		25	50	1
8	KEE453	Digital Electronics Lab	0	0	2				25		25	50	1
9	KNC402/ KNC401	Python Programming/Computer System Security	2	0	0	15	10	25		50			0
10		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>										<b>900</b>	<b>21</b>

SEMESTER V													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KEE501	Power System - I	3	1	0	30	20	50		100		150	4
2	KEE502	Control System	3	1	0	30	20	50		100		150	4
3	KEE503	Electrical Machines-II	3	1	0	30	20	50		100		150	4
4	KEE051- KEE054	Departmental Elective-I	3	0	0	30	20	50		100		150	3
5	KEE055- KEE058	Departmental Elective-II	3	0	0	30	20	50		100		150	3
6	KEE551	Power System-I Lab	0	0	2				25		25	50	1
7	KEE552	Control System Lab	0	0	2				25		25	50	1
8	KEE553	Electrical Machines - II Lab	0	0	2				25		25	50	1
9	KEN554	Mini Project or Internship Assessment*	0	0	2				50			50	1
10	KNC501/ KNC502	Constitution of India, Law and Engineering / Indian Tradition, Culture and Society	2	0	0	15	10	25		50			
11		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>17</b>	<b>3</b>	<b>8</b>							<b>950</b>	<b>22</b>
*The Mini Project or internship (4 weeks) conducted during summer break after IV semester and will be assessed during V semester.													
<b>Department Elective - I</b>													
KEE051 Robotics						KEE055 Optimization Techniques							
KEE052 Sensors and Transducers						KEE056 Neural Networks & Fuzzy System							
KEE053 Industrial Automation and Control						KEE057 Digital Signal Processing							
KEE054 Electrical Standards and Engineering Practices						KEE058 Analog & Digital Communication							
SEMESTER VI													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KEE601	Power System-II	3	1	0	30	20	50		100		150	4
2	KEE602	Micro Processor and Microcontroller	3	1	0	30	20	50		100		150	4
3	KEE603	Power Electronics	3	1	0	30	20	50		100		150	4
4	KEE06*	Departmental Elective-III	3	0	0	30	20	50		100		150	3
5	KOE06*	Open Elective-I	3	0	0	30	20	50		100		150	3
6	KEE651	Power System-II Lab	0	0	2				25		25	50	1
7	KEE652	Micro Processor and Microcontroller Lab	0	0	2				25		25	50	1
8	KEE653	Power Electronics Lab	0	0	2				25		25	50	1
10	KNC601/ KNC602	Constitution of India, Law and Engineering / Indian Tradition, Culture and Society	2	0	0	15	10	25		50			
11		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>17</b>	<b>3</b>	<b>6</b>							<b>900</b>	<b>21</b>

**Department Elective - III**

KEE 061 Special Electrical Machines

KEE 062 Electrical Machine Design

KEE 063 Digital Control System

KEE 064 Electrical and Hybrid Vehicles

SEMESTER- VII													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1		HSMC -1 #/ HSMC-2 # [Annexure - B(iii)]	3	0	0	30	20	50			100	150	3
2		Departmental Elective-IV	3	0	0	30	20	50			100	150	3
3		Departmental Elective-V	3	0	0	30	20	50			100	150	3
4		Open Elective-II [Annexure - B(iv)]	3	0	0	30	20	50			100	150	3
5		Electrical Automation Lab	0	0	2					25	25	50	1
6		Mini Project or Internship Assessment*	0	0	2					50		50	1
7		Project	0	0	8					50	100	150	4
8		MOOCs (Essential for Hons. Degree)											
		<b>TOTAL</b>	<b>12</b>	<b>0</b>	<b>12</b>							<b>850</b>	<b>18</b>

\*The Mini Project or internship (4 - 6 weeks) conducted during summer break after VI semester and will be assessed during VII semester.

Department Elective - IV	Department Elective - V
Electric drives	Power System Protection
Energy Conservation and Auditing	Power System dynamics and Control
HVDC & AC Transmission	Power Quality and FACTS
Industrial Automation & Control	Air & Gas Insulated Switchgear
Substation Automation Systems	Deregulated Power System

SEMESTER- VIII													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1		HSMC-2#/HSMC-1# [Annexure - B(iii)]	3	0	0	30	20	50			100	150	3
2		Open Elective-III [Annexure - B(iv)]	3	0	0	30	20	50			100	150	3
3		Open Elective-IV [Annexure - B(iv)]	3	0	0	30	20	50			100	150	3
4		Project	0	0	18					100	300	400	9
5		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>18</b>							<b>850</b>	<b>18</b>

	5400	122
<b>First Year Credit &amp; Marks</b>	<b>1350</b>	<b>38</b>
<b>Total</b>	<b>6750</b>	<b>160</b>

# HSMC-Humanties & Social Science including Management Courses  
+Non Credit Course  
\$ Maths-III [Transform & Discrete] - To be offered to CE and allied branches  
\$ Maths-IV [PDE & P&S]-To be offered to CSE, EE,EC,CH,ME,TX and allied branches  
\$ Maths-V - To be offered to BT, AG and allied branches

Note:-

- Every course in AICTE Model Curriculum shall be prepared with "Course Outcome (CO)" by the respective BOS.
- The Non Credit Courses (Cyber Security, Environment Science, Constitution of India, and Essence of Indian Traditional Knowledge) shall be conducted through NPTEL@Moocs.
- The courses of 8th semester in B.Tech. Model curriculum can optionally be done through NPTEL/MOOCs.
- The Internships after 1st and 2nd year may be done at college level under the supervision of faculty members, though, the internship after 3rd year shall preferably be done in the suitable industry.
- Virtual Lab to be emphasized as one of the lab (as applicable) during the B.Tech. study programme and, the respective BOS Conveners shall adopt the same while framing the syllabus.

SEMESTER- VII													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1		HSMC -1 #/ HSMC-2 # [Annexure - B(iii)]	3	0	0	30	20	50		100		150	3
2		Departmental Elective-IV	3	0	0	30	20	50		100		150	3
3		Departmental Elective-V	3	0	0	30	20	50		100		150	3
4		Open Elective-II [Annexure - B(iv)]	3	0	0	30	20	50		100		150	3
5		LAB-1	0	0	2				25		25	50	1
6		Mini Project or Internship Assessment*	0	0	2				50			50	1
7		Project	0	0	8				50		100	150	4
8		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>12</b>						<b>850</b>	<b>18</b>	

\* The Mini Project or internship (4 - 6 weeks) conducted during summer break after VI semester and will be assessed during VII semester. **SEMESTER- VIII**

SEMESTER VIII													
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1		HSMC-2#/HSMC-1# [Annexure - B(iii)]	3	0	0	30	20	50		100		150	3
2		Open Elective-III [Annexure - B(iv)]	3	0	0	30	20	50		100		150	3
3		Open Elective-IV [Annexure - B(iv)]	3	0	0	30	20	50		100		150	3
4		Project	0	0	18				100		300	400	9
5		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>18</b>						<b>850</b>	<b>18</b>	

5400 122

First Year 1350 38

Total 6750 160

# HSMC-Humanties & Social Science including Management Courses

. +Non Credit Course

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Note:-

- a. Every course in AICTE Model Curriculum shall be prepared with “Course Outcome (CO)” by the respective BOS.
- b. The Non Credit Courses (Cyber Security, Environment Science, Constitution of India, and Essence of Indian Traditional Knowledge) shall be conducted through NPTEL@Moocs.
- c. The courses of 8th semester in B.Tech. Model curriculum can optionally be done through NPTEL/MOOCs.
- d. The Internships after 1st and 2nd year may be done at college level under the supervision of faculty members, though, the internship after 3rd year shall preferably be done in the suitable industry.
- e. Virtual Lab to be emphasized as one of the lab (as applicable) during the B.Tech. study programme and, the respective BOS Conveners shall adopt the same while framing the syllabus.

Annexure- B(ii)

Engineering Science Courses(Tentative)

1	Engineering Mechanics	To be offered to any Engg branch except ME/ CE/AG and allied branches
2	Material Science	
3	Energy Science & Engineering	To be offered to any Engg branch except EE and allied branches
4	Sensor & Instrumentation	
5	Basics Data Structure & Algorithms	To be offered to any Engg branch except CSE and allied

6	Introduction to Soft computing	branches
7	Analog Electronic Circuits	To be offered to any Engg branch except EC and allied branches
8	Electronic Engineering	

Important Note:

Engg. and allied branches can be offered any of the above