

Scheme of Studies and Examination
B.TECH (Robotics and Automation Engineering) – 5th Semester
w.e.f. 2023-24

S. N.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-ME-301G	Computer Aided Design & Manufacturing	3	0	0	0	3	25	75		100	3
2	PCC- RA-303G	Industrial Automation & Robotics	3	1	0	3	3	25	75		100	3
3	ESC-CSE-205G	Digital Electronics	3	0	0	3	3	25	75		100	3
4	PCC- ME-307G	Kinematics of Machine	3	0	0	3	3	25	75		100	3
5	PCC-CSE-203G	Data Structures & Algorithms	3	0	0	3	3	25	75		100	3
6	OEC/HSMC-I	Refer List -I	2	0	0	2	2	25	75		100	3
7	LC-ME-311G	Computer Aided Design & Manufacturing Lab	0	0	2	2	1	25		25	50	3
8	LC-CSE-211G	Digital Electronics Lab	0	0	2	2	1	25		25	50	3
9	LC-ME-315G	Kinematics of Machine Lab	0	0	2	2	1	25		25	50	3
9	LC-CSE-213G	Data Structures & Algorithms LAB Using C	0	0	2	2	1	25		25	50	3
10												
11	PT-RA-319G	Practical Training-I	0	0	2	2	0					3
12	MC-315G	Essence of Indian Traditional knowledge										
TOTAL							21	250	450	100	800	

Note 1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.

Note 2. The evaluation of 'Essence of Indian Traditional Knowledge (MC-315G) be based on grades i.e. A,B,C & F. The student who is awarded 'F' grade is required to repeat the subject.

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

OPEN ELECTIVE COURSES (OEC)/ HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-I

LIST-I (Semester -V) (Choose any one from the following list.)

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	HSMC-01G	Economics For Engineers	2	2
2.	HSMC-03G	Finance and Accounting	2	2
3.	OEC –RA-301G	Air and Noise Pollution and Control	2	2
4.	OEC –RA-303G	Installation Testing & Maintenance of Electrical Equipments	2	2
5.	OEC –RA-305G	Microprocessor and Interfacing	2	2

Note: Students have to select any one subject from the above list of courses.

Scheme of Studies and Examination
B.TECH (Robotics and Automation engineering) – 6th Semester
w.e.f. 2023-24

S. N.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-ME-302G	Manufacturing Technology	3	0	0	3	3	25	75		100	
2	PCC- RA-304G	Robotics Engineering and Application	3	0	0	3	3	25	75		100	
3	PCC- EE-309G	Microprocessor & Microcontroller	3	1	0	4	4	25	75		100	
4	PCC- RA-308G	Artificial intelligence in Robotics	3	0	0	3	3	25	75		100	
5	LC-ME-310G	Workshop Lab-I	0	0	3	3	1.5	25		25	50	
6	LC-RA-312G	Robotics Engineering and Application Lab	0	0	2	2	1	25		25	50	
7	LC-EE-311G	Microprocessor & Microcontroller Lab	0	0	2	2	1	25		25	50	
8	LC-RA-316G	Artificial Intelligence Lab using python	0	0	2	2	1	25		25	50	
9	PCC-RA-318G	Seminar	0	0	2	2	1	50			50	
10	PEC	Professional Elective Courses(PEC): Refer List -I	3	0	0	3	3	25	75		100	
11	HSMC-II	Refer List -II	2	0	0	2	2	25	75		100	
TOTAL							23.5	300	450	100	850	

NOTE:

- Each student has to undergo practical training of 4/6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.
- Assessment of Practical Training-II, undergone at the end of VI semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry/ Professional organization/ Research Laboratory etc. According to performance letter grades A, B, C, F are to be awarded:

Excellent: A; Good : B; Satisfactory:C; notsatisfactory: F.

A student who has been awarded 'F' grade will be required to repeat the practical training.

PROFESSIONAL ELECTIVE COURSES (PEC) (Semester-VI) LIST-I

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-RA-320G	Internal Combustion Engines & Gas Turbines	3	3
2.	PEC-RA-322G	Welding Technology	3	3
3.	PEC-RA-324G	Air Craft Technology	3	3
4.	PEC-RA-326G	Reliability, Availability & Maintainability	3	3

Note: Students will have to select any one out of the list.

HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-II.

List-II (Semester-VI)

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	HSMC -02G	Organizational Behaviour	2	2
2.	HSMC -04G	Human Resource Management	2	2
3.	HSMC -06G	Industrial Psychology	2	2
4.	HSMC -08G	Fundamentals of Management	2	2

Note: Students have to select any one subject from the above list of courses.