Visvesvaraya Technological University

Department of Mechanical Engineering

Admission open for B.Tech 2020

Course offered

In

ROBOTICS AND AUTOMATION

In Collaboration with

CMTI   **CMTI**   **&**   **MTAB Chennai**   **MTAB**

As the world we live is becoming more technologically advanced, it has created a greater need for introducing automated systems in our daily use. The Visvesvaraya Technological University's unique Bachelor of Technology in Robotics & Automation program allows students to explore the world of robotic engineering, paving the way for a bright future in the growing industry of robotics. In today's society, it is almost impossible to function without using some form of technology, making it easy to apply this program in modern life.

Automation & Robotics Engineering Course will provide a comprehensive educational environment and enable students to gain expertise in next generation robotics and automation systems. Our program will prepare a skilled industry workforce as well as expert researchers who will be able to provide leadership in a world that is increasingly dependent on technology. The students will have career opportunities in manufacturing, research and engineering, agriculture, mining, space exploration, power-plant maintenance and a variety of other areas.

In collaborations with MTAB Chennai, VTU has installed two different types of robots **AR-6 and SCARA** with advanced robotics simulation software and a complete eLearning solution allowing VTU to contribute a lot of skill Development activity of Students, Faculties, Professionals and job Seekers.

FEATURES

- **Experienced & Expert Faculty**
- **Placement support by VTU**
- **Curriculum designed by experts of the field**
- **Fully Residential Program**
- **Completely Autonomous**
- **Intake restricted to 30 and personal care to each student**
- **Government College fees**
- **Admission through CET/KEA only**
- **Department has centre of excellence in Visualization Engineering (in collaboration with ALTEM Technologies)**
  - **Department has centre of excellence in Computer Aided Engineering (in collaboration with DHIO Research & Engineering)**

Visvesvaraya Technological University (VTU) has taken initiative for Industry driven Undergraduate B.Tech program on Robotics & Automation at VTU Belagavi from academic year 2020 -21. Highly qualified personnel from industry and academia will drive the program.

For Admission Contact

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: ROBOTICS AND AUTOMATION

III SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department	Teaching Hours /Week			Examination				
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P					
1	BSC	20MAT31	Transform Calculus, Fourier Series and Numerical Techniques (Common to all Branches)	Mathematics	2	2	--	03	40	60	100	3
2	PCC	20RA32	Mechanics of Materials	Mechanical	3	2	--	03	40	60	100	4
3	PCC	20RA33	Data Structure with C	C S	3	0	--	03	40	60	100	3
4	PCC	20RA34	Thermal Engineering	Mechanical	3	0	--	03	40	60	100	3
5	PCC	20RA35	Analog & Digital electronic circuits	E & C	3	0	--	03	40	60	100	3
6	PCC	20RA36	Computer Aided Machine Drawing	Mechanical	3	0	--	03	40	60	100	3
7	PCC	20RAL37	Data structure with C Lab	C S	--	2	2	03	40	60	100	2
8	PCC	20RAL38	Analog /Digital electronics Lab	E & C	--	2	2	03	40	60	100	2
9	HSMC	20KVK39	Vyavaharika Kannada (Kannada for communication)/	HSMC	--	2	--	--	100	--	100	1
		20KAK39	Aadalitha Kannada (Kannada for Administration)									
			OR									
		20CPC39	Constitution of India, Professional Ethics and Cyber Law		1	--	--	03	40	60		
					Examination is by objective type questions							
			TOTAL		**17 OR 18**	**10 OR 08**	**04**	**24 OR 27**	**420 OR 360**	**480 OR 540**	**900**	**24**

Note: BSC: Basic Science, PCC: Professional Core, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course.

18KVK39Vyavaharika Kannada (Kannada for communication) is for non-kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

10	NCMC	20MATDIP31	Additional Mathematics - I	Mathematics	02	01	--	03	40	60	100	0

(a)The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B.Tech programs,shall attend the classes during therespective semesters to complete all the formalities of the course and appear for the University examination.In case, any student fails to register for the said course/fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student have to fulfil the requirements during subsequent semester/s to appear for SEE.

(b)These Courses shall not beconsidered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Continued

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
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Programme: ROBOTICS AND AUTOMATION

III SEMESTER (continued)

Courses prescribed to lateral entry B.Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE Activity Points to be earned by students admitted to BE/B.Tech/B.Plan day college programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines):

Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. Students transferred from other Universities to fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card.

The activities can be can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, minimum hours' requirement should be fulfilled. Activity Points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.

In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: B.E. ROBOTICS AND AUTOMATION

IV SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination					Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks		
					L	T	P						
1	BSC	20MAT41	Mathematics(Title as per the decision of BoS in Sciences)	Mathematics	2	2	--	03	40	60	100		3
2	PCC	20RA42	Theory of Machines	Mechanical	3	2	--	03	40	60	100		4
3	PCC	20RA43	Manufacturing Technology	Mechanical	3	0	--	03	40	60	100		3
4	PCC	20RA44	Fluid Mechanics & Fluid Machines	Mechanical	3	0	--	03	40	60	100		3
5	PCC	20RA45	Instrumentation & Control Systems	Mechanical/ E & E	3	0	--	03	40	60	100		3
6	PCC	20RA46	Microcontroller	E & C	3	0	--	03	40	60	100		3
7	PCC	20RAL47	Microcontroller Laboratory	E & C	--	2	2	03	40	60	100		2
8	PCC	20RAL48	Instrumentation and control systems Laboratory	Mechanical/ E & E	--	2	2	03	40	60	100		2
9	HSMC	20KVK39/49	Vyavaharika Kannada (Kannada for Communication)/	HSMC	--	2	--	--	100	--	100	1
		20KAK39/49	Aadalitha Kannada (Kannada for Administration)									
		OR										
		20CPC39/49	Constitution of India, Professional Ethics and Cyber Law		1	--	--	03	40	60		
					Examination is by objective type questions							
			TOTAL		**17**	**10**	**04**	**24**	**420**	**480**	**900**	**24**
					OR	**OR**		**OR**	**OR**	**OR**		
					18	**08**		**27**	**360**	**540**		

Note: BSC: Basic Science, PCC: Professional Core, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course.

18KVK39/49Vyavaharika Kannada (Kannada for communication) is for non-kannada speaking, reading and writing studentsand 18KAK39/49Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs												
10	NCMC	20MATDIP41	Additional Mathematics - II	Mathematics	02	01	--	03	40	60	100	0

(a)The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B.Tech programs,shall attend the classes during therespective semesters to complete all the formalities of the course and appear for the University examination.In case, any student fails to register for the said course/fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student have to fulfil the requirements during subsequent semester/s to appear for SEE.
(b)These Courses shall not beconsidered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI **Scheme of Teaching and Examination 2018 – 19** **Outcome Based Education(OBE) and Choice Based Credit System (CBCS)** **(Effective from the academic year 2020-21)**
Programme: B.E. ROBOTICS AND AUTOMATION
IV SEMESTER (continued)
Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs
Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.
AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: B.E. ROBOTICS AND AUTOMATION

V SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination					Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks		
					L	T	P						
1	HSMC	20RA51	Technological Innovation Management And Entrepreneurship		2	2	--	03	40	60	100		3
2	PCC	20RA52	Design and Analysis of Machine Elements	Mechanical	3	2	--	03	40	60	100		4
3	PCC	20RA53	Virtual Instrumentation	E & C	3	2	--	03	40	60	100		4
4	PCC	20RA54	Hydraulics and Pneumatics	Mechanical	3	--	--	03	40	60	100		3
5	PCC	20RA55	Robot Programming	E & C / Mechanical	3	--	--	03	40	60	100		3
6	PCC	20RA56	Mechatronics	E & C / Mechanical	3	--	--	03	40	60	100		3
7	PCC	20RAL57	Virtual Instrumentation and Automation Laboratory	E & C	--	2	2	03	40	60	100		2
8	PCC	20RAL58	Robotic programming and simulation Laboratory	Mechanical	--	2	2	03	40	60	100		2
9	HSMC	20CIV59	Environmental Studies	Civil/Environmental [Paper setting Board: Civil Engineering]	1	--	--	02	40	60	100		1
				TOTAL	**18**	**10**	**4**	**26**	**360**	**540**	**900**		**25**

Note: PCC: Professional Core, HSMC: Humanity and Social Science.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: BE AUTOMATION & ROBOTICS

VI SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					Theory Lecture	Tutorial	Practical / Drawing					
					L	T	P					
1	PCC	20RA61	PLC and SCADA	E & C/ C S	3	2	--	03	40	60	100	4
2	PCC	20RA62	FINITE ELEMENT METHODS	Mechanical	3	2	--	03	40	60	100	4
3	PCC	20RA63	BASICS POWER ELECTRONIC (MOTORS AND DRIVES)	E & C/ E & E	3	2	--	03	40	60	100	4
4	PEC	20RA64X	Professional Elective -1		3	--	--	03	40	60	100	3
5	OEC	20RA65X	Open Elective –A		3	--	--	03	40	60	100	3
6	PCC	20RAL66	PLC AND SCADA Laboratory	E & C	--	2	2	03	40	60	100	2
7	PCC	20RAL67	COMPUTER AIDED MODELLING AND ANALYSIS Laboratory	Mechanical	--	2	2	03	40	60	100	2
8	MP	20RAMP68	Mini-project		--	--	2	03	40	60	100	2
9	Internship	--	Internship	To be carried out during the vacation/s of VI and VII semesters and /or VII and VIII semesters.								
				TOTAL	15	10	6	24	320	480	800	24

Note: PCC: Professional core, PEC: Professional Elective, OE: Open Elective, MP: Mini-project.

Professional Elective -1	
Course code under18XX64X	**Course title**
20RA641	Wireless Networks & Communication (E & C/ C S)
20RA642	Micro and Smart Systems Technology (E & C/ C S)
20RA643	Drives and Controls for Robots (E & E/ Mechanical)
20RA644	Artificial neural network (C S / E & C)
20RA645	Automation in Manufacturing (Mechanical)

Open Elective -A

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 18XX65X).

Selection of an open elective shall not be allowed if,

• The candidate has studied the same course during the previous semesters of the programme.
• The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.
• A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

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Programme: B.E AUTOMATION & ROBOTICS

VI SEMESTER (continued)

Mini-project work:
Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini-project can be assigned to an individual student or to a group having not more than 4 students.

CIE procedure for Mini-project:
(i) Single discipline:The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the Mini-project work, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all the guides of the college.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

SEE for Mini-project:
(i) Single discipline: Contribution to the Mini-project and the performance of each group member shall be assessed individually in the semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the Mini-project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belong to.

Internship: All the students admitted to III year of BE/B.Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: B.E. In Robotics and Automation

VII SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Duration in hours	Examination			Credits
					Theory Lecture	Tutorial	Practical/ Drawing		CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	PCC	20RA71	Industrial Robotics	Mechanical/ E&C	3	--	--	03	40	60	100	3
2	PCC	20RA 72	Internet of Things	C S	3	--	--	03	40	60	100	3
3	PEC	20RA 73X	Professional Elective - 2		3	--	--	03	40	60	100	3
4	PEC	20RA 74X	Professional Elective - 3		3	--	--	03	40	60	100	3
5	OEC	20RA 75X	Open Elective –B		3	--	--	03	40	60	100	3
6	PCC	20RAL76	Robotics Lab	Mechanical/ E&C	--	2	2	03	40	60	100	2
7	PCC	20RA L77	CNC Lab	Mechanical	--	2	2	03	40	60	100	2
8	Project	20RA P78	Project Work Phase – 1		--	--	2	--	100	--	100	1
9	Internship	--	Internship	(If not completed during the vacation of VI and VII semesters, it shall be carried out during the vacation of VII and VIII semesters)								
				TOTAL	15	4	6	18	340	360	700	20

Note: PCC: Professional core, PEC: Professional Elective.

Professional Elective – 2	
Course code under 18XX73X	**Course Title**
20RA 731	Computer Aided Design & Manufacturing (Mechanical)
20RA 732	Automation In Process Control (E&C/ Mechanical)
20RA 733	OOPS using C++ (C S)
20RA 734	Analytical Instrumentation (E&E/ E&C)
20RA 735	Non Destructive Testing & Evaluation (Mechanical)

Professional Elective – 3	
20RA 71	Machine Learning (C S)
20RA 72	Digital Image Processing (E&C)
20RA 73	Mechanical vibration (Mechanical)
20RA 74	Power Electronics (E&E/ E C)
20RA 75	Composite Materials & Testing (Mechanical)

continued

Open Elective –B

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 18XX75X).

Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the programme.
- The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

Project work:

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary project can be assigned to an individual student or to a group having not more than 4 students. In extraordinary cases, like the funded projects requiring students from different disciplines, the project student strength can be 5 or 6.

CIE procedure for Project Work Phase - 1:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of the project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the Project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

Internship: All the students admitted to III year of BE/B.Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination 2018 – 19
Outcome Based Education(OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2020-21)

Programme: BE IN ROBOTICS AND AUTOMATION

VIII SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P					
1	PCC	20RA81	Automotive Electronics & Hybrid Vehicles	E & E/ Mechanical	3	--	--	03	40	60	100	3
2	PEC	20RA82X	Professional Elective - 4		3	--	--	03	40	60	100	3
3	Project	20RAP83	Project Work Phase – 2		--	--	2	03	40	60	100	8
4	Seminar	20RAS84	Technical Seminar		--	--	2	03	100	--	100	1
5	Internship	20RAI85	Internship	Completed during the vacation/s of VI and VII semesters and /or VII and VIII semesters.)				03	40	60	100	3
				TOTAL	06	--	4	15	260	240	500	18

Note: PCC: Professional Core, PEC: Professional Elective.

Professional Electives – 4

Course code under 20RA82X	Course Title	
20RA821	Management Information Systems	(Mechanical)
20RA822	Biomedical Signal Processing	(E & C)
20RA823	Flexible Manufacturing systems	(Mechanical)
20RA824	Communication system	(E & C)
20RA825	Additive Manufacturing	(Mechanical)

Project Work
CIE procedure for Project Work Phase - 2:
(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.
The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.
(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.
The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

Programme: BE IN ROBOTICS AND AUTOMATION

VIII SEMESTER (continued)

SEE for Project Work Phase - 2:
(i) Single discipline: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted at the department.
(ii) Interdisciplinary: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belong to.
Internship: Those, who have not pursued /completed the internship shall be declared as fail and have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.
Activity points of the students who have earned the prescribed AICTE activity Points shall be sent the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).