

(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme
with effective from 2020-21 [2020-24 & 2021-25 Batch]

Department of Computer Science & Engineering

Class: S. Y. B. Tech

Semester: III

		Te	achin	g sche	me		Ev	aluatio	n Schem	e	
Course	Course				ts			Theory (Marks			actical (arks)
Code	Course	L	Т	P	Credits	Scheme	Max	Mi	n for ng (%)	Max	Min for Passing (%)
						ISE	20			-	-
000012	0	3			3	UT-1	15	40	40	-	-
CS2013	Computer Organization	3	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20			-	-
000000	Data structure &	_			ا م	UT-1	15	40	40	-	
CS2033	Algorithms	3	-	-	3	UT-2	15		40	-	-
						ESE	50	40	1	-	-
						ISE	20			-	-
					ا م	UT-1	15	40	40	-	-
CS2053	Digital Electronics	3	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20			-	-
		3	1	-	4	UT-1	15	40	40	-	-
CS2073	Discrete Mathematics	F				UT-2	15		40	-	-
						ESE	50	40		-	-
	-517					ISE	20			-	-
						UT-1	15	40	40	-	-
CS2093	Operating Systems	3	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	-
	Advanced C	_		_	_	ISE	-		_	50	50
CS2113	Programming Lab	2	-	2	3	ESE	-		_	50	50
	Data structure &					ISE	-		-	50	50
CS2133	Algorithms Lab	-	-	4	2	ESE	-		_	50	50
CS2153	Digital Electronics Lab	-	-	2	1	ISE	-		-	100	50
CS2173	Technical Aptitude-I	_	-	2	1	ESE	-		-	100	50
	Open Elective-II Choice-based Soft Skills Program - I	-	-	2	1	ISE	-		-	100	50
	Total	17	1	12	24					200000000000000000000000000000000000000	

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week

: 30

Total Credits

: 24

Note*: One extra lecture to be allotted to Environment Science in time Table.

Technical Aptitude Courses

: CS2013, CS2033, CS2053, CS2073, CS2093, CS2113





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Curriculum Structure and Evaluation Scheme
with effective from 2020-21 [2020-24 & 2021-25 Batch]

Department of Computer Science & Engineering

Open Elective-II

Sr. No.		Subject Name	Course Code
1.		Personal Effectiveness & Body	SH2593
		Language Interpersonal Skills (Work life	SH2613
2.		Balance)	3112013
3.	Choice Based Soft Skill	Leadership & Public Speaking	SH2633
4.	Program-I & II	Innovation Tools and Methods for Entrepreneurs	SH2693
5.		German Language – Basic Level	SH2733
6.		Japanese Language – Basic Level	SH2713

Note:

- A student has to complete any two courses out of six choices offered under Choice Based Soft Skills Programme. A course in each semester will be allocated without any repetition.
- 2. The students who have completed 'German Language Lab' or 'Japanese Language Lab' in F.Y. B. Tech should not give their choice for 'German Language Basic Level' and 'Japanese Language Basic Level'. Such students may give their choices for 'German Language Advanced Level' and 'Japanese Language Advanced Level' (batch sizes 40 each) in the S.Y. B. Tech Sem-IV only.
- 3. The students who will select and will successfully complete 'German Language Basic Level' and 'Japanese Language Basic Level' in S.Y. B. Tech Sem-III will by default (mandatorily) appear for Advance Levels of said courses in Semester-IV.





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Curriculum Structure and Evaluation Scheme
with effective from 2020-21 [2020-24 & 2021-25 Batch]

Department of Computer Science & Engineering

Class: S. Y. B. Tech

Semester: IV

		Т	eachi	ng sch	eme		Ev	aluatio	n Sche	me	1000
Course	Course				its			Theory Marks			actical Iarks)
Code	Course	L	T	P	Credits	Scheme	Max	Pas	for sing (6)	Max	Min for Passing (%)
						ISE	20			-	-
000000	Commenter Nationalis	2			3	UT-1	15	40	40	-	*
CS2003	Computer Networks	3	-	-)	UT-2	15		40	-	-
						ESE	50	40		-	_
						ISE	20			-	-
CS2023	Formal Language &	3	_		3	UT-1	15	40	40	-	-
CS2023	Automata Theory	3	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	
						ISE	20			-	-
OF2262	Engineering Maghanias	2			2	UT-1	15	40	40	-	**
CE2263	Engineering Mechanics		-		UT-2	15		40	-	-	
	4					ESE	50	40		-	-
						ISE	20			-	-
SH2023	Engineering Mathematics	3	1	_	4	UT-1	15	40	40	-	-
SH2023	- III	5	1	-	7	UT-2	15		40		-
						ESE	50	40		-	-
CS2043	Computer Networks Lab	_	_	2	1	ISE	-		-	50	50
C520+3	Computer Networks Eur			_		ESE	-		-	50	50
GG00/0	Object Oriented	_		4	4	ISE	-		-	50	50
CS2063	Programming Lab	2	-	4	4	ESE	-		- 1	50	50
CE2283	Engineering Mechanics Lab	-	-	2	1	ISE	-	•	-	50	50
	Open Elective-III Choice-based Soft Skills Program - II	-	-	2	1	ISE	-		-	100	50
0110150	F ' 116'	1*			1	ISE	50	40	40	-	-
SH2173	Environmental Science	1*	-	-	1	ESE	50	40	40	-	-
SH2603	Environmental Science Project	-		2	1	ISE	-			100	50
CS2083	Technical Aptitude-II	-	-	2	1	ESE	•	- 100		50	
	Total	14	1	14	22						

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 29
Total Credits : 22

Technical Aptitude Courses : CS2003, CS2023, SH2023, CS2063

Note: Students are required to undergo industrial field training of minimum four weeks in the vacation of Semester-IV and its evaluation will be carried out in the Semester-V

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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering

Open Elective-III

Sr. No.		Subject Name	Course Code
1.		Personal Effectiveness & Body Language	SH2593
2.		Interpersonal Skills (Work life Balance)	SH2613
3.	Choice Based Soft Skill	Leadership & Public Speaking	SH2633
4.	Program-I & II	Innovation Tools and Methods for Entrepreneurs	SH2693
5.		German Language – Advanced Level	SH2643
6.		Japanese Language – Advanced Level	SH2623

Note:

- 1. A student has to complete any two courses out of six choices offered under Choice Based Soft Skills Programme. A course in each semester will be allocated without any repetition.
- 2. The students who have completed 'German Language Lab' or 'Japanese Language Lab' in F.Y. B.Tech should not give their choice for 'German Language Basic Level' and 'Japanese Language Basic Level'. Such students may give their choices for 'German Language Advanced Level' and 'Japanese Language Advanced Level' (batch sizes 40 each) in the S.Y. B. Tech. Sem-IV only.
- 3. The students who will select and will successfully complete 'German Language Basic Level' and 'Japanese Language Basic Level' in S.Y. B.Tech Sem-III will by default (mandatorily) appear for Advance Levels of said courses in Semester-IV.





Rajarambapu Institute of Technology, Sakharale (An Autonomous Institute, affiliated to Shivaji University, Kolhapur) Curriculum Structure and Evaluation Scheme with effective from 2020-21 [2020-24 & 2021-25 Batch] Department of Computer Science & Engineering

Class: T. Y. B. Tech Semester: V

			Teac	hing eme	5		Ev	aluati	on Schen	1e	
Course								Theor Mark			ctical arks)
Code	Course	L	Т	P	Credits	Scheme	Max	10000000	in for ing (%)	Max	Min for Passin g (%)
		3				ISE	20			-	-
CS3013	Database Management	3	_	_	3	UT-1	15	40	40		-:
CS3013	Systems)	-	-)	UT-2	15		10	-	-
						ESE	50	40		-	-
						ISE	20			-	-
002022	0 4 0 0	3			3	UT-1	15	40	40	_	-
CS3033	System Software)	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20				
002052	Design & Analysis	١	-	-	3	UT-1	15	40	40	-	-
CS3053	of Algorithms	3				UT-2	15			-	-
		22				ESE	50	40		-	-
						ISE	20			-	-
						UT-1	15	40		_	_
	Program Elective-I	3	-	-	3	UT-2	15	40	40	-	-
						ESE	50	40		-,	-
650100	74774 D ' T 1			1	4	ISE				50	50
CS3133	JAVA Programming Lab	2	-	4	4	ESE	-		-	50	50
000150	Database Management			2	1	ISE				50	50
CS3153	Systems Lab	-	-	2	1	ESE	-		_	50	50
CS3173	Technical Aptitude-III	-	-	2	1	ESE	-		-	100	50
						ISE	20				-
GYYAGAA		2*		2000	,	UT-1	15	40	40	-	-
SH3033	Scholastic Aptitude-I	2**	-	-	2	UT-2	15		40	-	-
						ESE	50	40		-	-
SH3011	Indian Constitution	2		Audi	t	ISE	100	50	(P/N)	1	-
CS3193	Summer Internship (4 Weeks)	-	-	-	2	ISE			100	50	
	Total	18	-	8	22						

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week

Total Credits

: 26 : 22

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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering Technical Aptitude Courses: CS3013, CS3033, CS3053

Note*: One extra lecture to be allotted to Scholastic Aptitude-I in time Table.

Program Elective-I

Sr. No.	Course Code	Domain	Course
1	CS3073	Database and Algorithms	Data Mining
2	CS3093	Systems and Intelligence	Soft Computing
3	CS3113	Advanced IT Technologies	Information Security





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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering

Class: T. Y. B. Tech

Semester: VI

			eachi				E	valuatio	n Sch	eme	
Course Code	Course				Credits			Theory Marks)		Practical (Marks)	
Code		L	T	P	Ď	Scheme	Max Pass		Min for Passing (%)		Min for Passing (%)
						ISE	20			-	-
	Dunguan Floative II	3			3	UT-1	15	40	40		-
	Program Elective-II)	-	-	3	UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20			-	-
	Onen Elective IV	3	_		3	UT-1	15	40	40	-	_
	Open Elective-IV)	-	-	3	UT-2	15		40	-	-
					ESE	50	40		-	-	
						ISE	20			-	-
CS3063	C-G	3	_	- 7	3	UT-1	15	40	40	-	-
CS3003	CS3063 Software Engineering	J	-			UT-2	15			-	-
						ESE	50			-	-
						ISE	20			-	-
SH3021	Dialogy for Engineers	3	_	_	3	UT-1	15	40	40	-	-
SH3021	Biology for Engineers	3	-58	-)	UT-2	15		40	-	-
						ESE	50	40		-	-
SH304	Psychology for Engineers	1*	_		1	ISE	50	40	40		-
311304	rsychology for Eligineers	1.	-	-	1	ESE	50	40	40	-	-
CS3083	Capstone Project phase-I	-	-	2	2	ISE	-	-		100	50
CS3103	.NET Programming Lab	2	_	2	3	ISE	-	•		50	50
C33103	.NET Hogramming Lab	2			3	ESE	-	_		50	50
220						ISE	20			-	-
SH3043	Scholastic Aptitude-II	2*	0.00	_	2	UT1	15	40	40	-	-
5113043	Siloustic Aplitude-II	2*		_		UT2	15		40	-	_
						ESE	50	40		-	-
CS3123	Technical Aptitude-IV	-	-	2	1	ESE	-	-		100	50
CS3143	Mobile Application	2	_	2	3	ISE	-	-		50	50
CS3143	Development Lab	2	-		3	ESE	/-	-		50	50
	Total	19	-	8	24						VIENE P

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week

: 27

Total Credits

: 24

Technical Aptitude Courses

: CS3013, CS3033, CS3053, CS3063

Note*: One extra lecture to be allotted to Scholastic Aptitude-Illand Psychology for Engineers in time Table.

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Rajarambapu Institute of Technology, Sakharale

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Curriculum Structure and Evaluation Scheme

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Department of Computer Science & Engineering

Program Elective-II

Sr. No.	Course Code	Domain	Course		
1	CS3003	Database and Algorithms	Advanced Algorithms		
2	CS3023	Systems and Intelligence	Optimization Techniques		
3	CS3043	Advanced IT Technologies	Linux Operating System		

Open Elective-IV

Sr. No.	Branch	Course Code	Open Elective-IV Courses
1	Automobile	OE3023	Reliability Engineering
2	Automobile	OE3043	Renewable Energy Sources
3	Civil	OE3063	Environmental Impact Assessment
4	Civil	OE3083	Material Management
5	Computer	OE3103	Network Administration
6	Computer	OE3123	Information Technology Foundation Program
7	E&TC	OE3143	Mechatronics
8	Electrical	OE3163	Engineering Materials
9	Electrical	OE3181	Industrial Drives
10	CS&IT	OE336	Neural Network and Deep Learning
11	CS&IT	OE3221	Cyber Forensics
12	MBA	OE3243	Marketing for Engineers
13	Mechanical	OE3263	Aircraft Systems
14	Mechanical	OE3283	Supply Chain Management
15	Mechanical	OE3301	New Product Design and Development
16	Mechanical	OE3323	Entrepreneurship Development
17	Mechanical	OE3341	Research Methodology





Rajarambapu Institute of Technology, Sakharale

(An Autonomous Institute, affiliated to Shivaji University, Kolhapur) Curriculum Structure and Evaluation Scheme with effective from 2020-21 [2020-24 & 2021-25 Batch] Department of Computer Science & Engineering

Class: Final Year B. Tech Semester: VII

			Teaching scheme				J	Evaluat	ion Sche	me	
Course Code	Course				lits			Theor (Mark		1 22.00	actical Iarks)
		L	Т	P	Credits	Scheme	Max	2010200000	n for ng (%)	Max	Min for Passing (%)
						ISE	20			-	_
CS4013	Machine Learning	3	_	_	3	UT-1	15	40	40	-	-
C54015	Wacinite Learning	3	_	_		UT-2	15		40		-
						ESE	50	40		-	-
						ISE	20			-	-
	Program Elective-III	3	-	_	3	UT-1	15	40	40		-
	Trogram Breenve III			1000		UT-2	15		1 40	-	-
			_			ESE	50	40		_	-
						ISE	20			-	-
	Program Elective-IV	3	3	3	UT-1	15	40	40	-	-	
	1 Togram Elective-1 v			_		UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20				
	Program Elective-V	3	_	_	3	UT-1	15	40	40	-	-
	1 Togram Licetive-v)	-	_	3	UT-2	15		40	-	-
						ESE	50	40		-	-
						ISE	20			-	-
CS4213	Cloud Computing	3	_	_	3	UT-1	15	40	40	-	-
051215	oroug companing	,				UT-2	15		70	-	-
						ESE	50	40		-	-
CS4233	Machine Learning	_	_	2	1	ISE	-		-	50	50
CB+233	Lab				1	ESE	-		_	50	50
	Program Elective-IV	_	_	2	1	ISE	-		_	50	50
	Lab				1	ESE	-		-	50	50
CS4313	Capstone Project Phase-II	_	-	4	4	ISE	-		-	100	50
						ESE	-	-	-	100	50
CS4333	Web Technology Lab	2	-	2	3	ISE ESE	-		-	50	50
1	Total	17	-	10	24	ESE			-	50	50

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week

Total Credits

: 27 : 24





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Curriculum Structure and Evaluation Scheme

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Department of Computer Science & Engineering

Program Elective-III

Sr. No.	Course Code	Domain	Course				
1	CS4033	Database and Algorithms	Big Data Analytics				
2	CS4053	Systems and Intelligence	Natural Language Processing				
3	CS4073	Advanced IT Technologies	Blockchain Technology				

Program Elective-IV

Sr. No.	Course Code	Domain	Course
1	CS4093	Database and Algorithms	Parallel Programming
2	CS4113	Systems and Intelligence	Artificial Intelligence
3	CS4133	Advanced IT Technologies	Internet of Things

Program Elective-IV Lab

Sr. No.	Course Code	Domain	Course				
1	CS4253	Database and Algorithms	Parallel Programming Lab				
2	CS4273	Systems and Intelligence	Artificial Intelligence Lab				
3	CS4293	Advanced IT Technologies	Internet of Things Lab				

Program Elective-V

Sr. No.	Course Code	Domain	Course				
11	CS4153	Database and Algorithms	Advanced Database System				
2	CS4173	Systems and Intelligence	Computer Vision				
3	CS4193	Advanced IT Technologies	Wireless Networks				





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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering

Track I: Industry Internship & Projects (IIP)

Class: Final Year B. Tech

Semester: VIII

Course Code			Teaching Scheme				Evaluation Scheme					
	Course	L	Т	P	Credits	me	Theory (Marks)			Practical (Marks)		
Code						Scheme	Max	Min for Passing (%)		Max	Min for Passing (%)	
OE4381	Finance for Engineers	2	-	-	2	ISE	25	40	40	-	-	
	(Online Course)	<u> </u>				ESE	75	40		-	-	
OE4361	Engineering Management & Economics (Online Course)	2	-	-	2	ISE	25	40	40	-	-	
						ESE	75	40		-	-	
ID4022	T. /	_			8	ISE	-		-	50	50	
IP4023	Internship & Project		_	-	0	ESE	-		-	50	50	
	TOTAL	4	-	-	12							

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week

: 04

Total Credits

: 12

Note:

- 1] Weekly Contact hours are not mentioned for IP4023 as student is expected to be in industry regularly for 20 weeks. However, student needs to report to Institute mentors as and when required.
- 2] For online course, lecture videos of each unit will be made available through college platform to the students. For each unit there will be separate assignment. Students need to submit all assignments within specified time.

Weightage: 25% weightage for unit wise assignments + 75% weightage for final exam. Final exam will be held at college campus.





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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering

Track II: Undergraduate Research Experience (URE)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
					its	me	Theory (Marks)			Practical (Marks)	
Cout		L	Т	P	Credits	Scheme	Max	Min for Passing (%)		Max	Min for Passing (%)
OE4381	Finance for Engineers (Online Course)	2	-	-	2	ISE	25	40	40	-	-
OE4361	Engineering Management & Economics	2	-	-	2	ISE	75 25	40	40	_	-
	(Online Course)					ESE	75	40		-	-
RE4043	Research Project	-	-	8	8	ISE ESE	-		-	50 50	50
	TOTAL	4	m	8	12					100	

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 12 Total Credits : 12

Note:

1] For online course, lecture videos of each unit will be made available through college platform to the students. For each unit there will be separate assignment. Students need to submit all assignments within specified time.

Weightage: 25% weightage for unit wise assignments + 75% weightage for final exam. Final exam will be held at college campus.





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Curriculum Structure and Evaluation Scheme
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Department of Computer Science & Engineering

Track III: Entrepreneurship Development (ED)

Class: Final Year B. Tech

Semester: VIII

Course Code			Teaching Scheme			Evaluation Scheme						
	Course				Credits	me	Theory (Marks)			Practical (Marks)		
		L	Т	P	0	Scł	Max	Min for Passing (%)		Max	Min for Passing (%)	
			-			ISE	20			-		
ED4103	Project Management	2*		-	2	UT-1	15	40	40		_	
		-				UT-2	15				_	
						ESE	50					
	Commercial Aspects of the Project		-	-		ISE	20	40	40	-		
ED4043		2*			2	UT-1	15				- 1	
					_	UT-2	15		40			
						ESE	50	40				
ED4063	Entrepreneurship Development Program (EDP)	-	-	-	1	ISE	-	-	-	100	50	
ED4083	Entrepreneurship Development Project			7		ISE				50		
		-	-	7	7	ESE	-	-	-	50	50	
	Total			7	12							

 $ISE = In \ Semester \ Evaluation, \ UT-I = Unit \ Test-II, \ UT-II = Unit \ Test-II, \ ESE = End \ Semester \ Examination$

Total Contact Hours/week : 11

Total Credits

: 12

Note:

1] * One extra lecture to be allotted to Project Management and Commercial Aspects of the Project course in time table.

