



K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning) with Multidisciplinary Minor





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Class: S. Y. B. Tech

Semester: III

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max	Min. for passing	Max.	Min. for passing	
AI201	Discrete Mathematics	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15			----	----
						ESE	50			40	----
AI203	Data structure & Algorithms	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15			----	----
						ESE	50			40	----
AI205	Computer Organization and Architecture	2	-	-	2	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15			----	----
						ESE	50			40	----
AI207	Principles of Artificial Intelligence	2	-	-	2	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15			----	----
						ESE	50			40	----
	Multidisciplinary Minor-I	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15			----	----
						ESE	50			40	----
SH2174	Environmental Science	1	-	2	2	ISE	50	40	40	----	----
						ESE	50			40	----
AI209	Object Oriented Programming using JAVA	2	-	2	3	ISE	----	----	50	50	
						ESE	----	----	50	50	
AI211	Data structure & Algorithms Lab	-	-	2	1	ISE	----	----	50	50	
						ESE	----	----	50	50	
AI213	Desktop Publishing	-	-	2	1	ISE	----	----	100	50	
AI215	Technical Aptitude-I	-	-	2	1	ESE	-	----	100	50	
	Professional Skills Development and Foreign Languages-I	-	-	2	1	ISE	-	----	100	50	
	TOTAL	16	-	12	22						
	TOTAL CONTACT HOURS		28								

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

Total Contact Hours/week : 28

Total Credits : 22

Technical Aptitude Courses: Discrete Mathematics, Computer Organization and Architecture, Data structure & Algorithms, Principles of Artificial Intelligence and Object-Oriented Programming





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme
To be implemented for 2022-26 Batch
Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Sr. No.	Subject Name	Course Code	
1.	Professional Skills	Professional Leadership Skills	SH2634
2.	Development and Foreign Languages	Interpersonal Skills	SH2614
3.		Innovation Tools and Methods for Entrepreneurs	SH2694
4.		Personal Effectiveness and Body Language	SH2594
5.		German Language – Level III	SH2734
6.		Japanese Language – Level III	SH2714

Note:

1. A student has to complete any two courses out of six choices offered under Choice Based Professional Skills Development Programme. A course in each semester will be allocated without any repetition.
2. Foreign Language course selected in F. Y. B. Tech Sem-I will remain the same with next levels in Sem-III & IV. (No new entries in S. Y. B. Tech Sem-III)



Class: S. Y. B. Tech

Semester: IV

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)			Practical (Marks %)	
							Max	Min. for passing		Max.	Min. for passing
AI202	Statistics and Fuzzy systems	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	---	---		
						ESE	50	40	---	---	
AI204	Machine Learning	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	---	---		
						ESE	50	40	---	---	
AI206	Computer Networks	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	---	---		
						ESE	50	40	---	---	
AI208	Database Management Systems	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	---	---		
						ESE	50	40	---	---	
	Multidisciplinary Minor-II	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	---	---		
						ESE	50	40	---	---	
	Modern Indian Language	2	-	-	2	ISE	100	50	---	---	---
AI210	Machine Learning Lab	-	-	4	2	ISE	---	---	---	50	50
						ESE	---	---	---	50	50
AI212	Database Management Systems Lab	-	-	2	1	ISE	---	---	---	50	50
						ESE	---	---	---	50	50
AI214	Computer Hardware and Networking	-	-	2	1	ISE	---	---	---	100	50
AI216	Technical Aptitude-II	-	-	2	1	ESE	-	-	-	100	50
	Professional Skills Development and Foreign Languages-II	-	-	2	1	ISE	-	-	-	100	50
	TOTAL	17	-	12	23						
	TOTAL CONTACT HOURS		29								

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

Total Contact Hours/week : 29

Total Credits : 23

Technical Aptitude Courses : Statistics and Fuzzy systems, Computer Networks, Machine learning and Database Management Systems

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





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Sr. No.	Subject Name		Course Code
1.	Professional Skills	Professional Leadership Skills	SH2634
2.	Development and Foreign Languages	Interpersonal Skills	SH2614
3.		Innovation Tools and Methods for Entrepreneurs	SH2694
4.		Personal Effectiveness and Body Language	SH2594
5.		German Language – Level IV	SH2644
6.		Japanese Language – Level IV	SH2624

Sr. No.	Subject Name		Course Code
1	Modern Indian Language	मराठी भाषिक कौशल्यविकास	SH202
2		हिंदी कथा साहित्य एवं प्रयोजमूलक हिंदी	SH204





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Class: T. Y. B. Tech

Semester: V

Course Code	Course	Teaching Scheme				Evaluation Scheme						
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)			
							Max	Min. for passing	Max.	Min. passing	for	
AI301	Deep Learning	3	-	-	3	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
AI303	Software Engineering	2	-	-	2	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
	Program Elective -I	3	-	-	3	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
	Open Elective-I	3	-	-	3	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
	Multidisciplinary Minor-III	3	-	-	3	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
	Multidisciplinary Minor-IV	2	-	-	2	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
SH3034	Scholastic Aptitude – I	2*	-	-	2	ISE	20	40	40	---	---	
						UT1	15			---	---	
						UT2	15			---	---	
						ESE	50			40	---	---
						UT1	15			---	---	
						UT2	15			---	---	
AI313	Deep Learning Lab	-	-	2	1	ISE	---	---	---	100	50	
AI315	Big Data Analytics Lab	1	-	2	2	ISE	---	---	---	50	50	
						ESE	---	---	---	50	50	
AI317	Technical Aptitude – III	-	-	2	1	ESE	-	-	-	100	50	
AI319	Summer Internship	-	-	-	2	ISE	---	---	---	100	50	
TOTAL		19+1*	-	6	24							
TOTAL CONTACT HOURS		25+1*=26										

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

Total Contact Hours/week : 26

Total Credits : 24

Technical Aptitude Courses : Deep Learning, Software Engineering, Big Data Analytics

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





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Program Elective-I

Sr. No.	Course Code	Domain	Course
1	AI305	Internet of Things	Sensor Actuated Technology
2	AI307	Computer Vision	Computer Graphics and Vision
3	AI309	Networking	Ad-hoc Network
4	AI311	Natural Language Processing	Text and Speech Analysis

Open Elective – I

Sr. No	Course Code	Course Name	Offered By Department
1	OE345	Soft Computing	Computer Science & Information Technology
2	OE343	Data Science	Computer Science & Engineering (Artificial Intelligence and Machine Learning)
3	OE347	New Product Design & Development	Mechanical Engineering
4	OE349	Non-Conventional Energy Sources	Mechanical Engineering
5	OE351	Hydrogen & Fuel Cell Technology	Mechanical Engineering
6	OE3044	Renewable Energy Sources	Automobile Engineering
7	OE353	Factory Automation	Mechatronics Engineering
8	OE355	Cyber Physical Systems	Mechatronics Engineering
9	OE3104	Network Administration	Computer Science & Engineering
10	OE3064	Environmental Impact Assessment	Civil Engineering
11	OE3084	Materials Management	Civil Engineering
12	OE341	Energy Auditing and Management	Electrical Engineering
13	OE357	Internet of Things	Electronics & Telecommunication Engineering
14	OE359	Drone Technology	Electronics & Telecommunication Engineering





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Class: T. Y. B. Tech

Semester: VI

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max	Min. for passing	Max.	Min. for passing	
AI302	Optimization Techniques for AI	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
AI304	Automata Theory	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
AI306	Research Methodology	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Program Elective-II	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Open Elective - II	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Multidisciplinary Minor-V	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
SH3064	Scholastic Aptitude – II	2*	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
AI316	Web Technology Lab	-	-	4	2	ISE	---	---	---	50	50
						ESE	---	---	---	50	50
AI318	Mobile Application Development Lab	-	-	2	1	ISE	---	---	---	100	50
AI320	Technical Aptitude – IV	-	-	2	1	ESE	---	---	---	100	50
AI322	Capstone project Phase – I	-	-	2	1	ISE	---	---	---	100	50
	TOTAL	19+1*	-	10	24						
	TOTAL CONTACT HOURS	29+1*=30									

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

Total Contact Hours/week : 30

Total Credits : 24

Technical Aptitude Courses : Optimization Techniques for AI, Automata Theory, Web Technology, Mobile Application Development

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





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Program Elective-II

Sr. No.	Course Code	Domain	Course
1	AI308	Internet of Things	Smart Cities
2	AI310	Computer Vision	Augmented & Virtual Reality
3	AI312	Networking	Wireless & Mobile Nets
4	AI314	Natural Language Processing	Sentiment Analysis

Open Elective -II

Sr. No.	Course Code	Course Name	Offered By Department
1	OE3401	Cyber security	Computer Science & Information Technology
2	OE342	Data Mining	Computer Science & Engineering (Artificial Intelligence and Machine Learning)
3	OE3024	Reliability Engineering	Automobile Engineering
4	OE344	Supply Chain Analytics	Mechatronics Engineering
5	OE346	Mobile Robotics	Mechatronics Engineering
6	OE348	Information Technology Foundation Program	Computer Science & Engineering
7	OE3381	Disaster Management	Civil Engineering
8	OE350	Operations Research	Civil Engineering
9	OE3182	Industrial Drives	Electrical Engineering
10	OE352	Image Processing	Electronics & Telecommunication Engineering
11	OE354	Fuzzy logic and Neural Network	Electronics & Telecommunication Engineering
12	OE3284	Supply Chain Management	Mechanical Engineering
13	OE3324	Entrepreneurship Development	Mechanical Engineering
14	OE356	Project Management	Mechanical Engineering





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Class: Final Year B. Tech

Semester: VII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max	Min. for passing	Max.	Min. for passing	
AI401	Social and Ethical issues in AI	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			---	---
AI403	Cryptography and Network Security	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			---	---
AI405	Cloud Computing	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			---	---
	Program Elective-III	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			---	---
	Program Elective-IV	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			---	---
	Program Elective Lab -I	-	-	2	1	ISE	---	---	---	50	50
						ESE	---			50	50
AI423	Cloud Computing Lab	-	-	2	1	ISE	---	---	---	50	50
						ESE	---			50	50
AI425	Block chain Technologies Lab	-	-	2	1	ISE	---	---	---	50	50
						ESE	---			50	50
AI435	Capstone Project Phase II	-	-	6	3	ISE	---	---	---	50	50
						ESE	---			50	50
TOTAL		14	-	12	20						
TOTAL CONTACT HOURS		26									

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

Total Contact Hours/week : 26

Total Credits : 20





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Program Elective-III

Sr. No.	Course Code	Domain	Course
1	AI407	Internet of Things	Intelligent Transportation System
2	AI409	Computer Vision	Pattern Recognition
3	AI411	Networking	Next-Generation IP Networks
4	AI413	Natural Language Processing	Chatbot

Program Elective-IV

Sr. No.	Course Code	Domain	Course
1	AI415	Internet of Things	Robotics
2	AI417	Computer Vision	Game designing
3	AI419	Networking	Wireless Sensor Network
4	AI421	Natural Language Processing	Natural language processing

Program Elective Lab- I

Sr. No.	Course Code	Domain	Course
1	AI427	Internet of Things	Robotics Lab
2	AI429	Computer Vision	Game designing Lab
3	AI431	Networking	Wireless Sensor Network Lab
3	AI433	Natural Language Processing	Natural language processing Lab





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Choice based Internship Model
Model I: Industry Internship (II)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max.	Min. for passing	Max.	Min. for passing	
OE4382	Finance for Engineers (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
OE4362	Engineering Management & Economics (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
IP4024	Industry Internship & Project	-	-	-	12	ISE	---	---		50	50
						ESE	---	---		50	50
TOTAL		4	-	-	16						

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

Total Contact Hours/week : 4
Total Credits : 16

Note:

- 1] Weekly Contact hours are not mentioned 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.





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Model II: Research Internship (RI)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max.	Min. for passing	Max.	Min. for passing	
OE4382	Finance for Engineers (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
OE4362	Engineering Management & Economics (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
RE4044	Research Internship	-	-	-	12	ISE	---	---		50	50
						ESE	---	---		50	50
TOTAL		4	-	-	16						

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

Total Contact Hours/week : 4
Total Credits : 16

Note:

- 1] Weekly Contact hours are not mentioned as student is expected to be in outside research organization 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.
- 3] Students who opt for a research internship need to undergo a minimum of one month of research internship in outside research organizations or laboratories.

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





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch
 Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Model III: Entrepreneurial Internship (EI)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme			Credits	Evaluation Scheme					
		L	T	P		Schem	Theory (Marks %)			Practical (Marks %)	
							Max	Min. for passing		Max	Min. for passing
ED4104	Project Management (Online Course)	2	-	-	2	ISE	25	40	40	-	-
						ESE	75	40		-	-
ED4044	Commercial Aspects of the Project (Online Course)	2	-	-	2	ISE	25	40	40	-	-
						ESE	75	40		-	-
ED4064	Entrepreneurship Development Program (EDP)	-	-	-	1	ISE				100	50
ED4084	Entrepreneurial Internship	-	-	-	11	ISE				50	50
						ESE				50	
		4	-	-	16						

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

Total Contact Hours/week : 4
Total Credits : 16

Note:

1] Weekly Contact hours are not mentioned as student is expected to be in outside research organization 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.

3] A one week Entrepreneurship Development Program (EDP) will be conducted after completion of 7th semester and before start of 8th semester.

4] Students who opt for an entrepreneurial internship need to undergo a one-month internship at an outside reputed organization or firm





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Multidisciplinary Minor

- Student should choose any one specialization given by the department and complete all the five courses under the specialization to earn 170 Credits.
- Following are the baskets of multidisciplinary minor courses

Multidisciplinary Minor Baskets					
MDM Basket Name	Sr. No.	Course Code	Course Name	Semester	Offered by Department
Automobile Engineering	1	ATMD201	Automobile Systems	III	Automotive Technology
	2	ATMD202	I. C. Engines	IV	
	3	ATMD301	Automotive Safety & Ergonomics	V	
	4	ATMD303	Automotive Engineering Lab.	V	
	5	ATMD302	Electric Vehicles	VI	
Construction Engineering	1	CEMD201	Building Construction and Planning	III	Civil Engineering
	2	CEMD202	Building Estimation and Valuation	IV	
	3	CEMD301	Infrastructure Engineering	V	
	4	CEMD303	Smart Cities and Sustainable Development	V	
	5	CEMD302	Public Health Engineering	VI	
Software Programming	1	CSMD201	Introduction to Data Structures	III	Computer Science & Engineering
	2	CSMD202	Problem solving using JAVA	IV	
	3	CSMD301	Fundamentals of Database Systems	V	
	4	CSMD303	Object-oriented Programming in Python	V	
	5	CSMD302	Artificial Intelligence	VI	
Electrical Power System	1	EEMD201	Electrical Power Generation	III	Electrical Engineering
	2	EEMD202	Power System	IV	
	3	EEMD301	Electrical Machines	V	
	4	EEMD303	Electrical Technology Lab	V	
	5	EEMD302	Smart Grid	VI	





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
 Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Multidisciplinary Minor Baskets					
MDM Basket Name	Sr. No.	Course Code	Course Name	Semester	Offered by Department
Electronics System Design	1	ECMD201	Electronics Devices and Applications	III	Electronics & Telecommunication Engineering
	2	ECMD202	Electronics Communication Systems	IV	
	3	ECMD301	System Analysis using MATLAB	V	
	4	ECMD303	PCB Design and Fabrication	V	
	5	ECMD302	Electronics for Industrial Applications	VI	
Software Development	1	CIMD201	Data Structures	III	Computer Science & Information Technology
	2	CIMD202	Computer Algorithms	IV	
	3	CIMD301	Introduction to DBMS	V	
	4	CIMD303	OOP using Java	V	
	5	CIMD302	Software Engineering	VI	
Elements of Mechanical Engineering	1	MEMD201	Materials and Applications	III	Mechanical Engineering
	2	MEMD202	Design and Drawing of Machine Components	IV	
	3	MEMD301	Manufacturing and Assembly Process	V	
	4	MEMD303	Refrigeration and Air Conditioning	V	
	5	MEMD302	Power Plant Engineering	VI	
Mechatronics Engineering	1	MCMD201	Fundamentals of Mechatronics	III	Mechatronics Engineering
	2	MCMD202	Industrial Fluid Power	IV	
	3	MCMD301	Sensor and Instrumentation	V	
	4	MCMD303	Industrial Automation	V	
	5	MCMD302	Industrial Robotics	VI	
Artificial Intelligence	1	AIMD201	Object Oriented Programming	III	Computer Science & Engineering (AI-ML)
	2	AIMD202	Data Structures and Algorithms	IV	
	3	AIMD301	Machine Learning	V	
	4	AIMD303	Business Intelligence	V	
	5	AIMD302	Principles of AI	VI	





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning) with Double Minor (Multidisciplinary and Specialization Minor)





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme
To be implemented for 2022-26 Batch
Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning)

- To get B.Tech. in Computer Science & Engineering (Artificial Intelligence and Machine Learning) with Double Minor degree student need to earn extra 18 credits by completing 6 minor courses (One minor course / semester)
- Minor courses can be completed through online platforms
- Student can choose any one specialization given by the department and complete all the six courses under the specialization to earn total 188 Credits which consist 170 credits of regular Multidisciplinary Minor courses and 18 Credits of Double Minor courses.
- Following are the baskets of Minor courses

Double Minor Baskets					
Double Minor Basket Name	Sr. No.	Course Code	Course Name	Semester	Offered by Department
Electric Vehicle	1	ATDM201	Powertrain for EV	III	Automotive Technology
	2	ATDM202	Battery Management Systems for Electric Vehicles	IV	
	3	ATDM301	Hybrid Vehicles	V	
	4	ATDM302	Fuel Cell Technology	VI	
	5	ATDM401	Charging Infrastructure	VII	
	6	ATDM402	Autonomous Vehicle	VIII	
Water Resource Management	1	CEDM201	Water Economics and Governance	III	Civil Engineering
	2	CEDM202	Availability and Management of Groundwater Resources	IV	
	3	CEDM301	Pollutants and Water Supply	V	
	4	CEDM302	Integrated Waste Management For A Smart City	VI	
	5	CEDM401	Advanced Geomatics Engineering	VII	
	6	CEDM402	Optimization Methods for Civil Engineering	VIII	





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Data Science	1	CSDM201	Principles of Data Science	III	Computer Science & Engineering
	2	CSDM202	Data Wrangling with Python	IV	
	3	CSDM301	Data management and representation	V	
	4	CSDM302	Exploratory Data Analysis	VI	
	5	CSDM401	Business Analytics	VII	
	6	CSDM402	NPTEL/SWAYAM	VIII	
Electric Vehicle and Renewable Energy Systems	1	EEDM201	Technologies for Clean And Renewable Energy Production	III	Electrical Engineering
	2	EEDM202	Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems	IV	
	3	EEDM301	Solar Photovoltaics Fundamentals, Technology and Applications	V	
	4	EEDM302	Introduction to Hybrid and Electric Vehicles	VI	
	5	EEDM401	Fundamentals of Electric vehicles: Technology and Economics	VII	
	6	EEDM402	Electric vehicles and Renewable energy	VIII	
Internet of Things	1	ECDM201	Sensors and Actuators	III	Electronics & Telecommunication
	2	ECDM202	Wireless Sensor Networks	IV	
	3	ECDM301	IoT protocols and Security	V	
	4	ECDM302	Embedded System Design for IoT	VI	
	5	ECDM401	Android Application Design	VII	
	6	ECDM402	Cloud Integration using AWS	VIII	
Artificial Intelligence and Data Science	1	CIDM201	Artificial Intelligence	III	Computer Science & Information Technology
	2	CIDM202	Data Science with R programming	IV	
	3	CIDM301	Machine Learning	V	
	4	CIDM302	Business Intelligence	VI	
	5	CIDM401	Deep learning	VII	
	6	CIDM402	Data Ethics and Privacy	VIII	
AI Based Condition	1	MEDM201	Fundamentals of Structural Dynamics	III	Mechanical Engineering





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Monitoring	2	MEDM202	Principles of Vibration control	IV	
	3	MEDM301	Machinery Fault Diagnosis	V	
	4	MEDM302	Instrumentation and Data Recording	VI	
	5	MEDM304	Double Minor IV Lab	VI	
	6	MEDM401	AI Tools and Signal Processing	VII	
	7	MEDM402	AI Based Condition Monitoring	VIII	
	Autotronics	1	MCDM201	Fundamentals of Automotive Systems	
2		MCDM202	Automotive Electrical and Electronics	IV	
3		MCDM301	Automotive Communication System	V	
4		MCDM302	Automotive Driver Assistant System	VI	
5		MCDM401	Engine Control System	VII	
6		MCDM402	Automotive Diagnostics	VIII	
Artificial Internet of Things - AIOT	1	AIDM201	Introduction to Internet of Things	III	Computer Science & Engineering (Artificial Intelligence and Machine Learning)
	2	AIDM202	IoT Protocols	IV	
	3	AIDM301	IoT System Design	V	
	4	AIDM302	Industry 4.0 and IIoT	VI	
	5	AIDM401	Internet of Things Technology and Applications	VII	
	6	AIDM402	NPTEL/SWAYAM	VIII	

Note: NPTEL/SWAYAM: Approved courses and platforms will be enlisted timely by DPC along with rules and regulations





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme
To be implemented for 2022-26 Batch
Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning) with Honor and Multidisciplinary Minor





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme
To be implemented for 2022-26 Batch
Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Note:

- To get B.Tech. in Computer Science & Engineering (Artificial Intelligence and Machine Learning) with Honor and Multidisciplinary Minor degree student need to earn extra 18 credits by completing 6 Honor courses (One course / semester)
- Honor course can be completed through online platforms
- Student can choose any one specialization given by the department and complete all the six courses under the specialization to earn total 188 Credits which consist 170 credits of regular Multidisciplinary Minor courses and 18 Credits of Honor courses.
- Following are the baskets of Honor courses

Specialization: Honor Subject Specialization (Cloud Computing)			
Sr. No.	Course Code	Course Name	Offered in Semester
1	AIHO201	Cluster and Grid Computing	III
2	AIHO202	Cloud Computing Applications	IV
3	AIHO301	Cloud Virtualization	V
4	AIHO302	DevOps	VI
5	AIHO401	Cloud Security	VII
6	AIHO402	NPTEL/SWAYAM/Certification	VIII

Note: NPTEL/SWAYAM/Certification: Approved courses and platforms will be enlisted timely by DPC along with rules and regulations





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)

Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning) -Honors with Research and Multidisciplinary Minor





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Honors with Research and Multidisciplinary Minor

The student will work on Research Project or Dissertation for 18 Credits in the Fourth Year in respective discipline. The distribution of 18 Credits for Research project in Sem-VII and Sem-VIII is given below. To get B.Tech in Computer Science & Engineering (Artificial Intelligence and Machine Learning)-Honors with Research and Multidisciplinary Minor degree Student need to earn total 206 Credits which consist 170 credits of regular Multidisciplinary Minor courses, 18 Credits of Honor courses and 18 credits of Research courses.

Class: Final Year B. Tech

Semester: VII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max.	Min. for passing	Max.	Min. for passing	
REH401	Intellectual Property Rights	-	-	-	2	ISE	50	40	40	---	---
						ESE	50	40		---	---
REH403	Research project (Synopsis) phase - I	-	-	-	2	ISE	--	--	--	50	50
						ESE	--	--		50	50
REH405	Research Specific core course - I (Online NPTEL course)	-	-	-	3	ISE	50	40	40	--	--
						ESE	50	40		--	--
TOTAL		-	-	-	7						

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

Note: For Evaluation of Online NPTEL course ISE Marks will be marks obtained by students in the assignments given by NPTEL, students who will secure NPTEL certification will be only eligible for ESE of the same course which will be conducted at institute





K.E. Society's
Rajarambapu Institute of Technology, Rajaramnagar
(An Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme

To be implemented for 2022-26 Batch

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max.	Min. for passing	Max.	Min.	for passing
REH402	Research project phase - II	-	-	-	11	ISE	--	--	--	50	50
						ESE	--	--	50		
	TOTAL	-	-	-	11						

ISE: In Semester Evaluation, UT-I: Unit Test-I, UT-II: Unit Test-II, ESE: End Semester Exam

