



# RAGHU INSTITUTE OF TECHNOLOGY

## AUTONOMOUS

(Approved by AICTE, New Delhi & Permanently Affiliated to JNTUK, Kakinada)  
 Accredited by NBA (ECE, EEE, MECH, CSE) & NAAC with 'A' Grade, Listed u/s 2(f) & 12(B) of UGC Act 1956.  
 Dakamarri, Bheemunipatnam Mandal, Visakhapatnam Dist. – 531 162 (A.P.)  
 Ph: +91-8922-248003, 248013  
 e-mail: principal@raghuinstech.com website: www.raghuinstech.com

### Department of Computer Science and Engineering

#### B.Tech

#### (Computer Science and Engineering(Artificial Intelligence & Machine Learning))

#### First Year – First Semester

#### AR20 Regulations

Sl. No	Sub.Code	Category	Name of Subject	Periods		Maximum Marks		Total	Credits
				T	L	Internal	External		
1	20MA1001	BS	Calculus	3	--	30	70	100	3
2	20CH1001	BS	Applied chemistry	3	--	30	70	100	3
3	20HS1001	HS	English for Communication	3	--	30	70	100	3
4	20ES1004	ES	Programming for Problem Solving using C	3	--	30	70	100	3
5	20ES1005	ES	Computer engineering workshop	2	2	30	70	100	3
6	20HS1101	HSLAB	English language communication skills lab	--	3	15	35	50	1.5
7	20CH1101	BSLAB	Engineering/Applied chemistry lab	--	3	15	35	50	1.5
8	20ES1104	ESLAB	Programming for Problem Solving using C Lab	--	3	15	35	50	1.5
SPORTS/NSS/NCC/Social Services									
								Total Credits	19.5

#### First Year – Second Semester-B.Tech(CSE(AI&ML))

Sl. No	Sub.Code	Category	Name of Subject	Periods		Maximum Marks		Total	Credits
				T	L	Internal	External		
1	20MA2001	BS	Linear algebra and Vector Calculus	3	--	30	70	100	3
2	20PH1002	BS	Applied physics	3	--	30	70	100	3
3	20CS2001	CS	Data structures	3	--	30	70	100	3
4	20CS2002	CS	Python programming	3	--	30	70	100	3
5	20ES2006	ES	Digital logic design	3	--	30	70	100	3
6	20CS2101	CSLAB	Data Structures through C Lab	--	3	15	35	50	1.5
7	20PH1101	BSLAB	Engineering/Applied physics lab	--	3	15	35	50	1.5
8	20CS2102	CSLAB	Python programming lab	--	3	15	35	50	1.5
9	20MC2502	MC	Universal human values(AICTE suggested)	2	0	0	0	0	0
SPORTS/NSS/NCC/Social Services									
								Total Credits	19.5



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## Second Year – First Semester-B.Tech(CSE(AI&ML))

Sl.No	Sub.Code	Category	Name of Subject	Periods		Maximum Marks		Total	Credits
				T	L	Internal	External		
1	20ES3019	ES	Discrete Mathematical Structures	3	--	30	70	100	3
2	20MA2003	BS	Numerical Techniques And Vector Spaces	3	--	30	70	100	3
3	20ES3005	ES	Object Oriented Programming through Java	3	--	30	70	100	3
4	20CS3003	CS	Operating Systems	2	2	30	70	100	3
5	20CS3006	CS	Artificial Intelligence	3	--	30	70	100	3
6	20ES3105	ESLAB	JAVA Programming Lab	--	3	15	35	50	1.5
7	20CS3103	CSLAB	Operating Systems Lab	--	3	15	35	50	1.5
8	20CS3106	CSLAB	AI Tools and Techniques Lab	--	3	15	35	50	1.5
9	20CS3201	SC	Skill Oriented Course* Basic Web Designing	2	2	50	50	100	2
10	20MC3502	MC	Environmental Science(AICTE Suggested)	2	-	-	-	-	0
SPORTS/NSS/NCC/Social Services									
Total Credits									21.5



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## Second Year – Second Semester-B.Tech (CSE (AI&ML))

Sl.No	Sub.Code	Category	Name of Subject	Periods		Maximum Marks		Total	Credits
				T	L	Internal	External		
1	20CS4002	CS	Computer Organization and Introduction to Compiler Design	3	--	30	70	100	3
2	20MA4006	BS	Probability and Statistics	3	--	30	70	100	3
3	20CS4007	CS	Machine Learning	3	--	30	70	100	3
4	20CS4005	CS	Database Management System	3	--	30	70	100	3
5	20HS4002	HS	Managerial Economics and Financial Accountancy	3	--	30	70	100	3
6	20CS4107	CSLAB	Machine Learning Lab	--	3	15	35	50	1.5
7	20CS4105	CSLAB	DBMS Lab	--	3	15	35	50	1.5
8	20CS4102	CSLAB	CO&CD Lab	--	3	15	35	50	1.5
9	20CS4202	SC	Skill oriented Course* R programming	--	4	50	50	100	2
SPORTS/NSS/NCC/Social Services									
Total Credits									21.5



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### Third Year – First Semester-B.Tech (CSE (AI&ML))

Sl.No.	Sub.Code	Category	Name of Subject	Periods		Maximum Marks			Credits
				T	L	Internal	External	Total	
1	20CS5003	PC	Software Engineering	3	--	30	70	100	3
2	20CS5001	PC	Fundamentals of Data Science	3	--	30	70	100	3
3	20CS5007	PC	Design and Analysis of Algorithms	3	--	30	70	100	3
4	20xx54xx	OE	Open Elective-I(Inter Disciplinary)/MOOCs	2	2	30	70	100	3
5	20CS5008 20CS5301 20CS5304 20CS5305	PE	<b>Professional Elective-I/MOOCs</b> 1. Data warehousing & Data Mining 2. Internet of Things 3. Theory of Computation 4. Computer Graphics	3	--	30	70	100	3
7	20CS5107	PCLAB	Design and Analysis of Algorithms Lab	--	3	15	35	50	1.5
8	20CS5101	PCLAB	Data Science using Python Lab	--	3	15	35	50	1.5
9	20CS5204	SC	<b>Skill advanced course</b> Full Stack web development	-	4	50	50	100	2
11	20MC5503	MC	Essence of Indian Tradition(AICTE Suggested)	2	0	0	0	0	0
	20CS5801	<b>Summer Internship 2 Months (Mandatory) after second year (to be evaluated during V Semester)</b>							<b>1.5</b>
<b>Total Credits</b>									<b>21.5</b>
Honors/Minor courses (The hours distribution can be 3-0-2 or 3-1-0 also)				4	0	30	70	100	4



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### Third Year – Second Semester-B.Tech (CSE (AI&ML))

Sl.No	Sub.Code	Category	Name of Subject	Periods		Maximum Marks			Credits
				Theo ry	Lab	Internal	External	Total	
1	20AI6038	PC	Deep Learning	3	--	30	70	100	3
2	20AI6039	PC	Computer Vision	3	--	30	70	100	3
3	20CS6012	PC	Computer Networks	3	--	30	70	100	3
4	20IO6322 20CS6331 20CS6340 20AI6341	PE	<b>Professional Elective-II/MOOCs</b>  1. Mobile Computing. 2. Software Project Management 3. Cloud Computing 4. Introduction to Robotics	3	--	30	70	100	3
5	20xx64xx	OE	Open Elective-II(Inter Disciplinary)/MOOCs	3	--	30	70	100	3
6	20AI6138	PCLAB	Deep Learning using Tensor flow Lab	--	2	15	35	50	1.5
7	20AI6139	PCLAB	Computer Vision Lab	--	3	15	35	50	1.5
8	20CS6112	PCLAB	Computer Networks Lab	--	3	15	35	50	1.5
9	20HS6209	HS	Employability & corporate Readiness skills	2	2	50	50	100	2
10	20MC6504	MC	Indian Constitution(AICTE Suggested)	2	0	0	0	0	0
<b>Total Credits</b>									<b>21.5</b>
<b>Honors/Minor courses</b> (The hours distribution can be 3-0-2 or 3-1-0 also)				<b>4</b>	<b>0</b>	<b>30</b>	<b>70</b>	<b>100</b>	<b>4</b>
<b>Internship 2 Months (Mandatory) during summer vacation</b>									