



# 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

## COMPUTER SCIENCE AND ENGINEERING

First Year – First Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18EG101	English - I	3	1		40	60	100	3
18MA101	Mathematics -I	3	1		40	60	100	3
18CH103/ 18CH203	Environmental Studies	3	1		40	60	100	3
18PH101/ 18PH201	Applied Physics	3	1		40	60	100	3
18CS101 18CS201	C Programming	1	-	3	40	60	100	3
18ME102/ 18ME202	Engineering Drawing	3	1		40	60	100	3
18PH111/ 18PH211	Engineering /Applied Physics lab			3	60	40	100	2
18EG111	English Communication Skill Lab	-	-	3	60	40	100	2
18CS111/ 18CS211	C Programming lab	-	-	3	60	40	100	2
18EG121	Seminar on current affairs	-	-	1	50	50	100	1
NSS / NCC / Social services								
							<b>Total Credits</b>	<b>25</b>



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### First Year – Second Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits	
		L	T	P	Internal	External			
18EG201	English - II	3	1	-	40	60	100	3	
18MA102/ 18MA202	Mathematics – II (Mathematical Methods)	3	1	-	40	60	100	3	
18MA203	Mathematics-III	3	1	-	40	60	100	3	
18CH102/ 18CH202	Applied Chemistry	3	1	-	40	60	100	3	
18CS202	Object Oriented Programming through C++	3	1	-	40	60	100	3	
18CS203	Digital Logic Design	3	1	-	40	60	100	3	
18CH111/ 18CH211	Applied / Engineering Chemistry Lab	-	-	3	60	40	100	2	
18CS212	Object Oriented Programming through C++ lab	-	-	3	60	40	100	2	
18CS213	IT Laboratory	-	-	3	60	40	100	2	
18HS221	Seminar on Science and its impact	-	-	1	50	50	100	1	
NSS / NCC / Social Services									
							Total Credits	25	



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## Second Year – First Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits	
		L	T	P	Internal	External			
18CS301	Python Programming	3	1	-	40	60	100	3	
18CS302	Computer Organisation	3	1	-	40	60	100	3	
18CS303	Mathematical Foundations of Computer Science	3	1	-	40	60	100	3	
18HS302	Managerial Economics and Financial Analysis	3	1	-	40	60	100	3	
18CS304	Data Structures through C++	3	1	-	40	60	100	3	
18CS311	Python Programming Lab	-	-	3	60	40	100	2	
18CS312	Data Structures Lab	-	-	3	60	40	100	2	
18CS313	FOSS Lab	-	-	3	60	40	100	2	
18EG381	English for technical communications	-	-	1	60	40	100	1	
18CS321	Seminar: Technology and its impact	-	-	1	50	50	100	1	
NSS/NCC/Social Services									
<b>Total Credits</b>								<b>23</b>	



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### Second Year – Second Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18CS401	Operating Systems	3	1	-	40	60	100	3
18CS402	OOPS through Java	3	1	-	40	60	100	3
18CS403	Advanced Data Structures	3	1	-	40	60	100	3
18CS404	Database Management Systems	3	1	-	40	60	100	3
18CS405	Automata and Compiler Design	3	1	-	40	60	100	3
18CS411	OOPS through Java Lab	-	-	3	60	40	100	2
18CS412	OS and CD Lab	-	-	3	60	40	100	2
18CS413	DBMS Lab	-	-	3	60	40	100	2
18CS461	Mini Project-I	3			30	70	100	2
18EG481	English for Employability	-	-	1	60	40	100	1
18CS421	Technical Seminar-I	-	-	1	50	50	100	1
NSS/NCC/Social Services								
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### Third Year – First Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18CS501	Statistics with R Programming	3	1	-	40	60	100	3
18CS502	Design of Algorithms and Analysis	3	1	-	40	60	100	3
18CS503	Web Application Development	3	1	-	40	60	100	3
18CS504	Computer Network Engineering	3	1	-	40	60	100	3
18CS531	Introduction to Internet of Things	3	1	-	40	60	100	3
18HS501	IPR & Patents	2	-	-	-	-	-	-
18CS511	Web Application Development Lab	-	-	3	60	40	100	2
18CS512	R Programming Lab	-	-	3	60	40	100	2
18CS513	Design of Algorithms lab	-	-	3	60	40	100	2
18CS521	Technical review and Seminar-I	-	-	1	50	50	100	1
18ID581	Quantitative and Reasoning Ability	1	-	-	60	40	100	1
NSS/NCC/Social Services								
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### Third Year – Second Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18CS601	Software Engineering	3	1	-	40	60	100	3
18CS602	Unix Programming	3	1	-	40	60	100	3
18CS603	Data Warehousing and Mining	3	1	-	40	60	100	3
18CS502	Management Science	3	1	-	40	60	100	3
18CS63X	Professional Elective - II	3	1	-	40	60	100	3
18HS402	Professional Ethics & Human Values	2	-	-	-	-	-	-
18CS611	Unix Programming Lab	-	-	3	60	40	100	2
18CS612	Data Warehousing and Mining Lab	-	-	3	60	40	100	2
18CS651	Mean Stack-I	-	-	3	60	40	100	2
18CS661	Mini project - II		3		30	70	100	2
18CS621	Technology review & seminar - II	-	-	1	50	50	100	1
NSS/NCC/Social Services								
Total Credits								24



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### Fourth Year – First Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18CS701	Unified Modeling Language	3	1	-	40	60	100	3
18CS702	Machine Learning	3	1	-	40	60	100	3
18CS703	Mobile Computing	3	1	-	40	60	100	3
18CS733	Human Computer Interaction	3	1	-	40	60	100	3
18ME834	Green Engineering Systems	3	1	-	40	60	100	3
18CS711	Mobile Computing Lab	-	-	3	60	40	100	2
18CS712	UML Lab	-	-	3	60	40	100	2
18CS751	Machine Learning Using Python	-	-	3	60	40	100	2
18CS721	Technology review & Seminar - III	-	-	-	50	50	100	1
NSS/NCC/Social Services								
							Total Credits	22

### Fourth Year – Second Semester

Course Code	Course Title	Periods			Maximum Marks		Total	Credits
		L	T	P	Internal	External		
18CS801	Distributed Systems	3	1	-	40	60	100	3
18CS802	Cryptography and Network Security	3	1	-	40	60	100	3
18CS832	Software Project Management	3	1	-	40	60	100	3
18EC633	Embedded Systems	3	1	-	40	60	100	3
18CS871	Project Work		10		50	150	200	10
18CS821	Technology Review & Seminar - IV	-	-	1	50	50	100	1
							Total Credits	23



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I YEAR		II YEAR		III YEAR		IV YEAR		Total Credits
I Sem	II Sem	I Sem	II Sem	I Sem	II Sem	I Sem	II Sem	
25	25	23	25	23	24	22	23	190

### PROFESSIONAL ELECTIVES

Professional Elective I III-Year I Semester	Course code	Course title
	18CS531	Introduction to Internet of Things
	18CS532	Micro Processors and Intefacing
	18CS533	Computer Graphics
	18CS534	Machine Learning

Professional Elective II III-Year II Semester	Course code	Course title
	18CS631	Cloud Computing
	18CS632	Realtime Operating Systems
	18CS633	E-Commerce
	18CS634	Neural Networks

Professional Elective III IV-Year I Semester	Course code	Course title
	18CS731	Software Testing Methodologies
	18CS732	Information Retrieval Systems
	18CS733	Human Computer Interaction
	18CS734	Big Data Analysis

Professional Elective IV IV-Year II Semester	Course code	Course title
	18CS831	Artificial Intelligence
	18CS832	Software Project Management
	18CS833	Principles of Programming Languages
	18CS834	Distributed Operating Systems





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### OPEN ELECTIVES

GROUP 1	Open Elective I IV-Year I Semester	Course code	Course title
		18EE741	Utilization of Electrical Energy
		18EE634	Special Electrical Machines
		18EC301	Electronics Devices and Circuits
		18EC343	Embedded Systems

GROUP 1	Open Elective II IV-Year II Semester	Course code	Course title
		18CE742	Environmental and Pollution Control
		18CE842	Air Pollution Control
		18ME834	Green Engineering Systems
		18ME734	Automation in Manufacturing



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### SKILL LAORATORY –I

Subject Code	CONTENT
18CS651	Campus Connect Program
	Mean Stack-I
	Internet of Things
	Robotic Path Automation

### SKILL LAORATORY – II

Subject Code	CONTENT
18CS751	Mean Stack-II
	Machine Learning Using Python
	IOT Using Raspberry pi
	Cloud Computing Lab