



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA
VIZIANAGARAM
VIZIANAGARAM-535 003, A.P, INDIA**

M. TECH - COMPUTER SCIENCE & ENGINEERING (Course Code-58)

COURSE STRUCTURE AND SYLLABUS (R25)

(Applicable for batches admitted from Academic Year 2025-2026 onwards)

COURSE STRUCTURE

I Year – I SEMESTER

S. No.	Course Code	Course Title	L	T	P	C
1	M255801	Program Core–1 Data Structures and Algorithm Analysis	3	1	0	4
2	M255802	Program Core–2 Machine Learning	3	1	0	4
3	M255803	Program Core–3 Mathematical foundations of computer science	3	1	0	4
4		Program Elective –I	3	0	0	3
5		Program Elective –II	3	0	0	3
6	M255814	Laboratory–1 Data Structures and Algorithm Analysis lab	0	1	2	2
7	M255815	Laboratory–2 Machine Learning Lab	0	1	2	2
8	M255816	Seminar-I	0	0	2	1
		TOTAL	15	5	6	23

List of Professional Elective Courses in I Semester (Electives–I)

S. No.	Course Code	Course Title
1	M255804	Computer Vision and Image Processing
2	M255805	Soft computing
3	M255806	Advanced Computer Networks
4	M255807	Human Computer interaction
5	M255808	Any minimum 12 weeks MOOCS/NPTEL courses suggested by BOS

@Students can opt any one course from the above list

List of Professional Elective Courses in I Semester (Electives–II)

S. No.	Course Code	Course Title
1	M255809	Recommender Systems
2	M255810	High Performance Computing
3	M255811	Advance operating system
4	M255812	Advanced Compiler Design
5	M255813	Any minimum 12 weeks MOOCS/NPTEL courses suggested by BOS

@Students can opt any one course from the above list

I Year – II SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	C
1	N255801	ProgramCore–4 Advanced Data Mining	3	1	0	4
2	N255802	ProgramCore–5 Agile Software Development	3	1	0	4
3	N255803	ProgramCore–6 Introduction to Quantum computing	3	1	0	4
4		Program Elective –III	3	0	0	3
5		Program Elective –IV	3	0	0	3
6	N255814	Laboratory–3 Advanced Data Mining lab	0	1	2	2
7	N255815	Laboratory–4 Quantum computing lab	0	1	2	2
8	N255816	Seminar–II	0	0	2	1
		TOTAL	15	5	6	23

List of Professional Elective Courses in II Semester (Electives III)

S. No.	Course Code	Course Title
1	N255804	Feature Engineering
2	N255805	Generative AI
3	N255806	Cyber Security
4	N255807	Natural Language processing
5	N255808	Any minimum12 weeks MOOCS/NPTEL courses suggested by BOS

@Students can opt any one course from the above list

List of Professional Elective Courses in II Semester (Electives IV)

S. No.	Course Code	Course Title
1	N255809	Block Chain Technologies
2	N255810	DevOps
3	N255811	Internet of Things
4	N255812	Design Patterns
5	N255813	Any minimum12 weeks MOOCS/NPTEL courses suggested by BOS

@Students can opt any one course from the above list

II Year – I SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	C
1	O255801	Research Methodology and IPR / <i>Swayam 12 week MOOC course – RM&IPR</i>	3	0	0	3
2	O255802	Summer Internship/ Industrial Training (8-10 weeks)*	-	-	-	3
3	O255803	Comprehensive Viva [#]	-	-	-	2
4	O255804	Dissertation Part – A ^{\$}	-	-	20	10
		TOTAL	3	-	20	18

* Student attended during summer / year break and assessment will be done in 3rd Sem.

Comprehensive viva can be conducted courses completed up to second sem.

\$ Dissertation – Part A, internal assessment

II Year – II SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	C
1	P255801	Dissertation Part – B [%]	-	-	32	16
		TOTAL	-	-	32	16

% External Assessment