12.05.18

M. Tech Programme APPLIED COMPUTATIONAL MATHEMATICS (ACM) w.e.f. 2018-19 Batch

FIRST SEMESTER

Sl. No.	Course Code	Title	Contact Hours				Credits
			L	T	P	Total	
1.	18M11MA111	Applied and Computational Linear Algebra	3	-	-	3	3
2.	18M11MA112	Analytic Number Theory	3	-	-	3	3
3.		Elective – I	3	-	-	3	3
4.		Elective – II	3	-	-	3	3
5.		Elective – III	3	-	-	3	3
6.	18M11GE111	Research Methodology and Intellectual Property Rights	2			2	2
7.	18M15MA111	Software Lab 1	-		6	6	3
		TOTAL				23	20

SECOND SEMESTER

Sl. No.	Course Code	Title	Contact Hours				Credits
			L	T	P	Total	
1.	18M11MA113	Abstract Algebra and Applications	3	-	-	3	3
2.	18M11MA114	Functional Analysis	3	-	-	3	3
3.		Elective – IV	3	-	-	3	3
4.		Elective – V	3	-	-	3	3
5.		Audit-I	2	-	-	2	Qualifying
6.	18M15MA112	Project Based Learning - I				4	2
7.	18M15MA113	Software Lab 2	-	-	6	6	3
		TOTAL				24	17

THIRD SEMESTER

Sl. No.	Enrol No.	Title	Contact Hours				Credits
			L	T	P	Total	
		Open Electives	3			3	3
1.	18M17MA211	Seminar & Term Paper				4	4
	18M17MA212	OR Supervised Study					
		OR Earn credits by transfer eg. MOOCs, Course Work at another Institute,					
2	18M15MA211	Project Based Learning - II				8	4
3.	18M17MA213/18M17MA214/18M17MA215	Dissertation /Industrial Project / Entrepreneurial Project				8	4
4.		Audit-II	2			2	Qualifying
		TOTAL				25	15

FOURTH SEMESTER

Sl. No.	Course Code	Title	Contact Hours				Credits
			L	T	P	Total	
1.	Can't be assigned due to clash of code with 3rd sem	Dissertation /Industrial Project/ Entrepreneurial Project				32	16
		TOTAL				32	16

TOTAL CREDITS: 68

Courses for Audit-I and II:

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through life enlightenment skills

Subjects for Open Electives:

1. Business Analytics
2. Industrial Safety
3. Operations Research
4. Cost Management of Engineering Projects
5. Composite Materials
6. Waste to Energy

Elective Courses

Elective I , II and III

1. Automata and Theory of Computation
2. Advanced Operations Research
3. Advanced Differential Equations
4. Computer Programming and Simulation
5. Linear Statistical Models
6. Integral Transforms

Elective IV and V

1. Advanced Numerical Techniques
2. Advanced Optimization Techniques
3. Calculus of Variations and Finite Element Method
4. Fractals and Chaos
5. Wavelets and Applications
6. Computational Fluid Dynamics

Project Based Learning – I

1. Conformal transformations and their applications
2. Contraction mapping and applications

Project Based Learning – II

1. Numerical solutions of initial and boundary value problems
2. Applications of R-software in statistical analysis
3. Solution of algebraic equations using Scilab