Maharaja Education Trust (R), Mysuru
MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
An Autonomous Institute affiliated to Visvesvaraya Technological University, Belagavi
Belawadi, Srirangapatna Taluk, Mandya – 571 477
Approved by AICTE, New Delhi |Recognized by Govt. of Karnataka
Ref: MITM/Dean-Academics/2023-24/15

Scheme of Teaching and Examination for Master of Technology (Autonomous Scheme-2023)
Master of Technology (M.Tech) – Computer Science and Engineering
(EffectivefromtheAcademicYear2023-24)

I-Semester -Computer Science and Engineering

Sl. No.	Course Area	Course Code	Course Title	TD/ PSB	Teaching Hours/Week				Examination				Credits
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	BS	M23MCS101	Advance Mathematics for Emerging Trend	Basic Science	03		00	00	03	50	50	100	3
2	IPC	M23MCS102	Essential of Data Science	CSE	03		02	00	03	50	50	100	4
3	PC	M23MCS103	Cyber Security and Digital Forensics	CSE	03		00	00	03	50	50	100	4
4	PC	M23MCS104	Advanced DBMS	CSE	02		00	00	03	50	50	100	3
5	PC	M23MCS105	Artificial Intelligence and Machine Learning	CSE	02		00	00	03	50	50	100	3
6	MC	M23MCS106	Research Methodology and IPR	Any Dept	03		00	00	03	50	50	100	3
7	PCL	M23MCSL107	Advanced DBMS Lab	CSE	01		02	00	03	50	50	100	2
				Total	**17**		**06**	**00**	**17**	**04**	**04**	**700**	**22**

PC:ProfessionalCoreCourse,**PCL**:ProfessionalCoreCourselaboratory,**AE**:AbilityEnhancementCourse,**L:**Lecture,**T**:Tutorial,**P**:Practical**S=SDA**:SkillDevelopmentActivity,**CIE**:ContinuousInternalEvaluation,**SEE**: Semester End Evaluation.

Professional Core Course (PC): Refers to Professional Core Course Theory, its Teaching– Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPC shall be evaluated both by CIE and SEE.

Integrated Professional Core Course (IPC): Integrated Professional Core Course (IPC): Refers to Professional Theory Core Course Integrated with practical of the same course. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper.

Audit Courses /Ability Enhancement Courses Suggested by BOS (ONLINE courses): Audit Courses: These are prerequisite courses suggested by the concerned Board of Studies. Ability Enhancement Courses will be suggested by the BoS if prerequisite courses are not required for the programs.

Ability Enhancement Courses:

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a) These courses are prescribed to help students to enhance their skills in in fields connected to the field of specialization as well allied fields that leads to employable skills. Involving in learning such courses are impetus to lifelong learning.

b) The courses under this category are online courses published in advance and approved by the concerned Board of Studies.

c) Registration to Audit /Ability Enhancement Course shall be done in consultation with the mentor and is compulsory during the concerned semester.

d) In case a candidate fails to appear for the proctored examination or fails to pass the selected online course, he/she can register and appear for the same course if offered during the next session or register for a new course offered during that session, in consultation with the mentor.

e) The Audit Ability Enhancement Course carries no credit and is not counted for vertical progression. However, a pass in such a course is mandatory for the award of the degree.

Skill development activities: Under Skill development activities in a concerning course, the students should

1. Interact with industry (small, medium, and large).

2. Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.

3. Involve in case studies and field visits/ fieldwork.

4. Accustomed to the use of standards/codes etc., to narrow the gap between academia and industry.

5. Handle advanced instruments to enhance technical talent.

6. Gain confidence in modelling of systems and algorithms for transient and steady-state operations, thermal study, etc.

7. Work on different software/s (tools) to simulate, analyze and authenticate the output to interpret and conclude.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.

Students and the course instructor/s to involve either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical –activities which will enhance their skill. The prepared report shall be evaluated for CIE marks.

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Scheme of Teaching and Examination for Master of Technology (Autonomous Scheme-2023)
Master of Technology (M.Tech) – Computer Science and Engineering
(EffectivefromtheAcademicYear2023-24)

II-Semester -Computer Science and Engineering

Sl. No.	Course Area	Course Code	Course Title	TD/ PSB	Teaching Hours/Week				Examination				Credits
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PC	M23MCS201	Big Data Analytics		02	--	00	02	03	50	50	100	3
2	IPC	M23MCS202	Internet of Things		03	--	02	00	03	50	50	100	4
3	PE	M23MCS203x	Professional Elective III		02	--	00	02	03	50	50	100	3
4	PE	M23MCS204x	Professional Elective IV		02	--	00	02	03	50	50	100	3
5	MP	M23MCS205	Mini Project with Seminar		00	--	04	02	--	100	--	100	3
6	PCL	M23MCSL206	Big Data Analytics Laboratory		01	--	02	00	03	50	50	100	02
					10	**--**	**08**	**00**	**15**	**350**	**250**	**600**	**18**

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Professional Elective 3		Professional Elective 4	
Course Code	**Coursetitle**	**CourseCode**	**Coursetitle**
M23MCS203A	Wireless Networks & Mobile Computing	M23MCS204A	Digital Image Processing
M23MCS203B	Natural Language Processing	M23MCS204B	Object Oriented Design
M23MCS203C	Cyber Security and Cyber Law	M23MCS204C	Multimedia Communications
M23MCS203D	Decision Support System	M23MCS204D	NoSQL Database

Professional Core Course (PC): Refers to Professional Core Course Theory, its Teaching– Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPC shall be evaluated both by CIE and SEE.

Integrated Professional Core Course (IPC): Integrated Professional Core Course (IPC): Refers to Professional Theory Core Course Integrated with practical of the same course. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper.

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Audit Courses /Ability Enhancement Courses Suggested by BOS (ONLINE courses): Audit Courses: These are prerequisite courses suggested by the concerned Board of Studies. Ability Enhancement Courses will be suggested by the BoS if prerequisite courses are not required for the programs.

Ability Enhancement Courses:

a) These courses are prescribed to help students to enhance their skills in in fields connected to the field of specialization as well allied fields that leads to employable skills. Involving in learning such courses are impetus to lifelong learning.

b) The courses under this category are online courses published in advance and approved by the concerned Board of Studies.

c) Registration to Audit /Ability Enhancement Course shall be done in consultation with the mentor and is compulsory during the concerned semester.

d) In case a candidate fails to appear for the proctored examination or fails to pass the selected online course, he/she can register and appear for the same course if offered during the next session or register for a new course offered during that session, in consultation with the mentor.

e) The Audit Ability Enhancement Course carries no credit and is not counted for vertical progression. However, a pass in such a course is mandatory for the award of the degree.

Skill development activities: Under Skill development activities in a concerning course, the students should

1. Interact with industry (small, medium, and large).

2. Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.

3. Involve in case studies and field visits/ fieldwork.

4. Accustomed to the use of standards/codes etc., to narrow the gap between academia and industry.

5. Handle advanced instruments to enhance technical talent.

6. Gain confidence in modelling of systems and algorithms for transient and steady-state operations, thermal study, etc.

7. Work on different software/s (tools) to simulate, analyze and authenticate the output to interpret and conclude.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.

Students and the course instructor/s to involve either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical –activities which will enhance their skill. The prepared report shall be evaluated for CIE marks.

Mini Project with Seminar: This may be hands-on practice, survey report, data collection and analysis, coding, mobile app development, field visit and report preparation, modelling of system, simulation, analysing and authenticating, case studies, etc.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any, and a senior faculty of the department. Students can present the seminar based on the completed mini project. Participation in the seminar by all postgraduate students of the program shall be mandatory.

The CIE marks awarded for Mini-Project work and Seminar, shall be based on the evaluation of Mini Project work and Report, Presentation skill and performance in Question-and-Answer session in the ratio 50:25:25. Mini-Project with Seminar shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take- up/complete the Mini Project and Seminar shall be declared as fail in that course and must complete the same during the subsequent semester. There is no SEE for this course.

Internship: All the students shall have to undergo a mandatory internship of 06 weeks during the vacation of II and III semesters. A Semester End Examination shall be conducted during III semester and the prescribed internship credit shall be counted in the same semester. The internship shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in the internship course and must complete the same during the subsequent examinations after satisfying the internship requirement.

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Scheme of Teaching and Examination for Master of Technology (Autonomous Scheme-2023)
Master of Technology (M.Tech) – Computer Science and Engineering
(EffectivefromtheAcademicYear2023-24)

III-Semester -Computer Science and Engineering

Sl. No.	Course Area	Course Code	Course Title	TD/ PSB	Teaching Hours/Week				Examination					Credits
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks		
1	PC	M23MCS301	Cloud Computing		03	00	00	02	03	50	50	100		4
2	PE	M23MCS302x	Professional Elective V		03	00	00	0	03	50	50	100		3
3	OE	M23MCS303x	Open Elective		03	00	00	00	03	50	50	100		3
4	PW	M23MCS304	Project Work Phase I		00	00	06	00	--	100	--	100		3
5	SP	M23MCS305	Societal Project		00	00	06	00	--	100	--	100		3
6	IN	M23MCS306	Internship		06 Weeks Internship Completed during the intervening vacation of II and III Semester				--	50	50	100		6
			Total		09	00	12	02	09	400	200	600		22

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ProfessionalElective5		**Open Elective**	
Course Code	Coursetitle	Course Code	Coursetitle
M23MCS302A	Cloud Security	M23MCS303A	IoT and Applications
M23MCS302B	Cyber Forensics	M23MCS303B	Fundamentals of Artificial Intelligence
M23MCS302C	Soft and Evolutionary Computing	M23MCS303C	Big Data Analytics
M23MCS302D	Advances in Storage Area Network	M23MCS303D	Web Technologies
M23MCS302E	Business Intelligence and its Applications	M23MCS303E	Image Processing

Professional Core Course (PC): Refers to Professional Core Course Theory, its Teaching– Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The

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theory part of the IPC shall be evaluated both by CIE and SEE.

Integrated Professional Core Course (IPC): Integrated Professional Core Course (IPC): Refers to Professional Theory Core Course Integrated with practical of the same course. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in theSEE question paper.

Project Work Phase-1: The project work shall be carried out individually. However, in case a disciplinary or interdisciplinary project requires more participants, then a group consisting of notmore than three shall be permitted. Students in consultation with the guide/co-guide (if any) in disciplinary project or guides/co-guides (if any) of all departments in case of multidisciplinary projects, shall pursue a literature survey and complete the preliminary requirements of the selected Project work. Each student shall prepare a relevant introductory project document and present a seminar.

Internship: All the students shall have to undergo a mandatory internship of 06 weeks during the vacation of II and III semesters. A Semester End Examination shall be conducted during III semester and the prescribed internship credit shall be counted in the same semester. The internship shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in the internship course and must complete the same during the subsequent examinations after satisfying the internship requirement.

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							Scheme of Teaching and Examination for Master of Technology (Autonomous Scheme-2023)

Scheme of Teaching and Examination for Master of Technology (Autonomous Scheme-2023)
Master of Technology (M.Tech) – Signal Processing
(EffectivefromtheAcademicYear2023-24)

IV-Semester-Branch

Sl. No.	Course Area	Course Code	Course Title	TD/ PSB	Teaching Hours/Week				Examination				Credits
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PW	M23MCS401	Project Work Phase II		--	--	08	0	03	100	100	200	18
				Total	**--**	**--**	**08**	**0**	**03**	**100**	**100**	**200**	**18**

Project Work Phase-2: Students in consultation with the guide/co-guide (if any) in disciplinary project or guides/co-guides (if any) of all departments in case of multidisciplinary projects, shall continue to work of Project Work phase -1 to complete the Project work. Each student / batch of students shall prepare project document and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, all Guide/s and co-guide/s (if any) and a senior faculty of the concerned departments. The CIE marks awarded for project work phase -2 shall be based on the evaluation of Project Report, Project Presentation skill, and performance in the Question-and- Answer session in the ratio of 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the Institute norms.