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Govt. of Maharashtra GOVT. COLLEGE OF ENGINEERING, KARAD

(An Autonomous Institute of Govt. of Maharashtra)

Vidyanagar, Karad -415124 Dist.- Satara

B. Tech. in Information **Technology with Honors** and Multidisciplinary **Minor**

(Cyber Physical Systems)

Government College of Engineering, Karad

PROPOSED SCHEME OF INSTRUCTION

Programme: Honors and Multidisciplinary Minor (Cyber Physical Systems)

- Selection of the relevant MOOC course should be with the prior permission of Head of Department
- To get B. Tech in Information Technology with Honors and Multidisciplinary Minor (Cyber Physical Systems) student need to earn extra 18 credits by completing 5 courses (One course / semester) as mentioned below.
- Honor courses can be completed through online platforms (NPTEL/SWAYAM).
- Duration of MOOC Course should be 8-12 weeks.
- Students can choose any one specialization given by the department and complete all the assigned courses under the specialization to earn total 194 credits which consists of 176 credits of regular Multidisciplinary Minor courses and 18 credits of Honor courses.
- Student should complete the MOOC course certification and submit the copy of certificate to controller of examinations, GCE, Karad through program coordinator

Sr. No.	Course Code	Course Title	Credits	Major Semester
1	ITHM-0401	Foundations of Cyber Physical Systems	04	IV
2	ITHM-0501	Embedded and Cyber-Physical Systems	04	V
3	ITHM-0601	Cyber Security and Privacy	04	VI
4	ITHM-0701	Industrial Internet of Things	03	VII
5	ITHM-0801	Major Capstone Project (Design & Development)	03	VIII

PROGRESSIVE TOTAL CREDITS: 18



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(An Autonomous Institute of Govt. of Maharashtra) Vidyanagar, Karad -415124 Dist.- Satara

B. Tech. in Information Technology with Honors with Research and Multidisciplinary Minor

Government College of Engineering, Karad

PROPOSED SCHEME OF INSTRUCTION

Programme: Honors with Research and Multidisciplinary Minor

The student will work on Research Project or Dissertation for 18 Credits in the Fourth Year in respective discipline. The distribution of 18 credits for Research project in Sem-VII and Sem-VIII is given below.

To get B. Tech in Information Technology with Honors with Research and Multidisciplinary Minor student need to earn total 194 Credits which consists of 176 credits of regular Multidisciplinary Minor courses and 18 credits of Research courses.

(Major: Semester – VII)

Sr.	Course	Course Title	L	P	Contact Hrs/Wk	Course Credits	EXAM SCHEME		
No.	Code						PBE-	PBE- II	TOTAL
1	ITHRM- 0701	Intellectual Property Rights (MOOC)		1		03	-1	1	
2	ITHRO- 0702	Research Project Phase -I		12	12	06	100	100	200
		Total		12	12	09	100	100	200

(Major: Semester – VIII)

C	Course	Course Title	L	P	Contact Hrs/Wk	Course Credits	EXAM SCHEME		
Sr. No.	Course Code						PBE-	PBE- II	TOTAL
1	ITHRO- 0801	Research Project Phase -II		18	18	09	100	100	200
		Total		18	18	09	100	100	200

L- Lecture P-Practical

FA- Formative Assessment SA - Summative Assessment (For Laboratory End Semester performance) PBE-I—Project-based Examination (For Laboratory Mid Semester Performance) PBE-II Project-based Examination (For Laboratory End Semester Performance)

PROGRESSIVE TOTAL CREDITS: 18

Guidelines:-

- Selection of the relevant MOOC course should be with the prior permission of Head of Department.
- Duration of MOOC Course should be 8-12 weeks.
- Student should complete the MOOC course certification and submit the copy of certificate to controller of examinations, GCE, Karad through program coordinator.



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(An Autonomous Institute of Govt. of Maharashtra) Vidyanagar, Karad -415124 Dist.- Satara

B. Tech. in Information Technology with Double Minors (Multidisciplinary and Specialization Minors)

Government College of Engineering, Karad PROPOSED SCHEME OF INSTRUCTION

Programme: Double Minors (Multidisciplinary and Specialization Minors)

- Selection of the relevant MOOC course should be with the prior permission of Head of Department.
- To get B. Tech in Information Technology with Double Minors (Multidisciplinary and Specialization Minors) student need to earn extra 18 credits by completing minor courses
- Minor courses can be completed through online platforms. (NPTEL/SWAYAM).
- Duration of MOOC Course should be 8-12 weeks.
- Students can choose any one specialization given by the department and complete all the six courses under the specialization to earn total 194 credits which consists of 176 credits of regular Multidisciplinary Minor courses and 18 credits of Honor courses.
- Student should complete the MOOC course certification and submit the copy of certificate to controller of examinations, GCE, Karad through program coordinator

Sr. No.	Course Code	Course Title	Credits	Major Semester
1	ITDM-0401	Fundamentals of Data Structure and Algorithms	04	IV
2	ITDM-0501	Database Management Systems	04	V
3	ITDM-0601	Machine Learning	04	VI
4	ITDM-0701	Cloud Computing	03	VII
5	ITDM-0801	Major Capstone Project (Design & Development)	03	VIII

PROGRESSIVE TOTAL CREDITS: 18

Guidelines: - Students will take up to 5–6 additional courses in another Engineering/ Technology/ Emerging Area of Specialization of 18 credits distributed over semester III –VIII. These 18 credits will be over and above the 176 credits prescribed for four-year multidisciplinary bachelor's degree in Engg/Tech Program.