



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.)

(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV, Bhopal)

NAAC Accredited with A+ + Grade

## Department of Computer Science & Engineering

### Scheme of Evaluation

### B. Tech. VI Semester (Computer Science & Design)

(for batch admitted in academic session 2021-22)

| S. No.       | Subject Code | Category Code | Subject Name                               | Maximum Marks Allotted |                                |                       |                  |                |                       |                          |            | Total Marks | Contact Hours per week |    |   | Total Credits | Mode of Teaching | Mode of Exam. |      |
|--------------|--------------|---------------|--|------------------------|--------------------------------|-----------------------|------------------|----------------|-----------------------|--------------------------|------------|-------------|------------------------|----|---|---------------|------------------|---------------|------|
|              |              |               |  | Theory Slot            |                                |                       |                  | Practical Slot |                       | MOOCs                    |            |             | L                      | T  | P |               |                  |               |      |
|              |              |               |  | End Term Evaluation    |                                | Continuous Evaluation |                  | End Sem. Exam. | Continuous Evaluation |                          | Assignment |             |                        |    |   |               |                  |               | Exam |
|              |              |               |  | End Sem. Exam.         | Proficiency in subject /course | Mid Sem. Exam.        | Quiz/ Assignment |                | Lab work & Sessional  | Skill Based Mini Project |            |             |                        |    |   |               |                  |               |      |
| 1.           | 290601       | DC            | IOT System Design                          | 50                     | 10                             | 20                    | 20               | 60             | 20                    | 20                       | -          | -           | 200                    | 3  | - | 2             | 4                | Offline       | PP   |
| 2.           | 290602       | DC            | Soft Computing                             | 50                     | 10                             | 20                    | 20               | 60             | 20                    | 20                       | -          | -           | 200                    | 3  | - | 2             | 4                | Offline       | PP   |
| 3.           |              | DE            | Departmental Elective* (DE-1)              | -                      | -                              | -                     | -                | -              | -                     | -                        | 25         | 75          | 100                    | 3  | - | -             | 3                | Online        | MCQ  |
| 4.           |              | OC            | Open Category (OC-1)**                     | 50                     | 10                             | 20                    | 20               | -              | -                     | -                        | -          | -           | 100                    | 3  | - | -             | 3                | Offline       | PP   |
| 5.           | 290603       | DC            | Artificial Intelligence & Machine Learning | 50                     | 10                             | 20                    | 20               | 60             | 20                    | 20                       | -          | -           | 200                    | 3  | - | 2             | 4                | Offline       | PP   |
| 6.           | 2900604      | DLC           | Minor Project-II                           | -                      | -                              | -                     | -                | 60             | 40                    | -                        | -          | -           | 100                    | -  | - | 4             | 2                | Offline       | SO   |
| 7.           | 200XXX       | CLC           | Novel Engaging Course (Informal Learning)  | -                      | -                              | -                     | -                | 50             | -                     | -                        | -          | -           | 50                     | -  | - | 2             | 1                | Blended       | SO   |
| <b>Total</b> |              |               |  | 200                    | 40                             | 80                    | 80               | 290            | 100                   | 60                       | 25         | 75          | 950                    | 15 | - | 12            | 21               | -             | -    |
| 8.           | 1000007      | MAC           | Intellectual Property Rights (IPR)         | 50                     | 10                             | 20                    | 20               | -              | -                     | -                        | -          | -           | 100                    | 2  | - | -             | GRADE            | Online        | MCQ  |

Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester

Additional Course for Honours or minor Specialization

Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

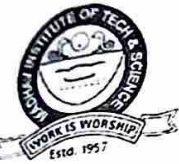
<sup>S</sup>Proficiency in course/subject-includes the weightage towards ability/skill/competence/knowledge level/ expertise attained etc. in that particular course/subject.

<sup>SS</sup>MCQ: Multiple Choice Question    <sup>SS</sup>AO: Assignment + Oral    <sup>SS</sup>PP: Pen Paper    <sup>SS</sup>SO: Submission + Oral

\*Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform with credit transfer,\*\* Course run in traditional mode, \*This course run through SWAYAM/NPTEL/ MOOC platform

| Mode of Teaching |        |         |      | Mode of Examination |             |    |       |      | Total Credits |          |
|------------------|--------|---------|------|---------------------|-------------|----|-------|------|---------------|----------|
| Theory           |        | Blended | Lab  | Theory              |             |    | Lab   | NEC  |               |          |
| Offline          | Online |         |      | Offline             | Interactive | PP |       |      |               | A+O      |
| 12               | 3      | Offline | 5    | 1                   | 15          | -  | 3     | 2    | 1             | 21       |
| 57.14            | 14.28  | -       | 23.8 | 4.76                | 71.42       | -  | 14.28 | 9.52 | 4.76          | Credit % |

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## Department of Computer Science & Engineering

### Scheme of Evaluation

### B. Tech. VI Semester (Computer Science & Design)

**(for batch admitted in academic session 2021-22)**

| *DE-I (SWAYAM/NPTEL/ MOOC platform) |   | **Open Category (OC-1)(For students of other branches) |                    |
|-------------------------------------|---|--|--------------------|
| 290651                              | Microprocessor and Interfacing(noc24-EE40)-12 Week                      | 910100   | Data Structures    |
| 290652                              | Embedded Sensing, Actuation and Interfacing Systems(noc24-ee68)-12 week | 910101   | Python Programming |
| 290653                              | Integrated Circuits and Applications -12 week(noc24-ee73-12 week)       |  |                    |

| *Minor (SWAYAM/NPTEL/ MOOC platform)<br>(For students of other branches) |  | *Honours (SWAYAM/NPTEL/ MOOC platform) |  |
|--|--|--|--|
| 1  | Programming in Modern C++(noc24-cs44)-12week                           | 1.                                     | Track1-Information Security<br>1. Information Security - 5 - Secure Systems Engineering(noc24-cs31)-12 week<br>2. Foundations of Cryptography(noc24-cs01)-12week |
| 2  | Introduction To Internet Of Things(noc24-cs35)-12 week                 | 2.                                     | Track 2-IoT<br>1. Introduction To Industry 4.0 And Industrial Internet Of Things (noc24-cs34)-12 week<br>2. Sensors and Actuators(noc24-ee45)-12 week            |
| 3  | Introduction to Automata, Languages and Computation(noc24-cs32)-12week | 3.                                     | Track 3- High Performance Computing<br>1. Parallel Computer Architecture(noc24-cs63)-12 week<br>2. Basics of Computational Complexity (noc24-cs05)-12 week       |

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Department of Computer Science and Engineering

Scheme of Examination

B.Tech. IV Semester (Computer Science and Design)

| S. No.  | Subject Code | Category Code             | Subject Name                                  | Maximum Marks Allotted |                               |                       |                 |                       |                          |           | Total Marks | Contact Hours per week |          |           | Total Credits | Mode of Teaching (Offline/Online) | Mode of Exam |   |
|---|--------------|---------------------------|---|------------------------|-------------------------------|-----------------------|-----------------|-----------------------|--------------------------|-----------|-------------|------------------------|----------|-----------|---------------|-----------------------------------|--------------|---|
|   |              |                           |   | Theory Slot            |                               |                       |                 | Practical Slot        |                          |           |             | End Sem.               | L        | T         |               |                                   |              | P |
|   |              |                           |   | End Term Evaluation    |                               | Continuous Evaluation |                 | Continuous Evaluation |                          |           |             |                        |          |           |               |                                   |              |   |
|   |              |                           |   | End Term Evaluation    | Proficiency in subject/course | Mid Sem. Exam.        | Quiz/Assignment | Lab Work & Sessional  | Skill based mini project |           |             |                        |          |           |               |                                   |              |   |
| 1.  | 2290401      | DC                        | Web Technologies                              | 50                     | 10                            | 20                    | 20              | 60                    | 20                       | 20        | 200         | 3                      | -        | 2         | 4             | Blended                           | PP           |   |
| 2.  | 2290402      | DC                        | Microprocessor Design                         | 50                     | 10                            | 20                    | 20              | 60                    | 20                       | 20        | 200         | 2                      | 1        | 2         | 4             | Blended                           | PP           |   |
| 3.  | 2290403      | DC                        | Optimization Techniques                       | 50                     | 10                            | 20                    | 20              | -                     | -                        | -         | 100         | 3                      | -        | -         | 3             | Blended                           | PP           |   |
| 4.  | 2290404      | DC                        | Theory of Computation                         | 50                     | 10                            | 20                    | 20              | -                     | -                        | -         | 100         | 2                      | 1        | -         | 3             | Blended                           | PP           |   |
| 5.  | 2290405      | DC                        | Computer Networks                             | 50                     | 10                            | 20                    | 20              | -                     | -                        | -         | 100         | 3                      | -        | -         | 3             | Blended                           | PP           |   |
| 6.  | 2290406      | DLC                       | Programming Lab                               | -                      | -                             | -                     | -               | 60                    | 20                       | 20        | 100         | -                      | -        | 4         | 2             | Offline                           | SO           |   |
| 7.  | 2000XXX      | CLC                       | Novel engaging courses                        | -                      | -                             | -                     | -               | 50                    | -                        | -         | 50          | -                      | -        | 2         | 1             | Interactive                       | SO           |   |
| <b>Total</b>  |              |                           |   | <b>250</b>             | <b>50</b>                     | <b>100</b>            | <b>100</b>      | <b>230</b>            | <b>60</b>                | <b>60</b> | <b>850</b>  | <b>13</b>              | <b>2</b> | <b>10</b> | <b>20</b>     |                                   |              |   |
| 8.  | 1000001      | MAC                       | Indian Constitution and Traditional Knowledge | 50                     | 10                            | 20                    | 20              | -                     | -                        | -         | 100         | 2                      | -        | -         | Grade         | Online                            | MCQ          |   |
| 9.  | 3000003      | Natural Sciences & Skills | Environmental Engineering                     | 50                     | 10                            | 20                    | 20              | 30                    | 10                       | 10        | 150         | 1                      | -        | 2         | Grade         | Online                            | MCQ          |   |
| Summer Internship Project-II (Soft skills Based) for two weeks duration: Evaluation in V Semester |              |                           |   |                        |                               |                       |                 |                       |                          |           |             |                        |          |           |               |                                   |              |   |

MCQ: Multiple Choice Question    AO: Assignment + Oral    OB: Open Book    PP: Pen Paper    SO: Submission & Oral    CLC: College level course  
<sup>S</sup>Proficiency in course/subject – includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance ,one minute paper writing etc. in that particular course/subject,SS Course will run for Group A/B in III/IV semester respectively.

| Mode of Teaching |        |         |     |     | Mode of Examination |             |    |     |               | Total Credits |
|------------------|--------|---------|-----|-----|---------------------|-------------|----|-----|---------------|---------------|
| Theory           |        | Blended | Lab | NEC | Theory              |             |    | Lab | SIP/ SLP/ NEC |               |
| Offline          | Online |         |     |     | Offline             | Interactive | PP |     |               |               |
| -                | -      | 10      | 5   | 4   | 1                   | 17          | -  | 2   | 1             | 20            |
| -                | -      | 50      | 25  | 20  | 5                   | 85          | -  | 10  | 5             | Credits %     |

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Department of Computer Science and Engineering  
Scheme of Evaluation

B. Tech. II Semester (Computer Science and Design)

(for batch admitted in academic session 2023-24)

| S. No.       | Subject Code | Category Code             | Subject Name                              | Maximum Marks Allotted |                                |                       |                 |                |                       |                          | Total Marks | Contact Hours per week |           |           | Total Credits | Mode of Teaching | Mode of Exam. | Duration of Exam. |
|--------------|--------------|---------------------------|---|------------------------|--------------------------------|-----------------------|-----------------|----------------|-----------------------|--------------------------|-------------|------------------------|-----------|-----------|---------------|------------------|---------------|-------------------|
|              |              |                           |   | Theory Slot            |                                |                       |                 | Practical Slot |                       |                          |             | L                      | T         | P         |               |                  |               |                   |
|              |              |                           |   | End Term Evaluation    |                                | Continuous Evaluation |                 | End Sem. Exam  | Continuous Evaluation |                          |             |                        |           |           |               |                  |               |                   |
|              |              |                           |   | End Sem. Exam          | Proficiency in subject /course | Mid Sem. Exam.        | Quiz/Assignment |                | Lab Work & Sessional  | Skill Based Mini Project |             |                        |           |           |               |                  |               |                   |
| 1.           | 3290221      | DC                        | Data Structures                           | 50                     | 10                             | 20                    | 20              | 40             | 30                    | 30                       | 200         | 3                      | -         | 2         | 4             | Blended          | PP            | 2 Hrs             |
| 2.           | 3290222      | DC                        | Object Oriented Programming & Methodology | 50                     | 10                             | 20                    | 20              | 40             | 30                    | 30                       | 200         | 3                      | -         | 2         | 4             | Blended          | AO            | 2 Hrs             |
| 3.           | 3290223      | DC                        | Computer System Organization              | 50                     | 10                             | 20                    | 20              | -              | -                     | -                        | 100         | 2                      | 1         | -         | 3             | Blended          | PP            | 2 Hrs             |
| 4.           | 3290224      | DC                        | Computer Graphics and Animation           | 50                     | 10                             | 20                    | 20              | 40             | 30                    | 30                       | 200         | 2                      | 1         | 2         | 4             | Blended          | PP            | 2 Hrs             |
| 5.           | 3250106      | BSC                       | Probability and Random Process            | 50                     | 10                             | 20                    | 20              | -              | -                     | -                        | 100         | 3                      | -         | -         | 3             | Offline          | PP            | 2 Hrs             |
| 6.           | 3290225      | DLC                       | Hardware and Troubleshooting Lab          | -                      | -                              | -                     | -               | 40             | 30                    | 30                       | 100         | -                      | -         | 2         | 1             | Offline          | SO            | -                 |
| <b>Total</b> |              |                           |   | <b>250</b>             | <b>50</b>                      | <b>100</b>            | <b>100</b>      | <b>160</b>     | <b>120</b>            | <b>120</b>               | <b>900</b>  | <b>13</b>              | <b>02</b> | <b>08</b> | <b>19</b>     | -                | -             | -                 |
| 7.           | 3000001      | Natural Sciences & Skills | Engineering Physics                       | 50                     | 10                             | 20                    | 20              | 30             | 10                    | 10                       | 150         | 1                      | -         | 2         | GRADE         | Blended          | MCQ           | 1.5 Hrs           |

Induction programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.

<sup>5</sup>Proficiency in course/subject – includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in that particular course/subject  
Natural Sciences & Skills: Engineering Physics / Engineering Chemistry / Environmental Science / Language MCQ: Multiple Choice question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral

| Mode of Teaching |        |         |        | Mode of Examination |    |    |     | Total Credits |         |
|------------------|--------|---------|--------|---------------------|----|----|-----|---------------|---------|
| Theory           |        | Lab     |        | Theory              |    |    | Lab |               |         |
| Offline          | Online | Blended |        | Offline             | PP | AO | MCQ |               | SO      |
|                  |        | Offline | Online |                     |    |    |     |               |         |
| 3                | -      | 8       | 4      | 4                   | 14 | 4  | -   | 1             | 19      |
| 16               |        | 42      | 21     | 21                  | 74 | 21 |     | 5             | Credit% |

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