



**Department of Computer Science and Engineering**  
**School of Technology & Sciences**

SYLLABUS SCHEME FOR M.TECH (2020- 2022)

**FIRST SEMESTER**

| <b>A. THEORY/ PRACTICAL</b> |             |  |                     |          |          |                |
|-----------------------------|-------------|--|---------------------|----------|----------|----------------|
| <b>S.No.</b>                | <b>CODE</b> | <b>SUBJECT NAME</b>                        | <b>PERIODS/WEEK</b> |          |          | <b>CREDITS</b> |
|                             |             |  | <b>L</b>            | <b>T</b> | <b>P</b> |                |
| <b>CORE</b>                 |             |  |                     |          |          |                |
| 1.                          | CS111       | Advanced Data Structure                    | 3                   | 1        | 0        | 4              |
| 2.                          | CS112       | Advanced Computer Networks                 | 3                   | 1        | 0        | 4              |
| 3.                          | CS113       | Advanced Data Base Management System       | 3                   | 1        | 0        | 4              |
| 4.                          | CS114       | Advanced Computer Architecture             | 3                   | 1        | 0        | 4              |
| 5.                          | CS115       | Software Engineering and Quality Assurance | 3                   | 1        | 0        | 4              |
| 6.                          | CS116       | Digital Signal Processing                  | 3                   | 0        | 0        | 3              |
| 7.                          | CS111L      | Advanced Data Structure                    | 0                   | 0        | 2        | 1              |
| 8.                          | CS113L      | Advanced Data Base Management System       | 0                   | 0        | 2        | 1              |
| <b>Total Theory</b>         |             |  |                     |          |          | <b>23</b>      |
| <b>Total of Practical</b>   |             |  |                     |          |          | <b>2</b>       |
| <b>Total of Semester</b>    |             |  |                     |          |          | <b>25</b>      |



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SYLLABUS SCHEME FOR M.TECH (2020- 2022)

**SECOND SEMESTER**

| <b>A. THEORY/ PRACTICAL</b> |             |   |                     |          |          |                |
|-----------------------------|-------------|---|---------------------|----------|----------|----------------|
| <b>S.No.</b>                | <b>CODE</b> | <b>SUBJECT NAME</b>                       | <b>PERIODS/WEEK</b> |          |          | <b>CREDITS</b> |
|                             |             |   | <b>L</b>            | <b>T</b> | <b>P</b> |                |
| <b>CORE</b>                 |             |   |                     |          |          |                |
| 1.                          | CS121       | Distributed Operating Systems             | 3                   | 1        | 0        | 4              |
| 2.                          | CS122       | Cloud Computing                           | 3                   | 1        | 0        | 4              |
| 3.                          | CS123       | Artificial Intelligence & Neural Networks | 3                   | 1        | 0        | 4              |
| 4.                          | CS124       | Digital Image Processing                  | 3                   | 1        | 0        | 4              |
| 5.                          | CS125       | Research Methodologies in CSE             | 3                   | 1        | 0        | 4              |
| 6.                          | CS123L      | Artificial Intelligence & Neural Networks | 0                   | 0        | 2        | 1              |
| 7.                          | CS124L      | Digital Image Processing                  | 0                   | 0        | 2        | 1              |
| <b>Total of Theory</b>      |             |   |                     |          |          | <b>20</b>      |
| <b>Total of Practical</b>   |             |   |                     |          |          | <b>2</b>       |
| <b>Total of Semester</b>    |             |   |                     |          |          | <b>22</b>      |



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SYLLABUS SCHEME FOR M.TECH (2020- 2022)

**THIRD SEMESTER**

| <b>A. THEORY/ PRACTICAL</b> |             |                                   |                     |          |          |                |
|-----------------------------|-------------|-----------------------------------|---------------------|----------|----------|----------------|
| <b>S.No.</b>                | <b>CODE</b> | <b>SUBJECT NAME</b>               | <b>PERIODS/WEEK</b> |          |          | <b>CREDITS</b> |
|                             |             |                                   | <b>L</b>            | <b>T</b> | <b>P</b> |                |
| <b>CORE</b>                 |             |                                   |                     |          |          |                |
| 1.                          | CS211       | Network Security and Cryptography | 3                   | 1        | 0        | 4              |
| 2.                          | CS212       | Technical Seminar                 | 2                   | 0        | 0        | 2              |
| 3.                          | ELECTIVE    | Elective-I                        | 3                   | 0        | 0        | 3              |
| 4.                          | ELECTIVE    | Elective-II                       | 3                   | 0        | 0        | 3              |
| 5.                          | CS213       | Pre-Dissertation                  | 0                   | 0        | 16       | 8              |
| <b>Total of Theory</b>      |             |                                   |                     |          |          | <b>12</b>      |
| <b>Total of Practical</b>   |             |                                   |                     |          |          | <b>8</b>       |
| <b>Total of Semester</b>    |             |                                   |                     |          |          | <b>20</b>      |



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SYLLABUS SCHEME FOR M.TECH (2020- 2022)

**DEPARTMENTAL ELECTIVES (I & II) FOR 3RD SEMESTER**

**ELECTIVE I**

| <i>S.No.</i> | <i>CODE</i> | <i>SUBJECT NAME</i>                   | <i>L</i> | <i>T</i> | <i>P</i> | <i>CREDITS</i> |
|--------------|-------------|---------------------------------------|----------|----------|----------|----------------|
| 1            | CS214       | Advanced Micro Processors             | 3        | 0        | 0        | 3              |
| 2            | CS215       | Software Process & Project Management | 3        | 0        | 0        | 3              |
| 3            | CS216       | Data Warehouse and Mining             | 3        | 0        | 0        | 3              |
| 4            | CS217       | Network Administration                | 3        | 0        | 0        | 3              |
| 5            | CS218       | Data Analysis with Hadoop             | 3        | 0        | 0        | 3              |
| 6            | CS219       | Knowledge Base Expert System          | 3        | 0        | 0        | 3              |
| 7            | CS220       | Internet of Things                    | 3        | 0        | 0        | 3              |

**ELECTIVE II**

| <i>S.No.</i> | <i>CODE</i> | <i>SUBJECT NAME</i>                   | <i>L</i> | <i>T</i> | <i>P</i> | <i>CREDITS</i> |
|--------------|-------------|---------------------------------------|----------|----------|----------|----------------|
| 1            | CS221       | Simulation and Modeling               | 3        | 0        | 0        | 3              |
| 2            | CS222       | Wireless Mobile Adhoc Networks        | 3        | 0        | 0        | 3              |
| 3            | CS223       | Web Technologies                      | 3        | 0        | 0        | 3              |
| 4            | CS224       | Software Quality, Assurance & Testing | 3        | 0        | 0        | 3              |
| 5            | CS225       | Data Base Administration              | 3        | 0        | 0        | 3              |
| 6            | CS226       | Machine Learning                      | 3        | 0        | 0        | 3              |



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**SYLLABUS SCHEME FOR M.TECH (2020- 2022)**

**FOURTH SEMESTER**

| <b>A. THEORY/PRACTICAL</b> |              |                                    |                     |          |           |                |
|----------------------------|--------------|------------------------------------|---------------------|----------|-----------|----------------|
| <b>S.No.</b>               | <b>CODE</b>  | <b>SUBJECT NAME</b>                | <b>PERIODS/WEEK</b> |          |           | <b>CREDITS</b> |
|                            |              |                                    | <b>L</b>            | <b>T</b> | <b>P</b>  |                |
| <b>CORE</b>                |              |                                    |                     |          |           |                |
| <b>1.</b>                  | <b>CS227</b> | <b>Pre-Submission Presentation</b> | <b>3</b>            | <b>0</b> | <b>0</b>  | <b>3</b>       |
| <b>2.</b>                  | <b>CS228</b> | <b>Final Dissertation</b>          | <b>0</b>            | <b>0</b> | <b>48</b> | <b>24</b>      |
| <b>Total of Theory</b>     |              |                                    |                     |          |           | <b>3</b>       |
| <b>Total of Practical</b>  |              |                                    |                     |          |           | <b>24</b>      |
| <b>Total of Semester</b>   |              |                                    |                     |          |           | <b>27</b>      |