

**Syllabus for M. Tech. in Information Technology (in-house)**  
**(Effective from academic session 2019-20)**

**Curriculum Structure**

**M. Tech Sem-I.**

| Code                             | Course Title  | Hours per week |   |   | Credits |
|----------------------------------|---|----------------|---|---|---------|
|                                  |   | L              | T | P |         |
| PGIT-101                         | Program Core I-<br>Mathematical foundations of<br>Computer Science  | 3              | 0 | 0 | 3       |
| PGIT-102                         | Program Core II-<br>Advanced Data<br>Structures   | 3              | 0 | 0 | 3       |
| PGIT-<br>103A/103B/1<br>03C      | Program Elective I-<br>Advanced Web Technology/ Data<br>Science/Mobile Communication                            | 3              | 0 | 0 | 3       |
| PGIT-<br>104A/104B/1<br>04C/104D | Program Elective II- Internet of<br>Things/ Machine Learning/Social<br>Network Analysis/Information<br>Security | 3              | 0 | 0 | 3       |
| PGIT-105                         | Research Methodology and IPR  | 2              | 0 | 0 | 2       |
| PGIT-<br>106A/106B/1<br>06C/106D | Audit Course  | 2              | 0 | 0 | 0       |
| PGIT-192                         | Laboratory 1 (Advanced Data<br>Structures)  | 0              | 0 | 4 | 2       |
| PGIT-<br>193A/193B/1<br>93C      | Laboratory 2 (Based on Elective 1)  | 0              | 0 | 4 | 2       |
| PGIT-<br>194A/194B/1<br>94C      | Laboratory 3 (Based on Elective II)   | 0              | 0 | 4 | 2       |
| <b>Total Credits: 20</b>         |   |                |   |   |         |

**M. Tech Sem- II**

| Code                                  | Course Title   | Hours per week |   |   | Credits |
|---------------------------------------|--|----------------|---|---|---------|
|                                       |  | L              | T | P |         |
| PGIT-201                              | Program Core III<br>– Advanced Computer Architecture   | 3              | 0 | 0 | 3       |
| PGIT-202                              | Program Core IV –<br>Advanced Operating<br>System  | 3              | 0 | 0 | 3       |
| PGIT-<br>203A/203B/20<br>3C/203D/203E | Program Elective III –<br>Cloud Computing/ Image Processing/<br>Soft Computing/Data Warehousing and<br>Data Mining/Wireless and Sensor<br>Networks | 3              | 0 | 0 | 3       |



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|                          |   |   |   |   |   |
|--------------------------|---|---|---|---|---|
| PGIT-204A/204B/204C/204D | Program Elective IV–<br>Distributed Systems / Big Data Analytics / Information Theory and Coding/ Pattern Recognition | 3 | 0 | 0 | 3 |
| PGIT- 205A/B/C/D         | Audit Course-2  | 2 | 0 | 0 | 0 |
| PGIT-292                 | Laboratory 1 (Advanced Operating System)  | 0 | 0 | 4 | 2 |
| PGIT-293A/B/C/D          | Laboratory 2 (Based on Elective III)  | 0 | 0 | 4 | 2 |
| PGIT-293                 | Term Paper with Seminar   | 0 | 0 | 4 | 2 |
| <b>Total Credits: 18</b> |   |   |   |   |   |

**\*Students be encouraged to go to Industrial Training/Internship for at least 2-3 months during semester break.**

**M.Tech III Sem\***

| Code                     | Course Title  | Hours per week |   |    | Credits |
|--------------------------|---|----------------|---|----|---------|
|                          |   | L              | T | P  |         |
| PGIT-301A/301B/301C      | Program Elective V –<br>Bio-informatics/ <b>Remote Sensing and GIS</b> / Distributed Databases/   | 3              | 0 | 0  | 03      |
| PGIT-302                 | <b>Open Elective</b><br>A. Business Analytics<br>B. Project Management & Entrepreneurship<br>C. Industrial Safety<br>D. Operations Research<br>E. Cost Management of Engineering Projects<br>F. Composite Materials<br>G. Waste to Energy | 3              | 0 | 0  | 03      |
| PGIT-393                 | Dissertation-I /Industrial Project  | 0              | 0 | 20 | 10      |
| <b>Total Credits: 16</b> |   |                |   |    |         |

**\*Students going for Industrial Project/Thesis will complete these courses through MOOCs.**

**M. Tech Sem-IV**

|                          | Course Title    | Hours per week |   |    | Credits |
|--------------------------|-----------------|----------------|---|----|---------|
|                          |                 | L              | T | P  |         |
| PGIT-491                 | Dissertation II | 0              | 0 | 32 | 16      |
| <b>Total Credits: 16</b> |                 |                |   |    |         |



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**Audit course 1 & 2**

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.