# **M.Tech. Computer Science and Engineering 2020-21**

**(Specialization offered in Data Science/ Cyber Security and Forensics)**

|  |  |  |  |  |  |  |  |  |  |  |
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| **Sem** | **Subject 1** | **Subject 2** | **Subject 3** | **Subject 4** | **Subject 5** | **L** | **T** | **P** | **Weekly Contact Hours** | **Credits** |
| I | CSL501  Mathematical Foundations of Computer Science  3-0-0 (3) | CSL535  Advanced Data Structure  2-0-2 (3) | PE-1  2-0-2 (3) | OE-1  2-0-2 (3) | PE-2  2-0-2 (3) | 11 | 0 | 8 | 19 | 15 |
| II | CSL502  Advanced Algorithms  2-0-2 (3) | CSL534  Programming  Course  3-0-2 (4) | OE-2  2-0-2 (3) | MAL606  Research Methodology  2-1-0 (3) | PE-3  2-0-2 (3) | 11 | 1 | 8 | 20 | 16 |
| III | PE-4  2-0-2 (3) | PE-5  2-0-2 (3) | CSC602  Seminar  0-0-2 (1) | CSD601  Dissertation-I  0-0-8 (4) |  | 4 | 0 | 14 | 18 | 11 |
| IV | CSD602  Dissertation-II  0-0-24 (12) | PE-6  2-0-2 (3) |  |  |  | 2 | 0 | 26 | 28 | 15 |
| **Total Credits of the Programme: 57** | | | | | | | | | | |

\*PE – Programme Elective \* OE – Open Elective

## **Specialization Electives (PE)**

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| Data Science Specialization | Cyber Security Specialization |
| * Analytic Databases | * **Applied Cryptography** |
| * Machine Learning for Data Science | * **Cyber Security** |
| * Cloud Computing | * **Intrusion Detection and Prevention System** |
| * Text and Web Intelligence Analytics | * **Risk Management Policies and Principles** |
| * Big Data Analytics | * **Digital Forensics** |
| * Media Analytics | * **Security in Distributed System** |
| * Spatial and Temporal Data Analytics | * **Secure Coding and Software Vulnerability Lab** |
| * Social Media Analytics | * **Reverse Engineering and Malware Analysis** |