**Syllabus to be implemented from the Academic Year 2014-15**

**M.Tech. (Computer Science & Engineering)**

**First Year First Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No: | Paper Code | Paper Name | Class Hours | | | Credit |
| **Theory** | L | T | P | Cr. Pt. |
| 1 | MCSE101 | Advanced Engineering Mathematics [Compulsory] | 3 | 1 | 0 | 4 |
| 2 | MCSE102 | Advanced Operating System [Compulsory] | 4 | 0 | 0 | 4 |
| 3 | MCSE103 | Advanced Computer Architecture [Compulsory] | 4 | 0 | 0 | 4 |
| 4 | MCSE104 | Advanced Algorithms [Compulsory] | 4 | 0 | 0 | 4 |
| 5 | MCSE105 | Elective – I  A) Artificial Neural Networks  B) Agent Based Intelligent Systems  C) Advanced Soft Computing  D) Object Oriented Information System Design  E) Software Engineering & CASE tools  F) Computer Graphics & Multimedia | 4 | 0 | 0 | 4 |
|  |  | **Total** | 19 | 1 | 0 | **20** |
|  | | **Practical** |  | | | |
| 6 | MCSE191 | Operating System Laboratory [Compulsory] | 0 | 0 | 3 | 2 |
| 7 | MCSE192 | A) Advanced Programming Lab | 0 | 0 | 3 | 2 |
|  |  | **Total** | 0 | 0 | 6 | **4** |
|  | | **Seminar** |  | | | |
| 8 | MCSE181 | Seminar – Based on literature survey | 0 | 2 | 0 | **1** |
|  | | **Total** | 19 | 3 | 6 | **25** |

**First Year Second Semester\_CSE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No: | Paper Code | Paper Name | Class Hours | | | Credit |
|  |  | **Theory** | L | T | P |  |
| 1 | MCSE201 | Advanced DBMS [Compulsory] | 4 | 0 | 0 | 4 |
| 2 | MCSE202 | Advanced Computer Network & Security [Compulsory] | 4 | 0 | 0 | 4 |
| 3 | MCSE203 | Theory of Computation [ Compulsory] | 4 | 0 | 0 | 4 |
| 4 | MCSE204 | Elective - I I  A) Cluster, Grid and Cloud Computing  B) Mobile Computing  C) Advanced Web Technology  D) Soft Computing  E) Cryptography & Computer Security | 4 | 0 | 0 | 4 |
| 5 | MCSE205 | Elective – III  A) Image Processing  B) Pattern Recognition  C) Real-time Embedded Systems & Programming  D) Complex Systems  E) Distributed System Principle | 4 | 0 | 0 | 4 |
|  |  | **Total** | 20 | 0 | 0 | **20** |
|  | | **Practical** |  | | | |
| 6 | MCSE291 | Computer Networking & DBMS Laboratory [Compulsory] | 0 | 0 | 3 | 2 |
|  |  | **Total** | 0 | 0 | 3 | **2** |
|  | | **Seminar & Viva** |  | | | |
| 7 | MCSE281 | Seminar – Term Paper Leading To Thesis | 0 | 2 | 0 | 1 |
| 8 |  |  |  |  |  |  |
|  | | **Total** | 20 | 2 | 6 | **23** |

**Second Year 3rd Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No: | Paper Code | **Paper Name** | Class Hours | | | Credit |
| **Theory** | L | T | P |  |
| 1 | MCSE301 | Teaching & Research Methodologies | 4 | 0 | 0 | 4 |
| 2 | MCSE302 | Elective – IV  A) Human Computer Interaction  B) Bioinformatics  C) Data Mining & Data Ware Housing  D) Compiler Construction  E) VLSI Design | 4 | 0 | 0 | 4 |
|  |  | **Total** | 8 | 0 | 0 | **8** |
|  | | **Project** |  | | | |
| 3 | MCSE381 | Project – Part 1  (Dissertation I + Defence of Project - I) | 0 | 0 | 18 | 12 |
|  | | **Total** | 8 | 0 | 18 | **20** |

**Second Year 4th Semester\_CSE**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sr. No  : | Paper Code | **Paper Name** | Class Hours | | | Credit | |
| **Project** | L | T | P |  | |
| 1 | MCSE481 | Project – Part 1I  (Dissertation II + Defence of Project - II) | 0 | 0 | 24 | 20 | |
| 2 | MCSE481 | Comprehensive Viva Voce |  |  |  | 20 | |
|  | | **Total** | 0 | 0 | 24 | | **20** |