

DAYANANDA SAGAR UNIVERSITY

Shavige Malleshwara Hills, Kumaraswamy Layout,
Bengaluru - 560111, Karnataka.

SCHOOL OF ENGINEERING



SCHEME & SYLLABUS
FOR
MASTER OF TECHNOLOGY (M.Tech) – 2019
COMPUTER SCIENCE & ENGINEERING
SPECIALIZATION: COMPUTER SCIENCE AND
INFORMATION TECHNOLOGY
(With Effect from 2019-20)

SEMESTER I

| SL | PROGRAM CODE | COURSE CODE | COURSE TITLE | $\frac{CR}{AU}$ | SCHEME OF TEACHING | | | | | SCHEME OF EVALUATION | |
|--------------------------|--------------|-------------|--------------------------------------|-----------------|--------------------|-----------|-----------|----------|-----------|----------------------|------------|
| | | | | | L | T | P | S/P | C | CIA | END EXAM |
| 1 | 203 | 19CIT5101 | ADVANCED ALGORITHMS | CR | 03 | 01 | - | - | 04 | 50 | 50 |
| 2 | 203 | 19CIT5102 | WEB TECHNOLOGIES | CR | 03 | - | - | - | 03 | 50 | 50 |
| 3 | 203 | 19CIT5103 | VIRTUALIZATION & CLOUD COMPUTING | CR | 03 | - | - | - | 03 | 50 | 50 |
| 4 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE – I | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 5 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE – II | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 6 | 203 | 19CIT5171 | WEB TECHNOLOGIES LAB | CR | - | - | 04 | - | 02 | 50 | 50 |
| 7 | 203 | 19CIT5172 | VIRTUALIZATION & CLOUD COMPUTING LAB | CR | - | - | 04 | - | 02 | 50 | 50 |
| GRAND TOTAL = 700 | | | | | 15 | 01 | 12 | - | 22 | 350 | 350 |

SEMESTER II

| SL | PROGRAM CODE | COURSE CODE | COURSE TITLE | $\frac{CR}{AU}$ | SCHEME OF TEACHING | | | | | SCHEME OF EVALUATION | |
|--------------------------|--------------|-------------|--------------------------------------|-----------------|--------------------|----------|-----------|----------|-----------|----------------------|------------|
| | | | | | L | T | P | S/P | C | CIA | END EXAM |
| 1 | 203 | 19CIT5201 | DISTRIBUTED COMPUTING SYSTEMS | CR | 03 | - | - | - | 03 | 50 | 50 |
| 2 | 203 | 19CIT5202 | CLOUD ARCHITECTURE | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 3 | 203 | 19CIT5203 | ADVANCED DATABASE MANAGEMENT SYSTEMS | CR | 03 | - | - | - | 03 | 50 | 50 |
| 4 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE – III | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 5 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE – IV | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 6 | 203 | 19CIT5271 | DISTRIBUTED COMPUTING SYSTEMS LAB | CR | - | - | 04 | - | 02 | 50 | 50 |
| 7 | 203 | 19CIT5272 | DBMS LAB | CR | - | - | 04 | - | 02 | 50 | 50 |
| GRAND TOTAL = 700 | | | | | 15 | - | 14 | - | 22 | 350 | 350 |

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,
CIA – CONTINUOUS INTERNAL ASSESSMENT

SEMESTER III

| SL | PROGRAM CODE | COURSE CODE | COURSE TITLE | $\frac{CR}{AU}$ | SCHEME OF TEACHING | | | | | SCHEME OF EVALUATION | |
|--------------------------|--------------|-------------|-------------------------|-----------------|--------------------|----------|-----------|----------|-----------|----------------------|------------|
| | | | | | L | T | P | S/P | C | CIA | END EXAM |
| 1 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE - V | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 2 | 203 | 19MOE53XX | OPEN ELECTIVE | CR | 03 | - | - | - | 03 | 50 | 50 |
| 3 | 203 | 19CIT5381 | DISSERTATION | CR | - | - | 06 | - | 03 | 50 | 50 |
| GRAND TOTAL = 300 | | | | | 06 | - | 08 | - | 10 | 150 | 150 |

SEMESTER IV

| SL | PROGRAM CODE | COURSE CODE | COURSE TITLE | $\frac{CR}{AU}$ | SCHEME OF TEACHING | | | | | SCHEME OF EVALUATION | |
|--------------------------|--------------|-------------|--------------------------|-----------------|--------------------|----------|-----------|----------|-----------|----------------------|------------|
| | | | | | L | T | P | S/P | C | CIA | END EXAM |
| 1 | 203 | 19CIT5XXX | DEPARTMENT ELECTIVE - VI | CR | 03 | - | 02 | - | 04 | 50 | 50 |
| 2 | 203 | 19CIT5481 | DISSERTATION | CR | - | - | 12 | - | 06 | 150 | 150 |
| GRAND TOTAL = 400 | | | | | 03 | - | 14 | - | 10 | 200 | 200 |

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,
CIA – CONTINUOUS INTERNAL ASSESSMENT

DEPARTMENTAL ELECTIVES – I/II/III/IV

| SL | COURSE CODES | COURSE TITLE |
|-----------|---------------------|--|
| 1 | 19CIT5031 | ADVANCED COMPUTER NETWORKS |
| 2 | 19CIT5032 | ADVANCED OS |
| 3 | 19CIT5033 | SOFTWARE ARCHITECTURE |
| 4 | 19CIT5034 | PROBABILITY & STATISTICS FOR ANALYTICS |
| 5 | 19CIT5035 | DATA MINING |
| 6 | 19CIT5036 | MACHINE LEARNING & AI |
| 7 | 19CIT5037 | ENTERPRISE DATA MANAGEMENT |
| 8 | 19CIT5038 | CLOUD STORAGE |
| 9 | 19CIT5039 | MOBILE COMPUTING |
| 10 | 19CIT5040 | DATA ANALYTICS & VISUALIZATION |
| 11 | 19CIT5041 | FORMAL METHODS IN SOFTWARE ENGINEERING |
| 12 | 19CIT5042 | HIGH PERFORMANCE COMPUTING |

DEPARTMENTAL ELECTIVES – V/VI

| SL | COURSE CODES | COURSE TITLE |
|-----------|---------------------|----------------------------------|
| 1 | 19CIT5061 | CLOUD NETWORKING & SECURITY |
| 2 | 19CIT5062 | INTERNET OF THINGS |
| 3 | 19CIT5063 | SOFT COMPUTING |
| 4 | 19CIT5064 | ENTERPRISE CLOUD COMPUTING |
| 5 | 19CIT5065 | PRODUCT DEVELOPMENT & MANAGEMENT |
| 6 | 19CIT5066 | AGILE SOFTWARE DEVELOPMENT |
| 7 | 19CIT5067 | STORAGE AREA NETWORKS |

OPEN ELECTIVES

| SL | COURSE CODE | COURSE TITLE | OFFERING DEPARTMENT |
|-----------|--------------------|-------------------------------|---|
| 1 | 19MOE5301 | DIGITAL MARKETING | COMPUTER SCIENCE & ENGINEERING |
| 2 | 19MOE5302 | PRODUCT LIFE CYCLE MANAGEMENT | MECHANICAL ENGINEERING |
| 3 | 19MOE5303 | PROJECT MANAGEMENT | ELECTRONICS & COMMUNICATION ENGINEERING |