#### MCA SEMESTER-IV

| Code | Subject           |
|------|-------------------|
| 4101 | Project           |
| 4102 | Swayam based MOOC |

| Names of Elective-I      |
|--------------------------|
| Digital Image Processing |
| Ethical hacking          |
| IOT                      |
| Game theory              |
| Block Chain              |

| Names of Elective-II  |
|-----------------------|
| Soft Computing        |
| GIS                   |
| Cyber Physical System |
| NLP                   |
| Big Data Analytics    |

#### **Maharshi Karve Stree Shikshan Samstha's**

# K. B. JOSHI INSTITUTE OF INFORMATION TECHNOLOGY, PUNE



(Approved by Govt. of Maharashtra, \*NAAC Accredited\*)
(Approved by AICTE, New Delhi Affiliated to S.N.D.T. Women's University, Mumbai)

Rama Purushottam Vidya Sankul, 5<sup>th</sup> Floor, Karvenagar, Pune-411052.

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Master of
Computer
Applications
(MCA)

DTE CODE-6971 Choice Code 697124150

8767954498/9322280587

Rama Purushottam Vidya Sankul, 5<sup>th</sup> Floor, Karvenagar, Pune-52.

### **ELIGIBILITY**

- (i) The candidate should be an Indian National;
- (ii) Passed BCA or Bachelor Degree in Computer Science Engineering or equivalent Degree and obtained at least 50% marks in aggregate (at least 45% in case of candidates of Backward Class categories, economically weaker section and Persons with Disability category belonging to Maharashtra State); Or
- (ii) Passed B.Sc. or B.Com. or B.A. with Mathematics at 10+2 Level or at Graduation Level (with additional bridge Courses as per the norms of the concerned University) and obtained at least 50% marks in aggregate (at least 45% in case of candidates of Backward Class categories, economically weaker section and Persons with Disability category belonging to Maharashtra State); (Candidates appearing for final year of qualifying examination are also eligible to appear for CET)

## **Job Opportunities**

- Full stack developer
- Testing Professional
- System Analyst
- Software Application Architect
- Software Consultant
- Hardware Engineer
- Technical Writer
- Systems Developer/Engineer
- Web Designer and Developer
- Subject Matter Expert (SME)
- Entrepreneur



### **SYLLABUS**

#### MCA SEMESTER-I

| Code | Subject  |
|------|--|
| 1101 | Mathematical Foundation of Computer cience                     |
| 1102 | Research Methodology and IPR                                   |
| 1103 | Advanced Data Structure  |
| 1104 | Advanced Java (Contents: spring, MVC, Net Beans and Hibernate) |
| 1105 | Computer Network Programming using Linux                       |
| 1201 | Advanced Data Structure Lab                                    |
| 1202 | Advanced Java lab  |

#### MCA SEMESTER-II

| Code | Subject   |
|------|---|
| 2101 | Managerial Economics                                  |
| 2102 | Software Architecture                                 |
| 2103 | Artificial Intelligence                               |
| 2104 | Advanced Databases                                    |
| 2105 | Elective-I  |
| 2201 | Web Engineering Lab                                   |
|      | (Contents: CSS, Angular js, node js, Ph P,Mysql,etc ) |
| 2202 | Software Testing and Quality Assurance Lab            |
| 2203 | Mobile Computing lab                                  |
| 2204 | Artificial Intelligence Lab                           |
| 2205 | Advanced Databases Lab                                |
| 2206 | Research paper II - Research Mini Project             |

### MCA SEMESTER-III

| Code | Subject  |
|------|--|
| 3101 | Cyber Security   |
| 3102 | Data science and Analytics   |
| 3103 | Cloud Computing  |
| 3104 | Machine learning   |
| 3105 | Elective-II  |
| 3201 | Data science and Analytics lab                                     |
|      | (Content: Implementation using Python)                             |
| 3202 | Cloud computing Lab  |
| 3203 | Elective-II Lab  |
| 3204 | Machine learning lab   |
| 3205 | Research Paper III- Presentation / Publication (Content: Technical |
|      | communication for Research Paper Writing,                          |
|      | Rubrics for evaluation)  |