



| VISION | MISSION |
|--|--|
| To be recognized as a centre of excellence in the field of Information Technology where inquisitive minds of students are fostered, leading to skills professionals for satisfying the needs of society. | <ol style="list-style-type: none"> 1. Apply knowledge of engineering fundamentals & cutting-edge technology to identify and implement innovative solutions for engineering problems and issue in society at large. 2. Build strong interpersonal skills and will engage in life-long learning to enhance their career positions, both as team members and leaders. |

3rd Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|---|-----------------|----------|-----------|-------------------|------------|------------|-------------|-----------|
| | | | | L | T/A | P | CA | MSE | ESE | Total | |
| 1 | PCC | IT3T001 | Data Structures through Python | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 2 | PCC | IT3T002 | Computer Networks | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 3 | PCC | IT3T003 | Operating Systems & Virtualizations | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 4 | PCC | IT3T004 | Organization Behavior | 2 | 0 | 0 | 10 | 15 | 25 | 50 | Audit |
| 5 | MDM | IT3M001 | Discrete Mathematics & Statistical Analysis | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 6 | OEC | IT3O001 | Open Elective-1 | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 7 | EEMC | IT3E001 | Entrepreneurship Development | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 8 | VEC | IT3V001 | Universal Human Values-II | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 9 | PCC | IT3L004 | Data Structures through Python Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 10 | PCC | IT3L005 | Computer Networks Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 11 | PCC | IT3L006 | Web Development Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 12 | CEP/FP | IT3F001 | Comm. Engg. Project | 0 | 0 | 4 | 30 | - | 20 | 50 | 2 |
| | | | | 20 | 0 | 10 | 360 | 155 | 585 | 1100 | 23 |

4th Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|--|-----------------|----------|----------|-------------------|------------|------------|-------------|-----------|
| | | | | L | T | P | CA | MSE | ESE | Total | |
| 1 | PCC | IT4T001 | Automata Theory & Compiler Design | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 2 | PCC | IT4T002 | Analysis & Design Algorithms | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 3 | PCC | IT4T003 | Java Programming | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 4 | MDM | IT4M002 | Linear Algebra and Transform | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 5 | OEC | IT4O001 | OE-2 | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 6 | VSEC | IT4L001 | Data Storage Technologies & Networking | 0 | 0 | 4 | 60 | - | 40 | 100 | 2 |
| 7 | AEC | IT4A001 | Principle of Corporate Success | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 8 | EEMC | IT4E001 | Engineering Economics | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 9 | VEC | IT4V001 | Intellectual Property Rights | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 10 | PCC | IT4L004 | Analysis & Design Algorithms Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 11 | PCC | IT4L005 | Java Programming Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 12 | PCC | IT4L006 | R Programming Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| | | | | 19 | 0 | 4 | 220 | 160 | 520 | 1200 | 24 |



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5th Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|---|-----------------|----------|-----------|-------------------|------------|------------|-------------|-----------|
| | | | | L | T | P | CA | MSE | ESE | Total | |
| 1 | PCC | IT5T001 | DBMS | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 2 | PCC | IT5T002 | Artificial Intelligence | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 3 | PCC | IT5T003 | Cyber Security & Cryptography | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 4 | PEC | IT5E001 | PEC-I | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 5 | PEC | IT5E002 | PEC-II | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 6 | MDM | IT5M003 | Digital Electrical & Electronics Components | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 7 | MDM | IT5M004 | Microprocessor & it's Application | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 8 | OEC | IT5O003 | OE-3 | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 9 | PCC | IT5L004 | Artificial Intelligence Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 10 | PCC | IT5L005 | DBMS Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 11 | PCC | IT5L006 | Cyber Security & Cryptography Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 12 | Internship | IT5I001 | Internship-I | 0 | 0 | 4 | 60 | - | 40 | 100 | 2 |
| | | | | 18 | 0 | 10 | 400 | 160 | 640 | 1200 | 23 |

6th Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|--|-----------------|----------|-----------|-------------------|------------|------------|-------------|-----------|
| | | | | L | T | P | CA | MSE | ESE | Total | |
| 1 | PCC | IT6T001 | Machine Learning | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 2 | PCC | IT6T002 | Cloud Computing and Storage Management | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 3 | PCC | IT6T003 | Embedded System & IoT | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 4 | PEC | IT6E003 | PEC-III | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 5 | PEC | IT6E004 | PEC-IV | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 6 | PEC | IT6E005 | PEC-V | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 7 | MDM | IT6M005 | Adhoc Wireless Sensor Networks | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 8 | MDM | IT6M006 | Digital and Mobile Forensics | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 9 | VSEC | IT6L002 | Full Stack Development | 0 | 0 | 4 | 60 | - | 40 | 100 | 2 |
| 10 | PCC | IT6L004 | Multimedia and Animation Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 11 | PCC | IT6L005 | Machine Learning Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 12 | PCC | IT6L006 | Embedded System & IoT Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| | | | | 18 | 0 | 10 | 400 | 160 | 640 | 1200 | 23 |

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MISSION

1. Apply knowledge of engineering fundamentals & cutting-edge technology to identify and implement innovative solutions for engineering problems and issue in society at large.
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7th Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|---------------------------------|-----------------|----------|-----------|-------------------|------------|------------|-------------|-----------|
| | | | | L | T | P | CA | MSE | ESE | Total | |
| 1 | PCC | IT7T001 | Natural Language Processing | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 2 | PCC | IT7T002 | Software Testing and Automation | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 3 | PCC | IT7T003 | Data Science and Analytics | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 4 | PEC | IT7E006 | PEC-VI | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 5 | PEC | IT7E007 | PEC-VII | 3 | 0 | 0 | 20 | 20 | 60 | 100 | 3 |
| 6 | MDM | IT7M007 | Human Computer Interface | 2 | 0 | 0 | 20 | 20 | 60 | 100 | 2 |
| 7 | PCC | IT7L004 | Deep Learning Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 8 | PCC | IT7L005 | Natural Language Processing Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 9 | PCC | IT7L006 | No SQL Data Bases Lab | 0 | 0 | 2 | 60 | - | 40 | 100 | 1 |
| 10 | PROJECT | IT7P001 | PROJECT PHASE-1 | 0 | 0 | 4 | 50 | - | 50 | 100 | 2 |
| 11 | INTERNSHIP | IT7I002 | INTERNSHIP-II | 0 | 0 | 4 | 50 | - | 50 | 100 | 2 |
| | | | | 14 | 0 | 14 | 400 | 120 | 580 | 1100 | 21 |

8th Semester Information Technology

| Sr. No. | Category of Subject | Course Code | Course Name | Teaching Scheme | | | Evaluation Scheme | | | | Credit |
|---------|---------------------|-------------|------------------|-----------------|----------|----------|-------------------|----------|------------|------------|-----------|
| | | | | L | T | P | CA | MSE | ESE | Total | |
| 1 | PROJECT | IT8P002 | PROJECT PHASE-II | 0 | 0 | 4 | 60 | - | 40 | 100 | 2 |
| 2 | OJT | IT8I003 | Internship-III | 0 | 0 | 4 | 180 | - | 120 | 300 | 8 |
| | | | | 0 | 0 | 8 | 240 | 0 | 160 | 400 | 10 |



JAIDEV EDUCATION SOCIETY'S
J D COLLEGE OF ENGINEERING AND MANAGEMENT
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 Website: www.jdcoem.ac.in E-mail: info@jdcoem.ac.in
 (An Autonomous Institute, with NAAC "A" Grade)
 Affiliated to DBATU, RTMNU & MSBTE Mumbai
 Department of Information Technology
 "Progress Beyond Excellence"
 2023-24



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Professional Elective Courses

| | |
|----|--|
| 1 | Semantic Web |
| 2 | Blockchain |
| 3 | Augmented Reality/Virtual Reality |
| 4 | Computational Intelligence |
| 5 | Big Data Analytic Technique |
| 6 | Advanced Computer Vision |
| 7 | AWS Cloud Techniques |
| 8 | Quantum Computing |
| 9 | Distributed Computing |
| 10 | Advanced Database System |
| 11 | TCP/IP |
| 12 | Data Handling and Visualization |
| 13 | Cluster Computing |
| 14 | Reinforcement Learning |
| 15 | Soft Computing |
| 16 | Pattern Recognition |
| 17 | Web Security |
| 18 | Interactive Media Development |
| 19 | Scripting Languages |
| 20 | DevOps |
| 21 | Computer Vision and Robotics |
| 22 | Fuzzy Logics and Genetic Algorithms |
| 23 | Web and Social Media Analytics |
| 24 | Mobile Application Development |
| 25 | Cryptography and Network Security |
| 26 | Privacy Preserving in Data Mining |
| 27 | Salesforce |
| 28 | Mining Massive Datasets |
| 29 | Database Security |
| 30 | Ad hoc and Sensor Networks |
| 31 | Storage Area Networks |
| 32 | Unix Shell Programming |
| 33 | MERN Stack-I(MongoDB, Express, React and Node.js.) |
| 34 | MEAN Stack-II(MongoDB, Express, Angular and Node.js.) |

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| Open Elective |
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| Application of Physics for Engineering |
| Physics of Engineering materials |
| Probability of Random Variable |
| Abstract Algebra |
| Graph Theory |
| Mathematical Transforms |
| Empires of India |
| History of Indian Independence |
| Vedic Maths |
| Stress Management |
| Predicting Modelling & analytics |

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|---------------------------------------|
| Elements of Earthquake |
| Metro System and Engineering |
| Smart City |
| Disaster Management |
| Waste Water Management |
| Natural Resource Management |
| Energy Conservation |
| Ethics in IT |
| Ethical Hacking |
| E – Waste Management |
| Domestic Equipment Naintence |
| Value Engineering |
| Solar Technology |
| Industry 4.0 |
| Fundamental of industrial Engineering |

| |
|----------------------------|
| Principles of Management |
| Project Management |
| Consumer Behaviour |
| Human Resource Management |
| Social Economics |
| Financial Management |
| Fundamentals of Investment |
| Digital Marketing |
| E-business |
| Business analytics |
| Cyber Law & Cyber Crime |