

COURSE STRUCTURE AND SYLLABUS

For

CIVIL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

PRINCIPAL

SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

I Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-ES | Engineering Chemistry | 4 | -- | -- | 3 |
| 4-BS | Engineering Mechanics | 4 | 2 | -- | 3 |
| 5-BS | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Environmental Studies | 4 | -- | -- | 3 |
| 7-HS | Engineering /Applied Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-BS | English - Communication Skills Lab - I | -- | -- | 3 | 2 |
| 9-ES | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 3-BS | Mathematics – III | 4 | -- | -- | 3 |
| 4-ES | Engineering Physics | 4 | -- | -- | 3 |
| 5-HS | Elements of Mechanical Engineering | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-BS | English - Communication Skills Lab - II | -- | -- | 3 | 2 |
| 8-HS | Engineering /Applied Physics Lab | -- | -- | 3 | 2 |
| 9-ES | Engineering / Applied Physics – Virtual Labs - Assignments | -- | -- | 2 | -- |
| 10 | Engg. Workshop & IT Workshop | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

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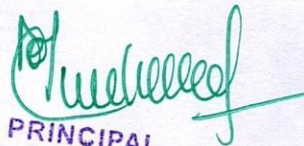
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II Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------------|----|----|----|-----------|
| 1 | Probability & Statistics | 4 | -- | -- | 3 |
| 2 | Basic Electrical & Electronics Engineering | 4 | -- | -- | 3 |
| 3 | Strength of Materials-I | 4 | -- | -- | 3 |
| 4 | Building Materials & Construction | 4 | -- | -- | 3 |
| 5 | Surveying | 4 | -- | -- | 3 |
| 6 | Fluid Mechanics | 4 | -- | -- | 3 |
| 7 | Survey Field Work - I | -- | -- | 3 | 2 |
| 8 | Strength of Materials Lab | -- | -- | 3 | 2 |
| MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 22 |

II Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------|----|----|----|-----------|
| 1 | Building Planning & Drawing | 4 | -- | -- | 3 |
| 2 | Strength of Materials - II | 4 | -- | -- | 3 |
| 3 | Hydraulics & Hydraulic Machinery | 4 | -- | -- | 3 |
| 4 | Concrete Technology | 4 | -- | -- | 3 |
| 5 | Structural Analysis - I | 4 | -- | -- | 3 |
| 6 | Transportation Engineering - I | 4 | -- | -- | 3 |
| 7 | FM & HM Lab | -- | -- | 3 | 2 |
| 8 | Survey Field Work - II | -- | -- | 3 | 2 |
| MC | Managerial Economics & Financial Analysis | 2 | -- | -- | -- |
| Total Credits | | | | | 22 |

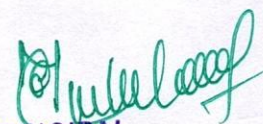

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III Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------------|----|----|----|-----------|
| 1 | Management Science | 4 | -- | -- | 3 |
| 2 | Engineering Geology | 4 | -- | -- | 3 |
| 3 | Structural Analysis -II | 4 | -- | -- | 3 |
| 4 | Design & Drawing of Reinforced Concrete Structures | 4 | 2 | -- | 3 |
| 5 | Transportation Engineering - II | 4 | -- | -- | 3 |
| 6 | Concrete Technology Lab | -- | -- | 3 | 2 |
| 7 | Geology Lab | -- | -- | 3 | 2 |
| 8 | Transportation Engineering Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 21 |

III Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Design & Drawing of Steel Structures | 4 | 2 | -- | 3 |
| 2 | Geotechnical Engineering - I | 4 | -- | -- | 3 |
| 3 | Environmental Engineering -I | 4 | -- | -- | 3 |
| 4 | Water Resource Engineering -I | 4 | -- | -- | 3 |
| 5 | OPEN ELECTIVE i. Electronic Instrumentation ii. Data Base Management Systems iii. Alternative Energy Sources iv. Waste water Management v. Fundamentals of Liquefied Natural Gas vi. Green Fuel Technologies | 4 | -- | -- | 3 |
| 6 | Geotechnical Engineering Lab | -- | -- | 3 | 2 |
| 7 | Environmental Engineering Lab | -- | -- | 3 | 2 |
| 8 | Computer Aided Engineering Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 21 |


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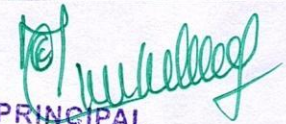
IV Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|---------------------------------|---------------------------------------------------|----|----|----|-----------|
| 1 | Environmental Engineering - II | 4 | -- | -- | 3 |
| 2 | Water Resource Engineering - II | 4 | -- | -- | 3 |
| 3 | Geotechnical Engineering - II | 4 | -- | -- | 3 |
| 4 | Remote Sensing & GIS Applications | 4 | -- | -- | 3 |
| 5 | Elective I | 4 | -- | -- | 3 |
| | i. Finite Element Methods | | | | |
| | ii. Ground Improvement Techniques | | | | |
| | iii. Air Pollution & Control | | | | |
| | iv. Urban Hydrology | | | | |
| v. Traffic Engineering | | | | | |
| 6 | Elective II | 4 | -- | -- | 3 |
| | i. Advanced Structural Engineering | | | | |
| | ii. Advanced Foundation Engineering | | | | |
| | iii. Environmental Impact Assessment & Management | | | | |
| | iv. Ground Water Development | | | | |
| v. Pavement Analysis and Design | | | | | |
| 7 | IPR & Patents | -- | 2 | -- | -- |
| 8 | GIS & CAD Lab | -- | -- | 2 | 2 |
| 9 | Irrigation Design & Drawing | -- | -- | 2 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|---------------------------------------|-------------------------------------------|----|----|----|-----------|
| 1 | Estimation Specification & Contracts | 4 | -- | -- | 3 |
| 2 | Construction Technology & Management | 4 | -- | -- | 3 |
| 3 | Prestressed Concrete | 4 | -- | -- | 3 |
| 4 | Elective III | 4 | -- | -- | 3 |
| | i. Bridge Engineering | | | | |
| | ii. Soil Dynamics and Foundations | | | | |
| | iii. Solid and Hazardous Waste Management | | | | |
| | iv. Water Resources Systems Planning | | | | |
| v. Urban Transportation Planning Engg | | | | | |
| 5 | Seminar on Internship Project | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |

Total Course Credits = 48+44 + 42 + 46 = 180


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KAKINADA - 533 003, Andhra Pradesh, India

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I Year – I Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-ES | Applied Chemistry | 4 | -- | -- | 3 |
| 4-BS | Engineering Mechanics | 4 | -- | -- | 3 |
| 5-BS | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Environmental Studies | 4 | -- | -- | 3 |
| 7-HS | Applied / Engineering Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-BS | English- Communication Skills Laboratory - I | -- | -- | 3 | 2 |
| 9-ES | Computer Programming Laboratory | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year – II Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 3-BS | Mathematics – III | 4 | -- | -- | 3 |
| 4-ES | Applied Physics | 4 | -- | -- | 3 |
| 5 | Electrical Circuit Analysis - I | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-BS | English - Communication Skills Laboratory - II | -- | -- | 3 | 2 |
| 8-HS | Applied / Engineering Physics Laboratory | -- | -- | 3 | 2 |
| 9-ES | Applied / Engineering Physics – Virtual Labs - Assignments | -- | -- | 2 | -- |
| 10 | Engg. Workshop & IT Workshop | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |


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II Year – I Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------|----|----|----|-----------|
| 1 | Electrical Circuit Analysis - II | 4 | -- | -- | 3 |
| 2 | Electrical Machines-I | 4 | -- | -- | 3 |
| 3 | Basic Electronics and Devices | 4 | -- | -- | 3 |
| 4 | Electro Magnetic Fields | 4 | -- | -- | 3 |
| 5 | Thermal and Hydro Prime Movers | 4 | -- | -- | 3 |
| 6 | Managerial Economics & Financial Analysis | 4 | -- | -- | 3 |
| 7 | Thermal and Hydro Laboratory | -- | -- | 3 | 2 |
| 8 | Electrical Circuits Laboratory | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year – II Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------|----|----|----|-----------|
| 1 | Electrical Measurements | 4 | -- | -- | 3 |
| 2 | Electrical Machines-II | 4 | -- | -- | 3 |
| 3 | Switching Theory and Logic Design | 4 | -- | -- | 3 |
| 4 | Control Systems | 4 | -- | -- | 3 |
| 5 | Power Systems-I | 4 | -- | -- | 3 |
| 6 | Management Science | 4 | -- | -- | 3 |
| 7 | Electrical Machines -I Laboratory | -- | -- | 3 | 2 |
| 8 | Electronic Devices & Circuits Laboratory | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |



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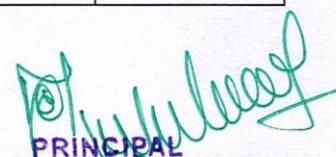
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III Year – I Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|------------------------------------|----|----|----|-----------|
| 1 | Power Systems-II | 4 | -- | -- | 3 |
| 2 | Renewable Energy Sources | 4 | -- | -- | 3 |
| 3 | Signals and Systems | 4 | -- | -- | 3 |
| 4 | Pulse & Digital Circuits | 4 | -- | -- | 3 |
| 5 | Power Electronics | 4 | -- | -- | 3 |
| 6 | Electrical Machines-II Laboratory | -- | -- | 3 | 2 |
| 7 | Control Systems Laboratory | -- | -- | 3 | 2 |
| 8 | Electrical Measurements Laboratory | -- | -- | 3 | 2 |
| 9-MC | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |

III Year – II Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Power Electronic Controllers & Drives | 4 | -- | -- | 3 |
| 2 | Power System Analysis | 4 | -- | -- | 3 |
| 3 | Micro Processors and Micro controllers | 4 | -- | -- | 3 |
| 4 | Data Structures | 4 | -- | -- | 3 |
| 5 | Open Elective 1. Unix and Shell Programming 2. OOPS Through JAVA 3. VLSI Design 4. Robotics 5. Neural Networks & Fuzzy Logic 6. Energy Audit and Conservation & Management | 4 | -- | -- | 3 |
| 6 | Power Electronics Laboratory | -- | -- | 3 | 2 |
| 7 | Microprocessors & Microcontrollers Laboratory | -- | -- | 3 | 2 |
| 8 | Data Structures Laboratory | -- | -- | 3 | 2 |
| 9-MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |


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IV Year – I Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Utilization of Electrical Energy | 4 | -- | -- | 3 |
| 2 | Linear IC Applications | 4 | -- | -- | 3 |
| 3 | Power System Operation & Control | 4 | -- | -- | 3 |
| 4 | Switchgear and Protection | 4 | -- | -- | 3 |
| 5 | Elective – I: 1. Electrical Machine Modeling and Analysis 2. Advanced Control Systems 3. Programmable Logic Controllers & Applications 4. Instrumentation | 4 | -- | -- | 3 |
| 6 | Elective – II: 1. Optimization Techniques 2. Electric Power Quality 3. Special Electrical Machines | 4 | -- | -- | 3 |
| 7 | Electrical Simulation Laboratory | -- | -- | 2 | 2 |
| 8 | Power Systems & Simulation Laboratory | -- | -- | 2 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Digital Control Systems | 4 | -- | -- | 3 |
| 2 | HVDC Transmission | 4 | -- | -- | 3 |
| 3 | Electrical Distribution Systems | 4 | -- | -- | 3 |
| 4 | Elective – III: 1. High Voltage Engineering 2. Flexible Alternating Current Transmission Systems 3. Power System Reforms | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |


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For

MECHANICAL ENGINEERING

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I Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-ES | Engineering Chemistry | 4 | -- | -- | 3 |
| 4-BS | Engineering Mechanics | 4 | -- | -- | 3 |
| 5-BS | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Environmental Studies | 4 | -- | -- | 3 |
| 7-HS | Engineering/Applied Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-BS | English - Communication Skills Lab - I | -- | -- | 3 | 2 |
| 9-ES | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-----------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 3-BS | Mathematics – III | 4 | -- | -- | 3 |
| 4-ES | Engineering Physics | 4 | -- | -- | 3 |
| 5-HS | Basic Electrical and Electronics Engineering | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-BS | English - Communication Skills Lab - II | -- | -- | 3 | 2 |
| 8-HS | Engineering /Applied Physics Lab | -- | -- | 3 | 2 |
| 9-ES | Engineering /Applied Physics – Virtual Labs - Assignments | -- | -- | 2 | -- |
| 10 | Engg. Workshop & IT Workshop | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

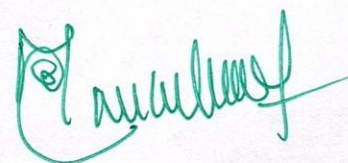
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II Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------|----|----|----|-----------|
| 1 | Metallurgy & Materials Science | 4 | -- | -- | 3 |
| 2 | Mechanics of Solids | 4 | -- | -- | 3 |
| 3 | Thermodynamics | 4 | -- | -- | 3 |
| 4 | Managerial Economics & Financial Analysis | 4 | -- | -- | 3 |
| 5 | Fluid Mechanics & Hydraulic Machines | 4 | -- | -- | 3 |
| 6 | Computer Aided Engineering Drawing Practice | 3 | 3 | -- | 3 |
| 7 | Electrical & Electronics Engg. Lab | -- | -- | 3 | 2 |
| 8 | Mechanics of Solids & Metallurgy Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------|----|----|----|-----------|
| 1 | Kinematics of Machinery | 4 | -- | -- | 3 |
| 2 | Thermal Engineering -I | 4 | -- | -- | 3 |
| 3 | Production Technology | 4 | -- | -- | 3 |
| 4 | Design of Machine Members -I | 4 | -- | -- | 3 |
| 5 | Machine Drawing | 3 | 3 | -- | 3 |
| 6 | Industrial Engineering and Management | 4 | -- | -- | 3 |
| 7 | Fluid Mechanics & Hydraulic Machines Lab | -- | -- | 3 | 2 |
| 8 | Production Technology Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |



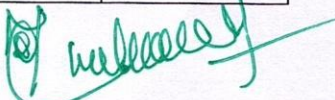
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III Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------|----|----|----|-----------|
| 1 | Dynamics of Machinery | 4 | -- | -- | 3 |
| 2 | Metal Cutting & Machine Tools | 4 | -- | -- | 3 |
| 3 | Design of Machine Members-II | 4 | -- | -- | 3 |
| 4 | Operations Research | 4 | -- | -- | 3 |
| 5 | Thermal Engineering -II | 4 | -- | -- | 3 |
| 6 | Theory of Machines Lab | -- | -- | 3 | 2 |
| 7 | Machine Tools Lab | -- | -- | 3 | 2 |
| 8 | Thermal Engineering Lab | -- | -- | 3 | 2 |
| 9 | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |

III YEAR - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Metrology | 4 | -- | -- | 3 |
| 2 | Instrumentation & Control Systems | 4 | -- | -- | 3 |
| 3 | Refrigeration & Air-conditioning | 4 | -- | -- | 3 |
| 4 | Heat Transfer | 4 | -- | -- | 3 |
| 5 | OPEN ELECTIVE 1. Entrepreneurship 2. Data Base Management System 3. Waste Water Management 4. Computer Graphics 5. Industrial Robotics 6. Green Engineering Systems | 4 | -- | -- | 3 |
| 6 | Heat Transfer Lab | -- | -- | 3 | 2 |
| 7 | Metrology & Instrumentation Lab | -- | -- | 3 | 2 |
| 8 | Computational Fluid Dynamics Lab | -- | -- | 3 | 2 |
| 9MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |



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IV Year - I Semester

| S. NO | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Mechatronics | 4 | -- | -- | 3 |
| 2 | CAD/CAM | 4 | -- | -- | 3 |
| 3 | Finite Element Methods | 4 | -- | -- | 3 |
| 4 | Power Plant Engineering | 4 | -- | -- | 3 |
| 5 | Elective I 1. Computational Fluid Dynamics 2. Condition Monitoring 3. Additive Manufacturing | 4 | -- | -- | 3 |
| 6 | Elective II 1. Advanced Materials 2. Design for Manufacture 3. Gas Dynamics & Jet Propulsion | 4 | -- | -- | 3 |
| 7 | CAD/CAM Lab | -- | -- | 2 | 2 |
| 8 | Mechatronics Lab | -- | -- | 2 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Production Planning and Control | 4 | -- | -- | 3 |
| T 2 | Unconventional Machining Processes | 4 | -- | -- | 3 |
| 3 | Automobile Engineering | 4 | -- | -- | 3 |
| 4 | Elective III 1. Thermal Equipment Design 2. Non Destructive Evaluation 3. Quality and Reliability Engineering | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |

Total Course Credits = 48+44 + 42 + 46 = 180


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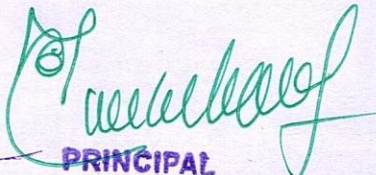
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I Year - I Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-ES | Mathematics -II (Numerical Methods and Complex Variables) | 4 | -- | -- | 3 |
| 4-BS | Applied Physics | 4 | -- | -- | 3 |
| 5-ES | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 1 | -- | 3 | 3 |
| 7-HS | English - Communication Skills Lab -1 | -- | -- | 3 | 2 |
| 8-BS | Applied / Engineering Physics Laboratory | -- | -- | 3 | 2 |
| 9-BS | Applied / Engineering Physics – Virtual Labs - Assignments | -- | -- | 2 | -- |
| 10-ES | Engineering Workshop& IT Workshop | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics -III | 4 | -- | -- | 3 |
| 3-BS | Applied Chemistry | 4 | -- | -- | 3 |
| 4-ES | Electrical and Mechanical Technology | 4 | -- | -- | 3 |
| 5-HS | Environmental Studies | 4 | -- | -- | 3 |
| 6-ES | Data Structures | 4 | -- | -- | 3 |
| 7-BS | Applied / Engineering Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-HS | English - Communication Skills Lab -2 | -- | -- | 3 | 2 |
| 9-ES | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |


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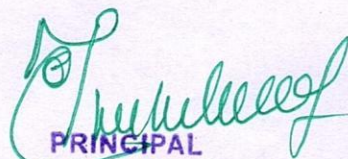
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ENIKEPADU, VIJAYAWADA-521 108.

II Year - I Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------|----|----|----|-----------|
| 1 | Electronic Devices and Circuits | 4 | -- | -- | 3 |
| 2 | Switching Theory and Logic Design | 4 | -- | -- | 3 |
| 3 | Signals and Systems | 4 | -- | -- | 3 |
| 4 | Network Analysis | 4 | -- | -- | 3 |
| 5 | Random Variables and Stochastic Process | 4 | -- | -- | 3 |
| 6 | Managerial Economics & Financial Analysis | 4 | -- | -- | 3 |
| 7 | Electronic Devices and Circuits Lab | -- | -- | 3 | 2 |
| 8 | Networks & Electrical Technology Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year - II Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------|----|----|----|-----------|
| 1 | Electronic Circuit Analysis | 4 | -- | -- | 3 |
| 2 | Control Systems | 4 | -- | -- | 3 |
| 3 | Electromagnetic Waves and Transmission Lines | 4 | -- | -- | 3 |
| 4 | Analog Communications | 4 | -- | -- | 3 |
| 5 | Pulse and Digital Circuits | 4 | -- | -- | 3 |
| 6 | Management Science | 4 | -- | -- | 3 |
| 7 | Electronic Circuit Analysis Lab | -- | -- | 3 | 2 |
| 8 | Analog Communications Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |


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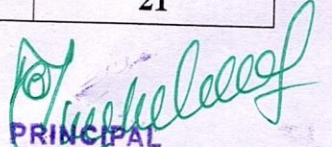
SRK Institute of Technology
 ENIKEPADU, VIJAYAWADA-521 108.

III Year - I Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------|----|----|----|-----------|
| 1 | Computer Architecture and Organization | 4 | -- | -- | 3 |
| 2 | Linear I C Applications | 4 | -- | -- | 3 |
| 3 | Digital I C Applications | 4 | -- | -- | 3 |
| 4 | Digital Communications | 4 | -- | -- | 3 |
| 5 | Antenna and Wave Propagation | 4 | -- | -- | 3 |
| 6 | Pulse and Digital Circuits Lab | -- | -- | 3 | 2 |
| 7 | Linear I C Applications Lab | -- | -- | 3 | 2 |
| 8 | Digital I C Applications Lab | -- | -- | 3 | 2 |
| MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |

III Year - II Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Micro Processors & Micro Controllers | 4 | -- | -- | 3 |
| 2 | Micro Wave Engineering | 4 | -- | -- | 3 |
| 3 | VLSI Design | 4 | -- | -- | 3 |
| 4 | Digital Signal Processing | 4 | -- | -- | 3 |
| 5 | OPEN ELECTIVE 1. OOPs through Java 2. Data Mining 3. Industrial Robotics 4. Power Electronics 5. Bio-Medical Engineering 6. Artificial Neural Networks | 4 | -- | -- | 3 |
| 6 | Micro Processors & Micro Controllers Lab | -- | -- | 3 | 2 |
| 7 | VLSI Lab | -- | -- | 3 | 2 |
| 8 | Digital Communications Lab | -- | -- | 3 | 2 |
| MC | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |


PRINCIPAL

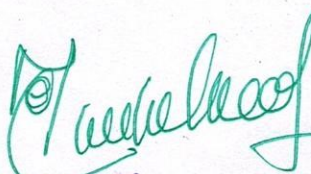
IV Year - I Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|---------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Radar Systems | 4 | -- | -- | 3 |
| 2 | Digital Image Processing | 4 | -- | -- | 3 |
| 3 | Computer Networks | 4 | -- | -- | 3 |
| 4 | Optical Communications | 4 | -- | -- | 3 |
| 5 | Elective I 1. TV Engineering 2. Electronic Switching Systems 3. System Design through Verilog | 4 | -- | -- | 3 |
| 6 | Elective II 1. Embedded Systems 2. Analog IC Design 3. Network Security & Cryptography | 4 | -- | -- | 3 |
| 7 | Micro Wave Engineering & Optical Lab | -- | -- | 2 | 2 |
| 8 | Digital Signal Processing Lab | -- | -- | 2 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S.No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Cellular Mobile Communications | 4 | -- | -- | 3 |
| 2 | Electronic Measurements and Instrumentation | 4 | -- | -- | 3 |
| 3 | Satellite Communications | 4 | -- | -- | 3 |
| 4 | Elective III 1. Wireless sensors & Networks 2. Digital IC Design 3. Operating Systems | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |

Total Course Credits = 48+44 + 42 + 46 = 180


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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY:
KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India**

COURSE STRUCTURE AND SYLLABUS

For

COMPUTER SCIENCE AND ENGINEERING
(Applicable for batches admitted from 2016-2017)



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India**

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY:
KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

I Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 4-BS | Applied Physics | 4 | -- | -- | 3 |
| 5 | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-HS | English - Communication Skills Lab - 1 | -- | -- | 3 | 2 |
| 8-BS | Applied / Engineering Physics Lab | -- | -- | 3 | 2 |
| 9-ES | Applied / Engineering Physics – Virtual Labs – Assignments | -- | -- | 2 | -- |
| 10 | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II SEMESTER

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics - III | 4 | -- | -- | 3 |
| 3-BS | Applied Chemistry | 4 | -- | -- | 3 |
| 4 | Object Oriented Programming through C++ | 4 | -- | -- | 3 |
| 5-HS | Environmental Studies | 4 | -- | -- | 3 |
| 6-ES | Engineering Mechanics | 4 | -- | -- | 3 |
| 7-BS | Applied / Engineering Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-HS | English - Communication Skills Lab – 2 | -- | -- | 3 | 2 |
| 9 | Object Oriented Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY:
KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

II Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------|----|----|----|-----------|
| 1-HS | Statistics with R Programming | 4 | -- | -- | 3 |
| 2 | Mathematical Foundations of Computer Science | 4 | -- | -- | 3 |
| 3 | Digital Logic Design | 4 | -- | -- | 3 |
| 4 | Python Programming | 4 | -- | -- | 3 |
| 5 | Data Structures through C++ | 4 | -- | -- | 3 |
| 6 | Computer Graphics | 4 | -- | -- | 3 |
| 7 | Data Structures through C++Lab | -- | -- | 3 | 2 |
| 8 | Python Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------|----|----|----|-----------|
| 1 | Software Engineering | 4 | -- | -- | 3 |
| 2 | Java Programming | 4 | -- | -- | 3 |
| 3 | Advanced Data Structures | 4 | -- | -- | 3 |
| 4 | Computer Organization | 4 | -- | -- | 3 |
| 5 | Formal Languages and Automata Theory | 4 | -- | -- | 3 |
| 6 | Principles of Programming Languages | 4 | -- | -- | 3 |
| 7 | Advanced Data Structures Lab | -- | -- | 3 | 2 |
| 8 | Java Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY:
KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-----------------------------------------------|----|----|----|-----------|
| 1 | Compiler Design | 4 | -- | -- | 3 |
| 2 | Unix Programming | 4 | -- | -- | 3 |
| 3 | Object Oriented Analysis and Design using UML | 4 | -- | -- | 3 |
| 4 | Database Management Systems | 4 | -- | -- | 3 |
| 5 | Operating Systems | 4 | -- | -- | 3 |
| 6 | Unified Modeling Lab | -- | -- | 3 | 2 |
| 7 | Operating System & Linux Programming Lab | -- | -- | 3 | 2 |
| 8 | Database Management System Lab | -- | -- | 3 | 2 |
| MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |

III Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Computer Networks | 4 | 2 | -- | 3 |
| 2 | Data Warehousing and Mining | 4 | -- | -- | 3 |
| 3 | Design and Analysis of Algorithms | 4 | -- | -- | 3 |
| 4 | Software Testing Methodologies | 4 | -- | -- | 3 |
| 5 | Open Elective: i. Artificial Intelligence ii. Internet of Things iii. Cyber Security iv. Digital Signal Processing v. Embedded Systems vi. Robotics | 4 | -- | -- | 3 |
| 6 | Network Programming Lab | -- | -- | 3 | 2 |
| 7 | Software Testing Lab | -- | -- | 3 | 2 |
| 8 | Data Warehousing and Mining Lab | -- | -- | 3 | 2 |
| 9 | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY:
KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

IV Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Cryptography and Network Security | 4 | -- | -- | 3 |
| 2 | Software Architecture & Design Patterns | 4 | -- | -- | 3 |
| 3 | Web Technologies | 4 | -- | -- | 3 |
| 4- HS | Managerial Economics and Financial Analysis | 4 | -- | -- | 3 |
| 5 | Elective-I i. Big Data Analytics ii. Information Retrieval Systems iii. Mobile Computing | 4 | -- | -- | 3 |
| 6 | Elective-II i. Cloud Computing ii. Software Project Management iii. Scripting Languages | 4 | -- | -- | 3 |
| 7 | Software Architecture & Design Patterns Lab | -- | -- | 3 | 2 |
| 8 | Web Technologies Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Distributed Systems | 4 | -- | -- | 3 |
| 2- HS | Management Science | 4 | -- | -- | 3 |
| 3 | Machine Learning | 4 | -- | -- | 3 |
| 4 | Elective-III i. Concurrent and Parallel Programming ii. Artificial Neural Networks iii. Operations Research | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |

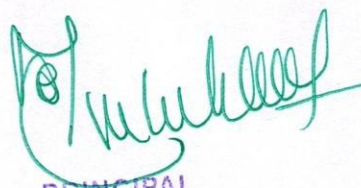
Total Course Credits = 48+44 + 42 + 46 = 180

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

COURSE STRUCTURE AND SYLLABUS
FOR
INFORMATION TECHNOLOGY
(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India


PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

I Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 4-BS | Applied Physics | 4 | -- | -- | 3 |
| 5 | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-HS | English - Communication Skills Lab - 1 | -- | -- | 3 | 2 |
| 8-BS | Applied / Engineering Physics Lab | -- | -- | 3 | 2 |
| 9-ES | Applied / Engineering Physics – Virtual Labs – Assignments | -- | -- | 2 | -- |
| 10 | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II SEMESTER

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--------------------------------------------|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics - III | 4 | -- | -- | 3 |
| 3-BS | Applied Chemistry | 4 | -- | -- | 3 |
| 4 | Object Oriented Programming through C++ | 4 | -- | -- | 3 |
| 5-HS | Environmental Studies | 4 | -- | -- | 3 |
| 6-ES | Engineering Mechanics | 4 | -- | -- | 3 |
| 7-BS | Applied / Engineering Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-HS | English - Communication Skills Lab – 2 | -- | -- | 3 | 2 |
| 9 | Object Oriented Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

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 NIKEPADU, VIJAYAWADA-521 108.

II Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------|----|----|----|-----------|
| 1-HS | Statistics with R Programming | 4 | -- | -- | 3 |
| 2 | Mathematical Foundations of Computer Science | 4 | -- | -- | 3 |
| 3 | Digital Logic Design | 4 | -- | -- | 3 |
| 4 | Python Programming | 4 | -- | -- | 3 |
| 5 | Data Structures through C++ | 4 | -- | -- | 3 |
| 6 | Software Engineering | 4 | -- | -- | 3 |
| 7 | Data Structures through C++ Lab | -- | -- | 3 | 2 |
| 8 | Python Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-----------------------------------------------|----|----|----|-----------|
| 1 | Computer Graphics | 4 | -- | -- | 3 |
| 2 | Java Programming | 4 | -- | -- | 3 |
| 3 | E-Commerce | 4 | -- | -- | 3 |
| 4 | Computer Organization | 4 | -- | -- | 3 |
| 5 | Object Oriented Analysis and Design using UML | 4 | -- | -- | 3 |
| 6 | Principles of Programming Languages | 4 | -- | -- | 3 |
| 7 | Unified Modeling Languages Lab | -- | -- | 3 | 2 |
| 8 | Java Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |



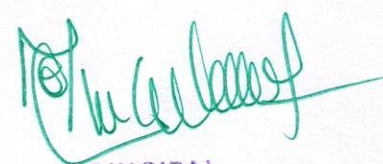
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SRK Institute of Technology
ENKEPADU, VIJAYAWADA-521 108.

III Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------|----|----|----|-----------|
| 1 | Human Computer Interaction | 4 | -- | -- | 3 |
| 2 | Unix and Shell Programming | 4 | -- | -- | 3 |
| 3 | Advanced Java Programming | 4 | -- | -- | 3 |
| 4 | Database Management Systems | 4 | -- | -- | 3 |
| 5 | Operating Systems | 4 | -- | -- | 3 |
| 6 | Advanced Java Programming Lab | -- | -- | -- | 2 |
| 7 | Unix and Operating Systems Lab | -- | -- | 3 | 2 |
| 8 | Database Management System Lab | -- | -- | 3 | 2 |
| MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |

III Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Computer Networks | 4 | -- | -- | 3 |
| 2 | Data Mining | 4 | -- | -- | 3 |
| 3 | Web Technologies | 4 | -- | -- | 3 |
| 4 | Software Testing Methodologies | 4 | -- | -- | 3 |
| 5 | Open Elective: i. Artificial Intelligence ii. Social Networks and Semantic Web iii. Digital Signal Processing iv. Embedded Systems v. Robotics vi. Operations Research | 4 | -- | -- | 3 |
| 6 | Web Technologies Lab | -- | -- | 3 | 2 |
| 7 | Software Testing Lab | -- | -- | 3 | 2 |
| 8 | Data Mining Lab | -- | -- | 3 | 2 |
| 9 | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |



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IV Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Cryptography and Network Security | 4 | -- | -- | 3 |
| 2 | Mobile Computing | 4 | -- | -- | 3 |
| 3 | Data Ware Housing and Business Intelligence | 4 | -- | -- | 3 |
| 4- HS | Managerial Economics and Financial Analysis | 4 | -- | -- | 3 |
| 5 | Elective-I i. Big Data Analytics ii. Information Retrieval Systems iii. Internet of Things iv. Multimedia Programming | 4 | -- | -- | 3 |
| 6 | Elective-II i. Cloud Computing ii. Software Project Management iii. Machine Learning iv. Decision Support System | 4 | -- | -- | 3 |
| 7 | Mobile Computing Lab | -- | -- | 3 | 2 |
| 8 | Cryptography and Network Security Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|-----------|
| 1 | Distributed Systems | 4 | -- | -- | 3 |
| 2- HS | Management Science | 4 | -- | -- | 3 |
| 3 | Management Information System | 4 | -- | -- | 3 |
| 4 | Elective-III i. Concurrent and Parallel Programming ii. Cyber Security iii. Artificial Neural Networks iv. Software Quality Assurance | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total credits | | | | | 24 |

Total Course Credits = 48+44 + 42 + 46 = 180


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE & SYLLABUS M.Tech CSE for
COMPUTER SCIENCE & ENGINEERING PROGRAMME
(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

I-SEMESTER

| S.No | Course Code | Courses | Category | L | T | P | C |
|----------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------|----------|---|---|---|----|
| 1 | MTCSE1101 | Program Core-1 Mathematical Foundations of Computer Science | PC | 3 | 0 | 0 | 3 |
| 2 | MTCSE1102 | Program Core-2 Advanced Data Structures & Algorithms | PC | 3 | 0 | 0 | 3 |
| 3 | MTCSE1103 | Program Elective-1 1. Big Data Analytics 2. Digital Image Processing 3. Advanced Operating Systems | PE | 3 | 0 | 0 | 3 |
| 4 | MTCSE1104 | Program Elective-2 1. Advanced Computer Networks 2. Internet of Things 3. Object Oriented Software Engineering | PE | 3 | 0 | 0 | 3 |
| 5 | MTCSE1105 | Research Methodology and IPR | CC | | | 0 | 2 |
| 6 | MTCSE1106 | Laboratory-1 Advanced Data Structures & Algorithms Lab | LB | 0 | 0 | 4 | 2 |
| 7 | MTCSE1107 | Laboratory-2 Advanced Computing Lab | LB | 0 | 0 | 4 | 2 |
| 8 | MTCSE1108 | Audit Course-1* | AC | 2 | 0 | 0 | 0 |
| Total Credits | | | | | | | 18 |

*Student has to choose any one audit course listed below.

II SEMESTER

| S.No | Course Code | Courses | Category | L | T | P | C |
|----------------------|-------------|------------------------------------------------------------------------------------------------------------------------|----------|---|---|---|----|
| 1 | MTCSE1201 | Program Core-3 Machine learning | PC | 3 | 0 | 0 | 3 |
| 2 | MTCSE1202 | Program Core-4 MEAN Stack Technologies | PC | 3 | 0 | 0 | 3 |
| 3 | MTCSE1203 | Program Elective-3 1. Advanced Databases and Mining 2. Ad Hoc & Sensor Networks 3. Soft Computing | PE | 3 | 0 | 0 | 3 |
| 4 | MTCSE1204 | Program Elective-4 1. Cloud Computing 2. Principles of computer security 3. High Performance Computing | PE | 3 | 0 | 0 | 3 |
| 5 | MTCSE1205 | Laboratory-3 Machine Learning with python lab | LB | 0 | 0 | 4 | 2 |
| 6 | MTCSE1206 | Laboratory-4 MEAN Stack Technologies Lab | LB | 0 | 0 | 4 | 2 |
| 7 | MTCSE1207 | Mini Project with Seminar | MP | 2 | 0 | 0 | 2 |
| 8 | MTCSE1208 | Audit Course-2 * | AC | 2 | 0 | 0 | 0 |
| Total Credits | | | | | | | 18 |

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

**Student has to choose any one audit course listed below.*

Audit Course 1 & 2:

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills

III-SEMESTER

| S.No | Course Code | Courses | Category | L | T | P | C |
|----------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---|---|----|----|
| 1 | MTCSE2101 | Program Elective-5 1. Deep Learning 2. Social Network Analysis 3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the programme which is not listed in the course structure | PE | 3 | 0 | 0 | 3 |
| 2 | MTCSE2102 | Open Elective 1. MOOCs-2 (NPTEL/SWAYAM)-Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department 2. Course offered by other departments in the college | OE | 3 | 0 | 0 | 3 |
| 3 | MTCSE2103 | Dissertation-I/ Industrial Project # | PJ | 0 | 0 | 20 | 10 |
| Total Credits | | | | | | | 16 |

#Students going for Industrial Project/Thesis will complete these courses through MOOCs

| M. Tech. (CSE) IV SEMESTER | | | | | | | |
|----------------------------|-------------|------------------------|----------|---|---|----|----|
| S.No | Course Code | Courses | Category | L | T | P | C |
| 1 | MTCSE2201 | Dissertation-II | PJ | 0 | 0 | 32 | 16 |
| Total Credits | | | | | | | 16 |

Open Electives offered by the Department of CSE

1. Python Programming
2. Principles of Cyber Security
3. Internet of Things
4. Machine Learning
5. Digital forensics
6. Next Generation Databases

PRINCIPAL
SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

ACADEMIC REGULATIONS
COURSE STRUCTURE & DETAILED SYLLABUS

For

MASTER OF BUSINESSADMINISTRATION
(Applicable for the batches admitted from 2019-20)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533003, ANDHRA PRADESH, INDIA

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SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108.

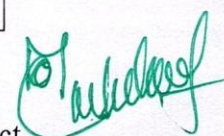
| I YEAR I SEMESTER | | | | | | | |
|-------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|----------|----------|-----------|
| S.No | Course Code | Courses | Marks | L | T | P | C |
| 1 | C-101 | Management and Organizational Behavior | 100 | 4 | 0 | 0 | 4 |
| 2 | C-102 | Managerial Economics | 100 | 4 | 0 | 0 | 4 |
| 3 | C-103 | Accounting for Managers | 100 | 4 | 0 | 0 | 4 |
| 4 | C-104 | Quantitative Analysis for Business Decisions | 100 | 4 | 0 | 0 | 4 |
| 5 | C-105 | Legal and Business Environment | 100 | 4 | 0 | 0 | 4 |
| 6 | C-106 | Business Communication and Soft skills | 100 | 4 | 0 | 0 | 4 |
| 7 | C-107 Open Elective | Cross Cultural Management Rural Innovation projects MOOCs : SWAYAM/NPTEL- Related to Management Courses other than listed courses in the syllabus | 100 | 4 | 0 | 0 | 4 |
| 8 | C-108 | Business Communication and Soft skills Lab | 50 | 0 | 0 | 2 | 2 |
| 9 | C-109 | Information Technology – Lab1(Spreadsheet and Tally) | 50 | 0 | 0 | 2 | 2 |
| Total | | | 800 | 28 | 0 | 4 | 32 |

| I YEAR II SEMESTER | | | | | | | |
|--------------------|------------------------|-------------------------------------------------------------------------------------------|------------|-----------|----------|----------|-----------|
| S.No | Course Code | Courses | Marks | L | T | P | C |
| 1 | C-201 | Financial Management | 100 | 4 | 0 | 0 | 4 |
| 2 | C-202 | Human Resource Management | 100 | 4 | 0 | 0 | 4 |
| 3 | C-203 | Marketing Management | 100 | 4 | 0 | 0 | 4 |
| 4 | C-204 | Operations Management | 100 | 4 | 0 | 0 | 4 |
| 5 | C-205 | Business Research Methods | 100 | 4 | 0 | 0 | 4 |
| 6 | C-206 open elective | Project Management Technology Management Lean Management Database Management System | 100 | 4 | 0 | 0 | 4 |
| 7 | C-207 | IT-lab 2(Programming R) | 50 | 0 | 0 | 2 | 2 |
| Total | | | 650 | 24 | 0 | 2 | 26 |

| | | | | | | |
|---------------------|---------------------------|-----|---|---|---|---|
| C-107 Open Elective | Cross Cultural Management | 100 | 4 | 0 | 0 | 4 |
|---------------------|---------------------------|-----|---|---|---|---|

Objective:

The objective of this course is to enhance the ability of class members to interact effectively with people from cultures other than their own, specifically in the context of international business. The course is aimed at significantly improving the ability of practicing managers to be effective global managers.


 PRINCIPAL
 SRK Institute of Technology
 ENIKEPADU, VIJAYAWADA-521 108.

ACADEMIC REGULATIONS & COURSE STRUCTURE

For

MCA

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

PRINCIPAL

SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

I Semester

| S. No. | Subject | T | P |
|--------|---------------------------------------------------|---|---|
| 1 | C PROGRAMMING AND DATA STRUCTURES | 4 | - |
| 2 | COMPUTER ORGANIZATION | 4 | - |
| 3 | DISCRETE MATHEMATICAL STRUCTURES AND GRAPH THEORY | 4 | - |
| 4 | STATISTICAL PROGRAMMING WITH R | 4 | - |
| 5 | ACCOUNTING AND FINANCIAL MANAGEMENT | 4 | - |
| 6 | ENGLISH LANGUAGE COMMUNICATION SKILLS LAB | | 3 |
| 7 | C PROGRAMMING LAB | - | 3 |
| 8 | STATISTICAL PROGRAMMING WITH R LAB | - | 3 |

II Semester

| S. No. | Subject | T | P |
|--------|------------------------------------------|---|---|
| 1 | OOPS THROUGH JAVA | 4 | - |
| 2 | OPERATING SYSTEMS | 4 | - |
| 3 | SOFTWARE ENGINEERING | 4 | - |
| 4 | OPTIMIZATION TECHNIQUES | 4 | - |
| 5 | COMPUTER GRAPHICS | 4 | - |
| 6 | OOPS THROUGH JAVA LAB | - | 3 |
| 7 | DATA STRUCTURES LAB | - | 3 |
| 8 | OPERATING SYSTEM & COMPUTER GRAPHICS LAB | - | 3 |



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III Semester

| S. No. | Subject | T | P |
|--------|-----------------------------------|---|---|
| 1 | DATA BASE MANAGEMENT SYSTEMS | 4 | - |
| 2 | COMPUTER NETWORKS | 4 | - |
| 3 | UNIX PROGRAMMING | 4 | - |
| 4 | MANAGEMENT INFORMATION SYSTEM | 4 | - |
| 5 | DESIGN AND ANALYSIS OF ALGORITHMS | 4 | - |
| 6 | DATA BASE MANAGEMENT SYSTEMS LAB | - | 3 |
| 7 | UNIX PROGRAMMING LAB | - | 3 |
| 8 | COMPUTER NETWORKS LAB | | 3 |

IV Semester

| S. No. | SUBJECT | T | P |
|--------|-------------------------------------------------------------------------------------------------------------------------------|---|---|
| 1 | OBJECT ORIENTED ANALYSIS AND DESIGN | 4 | - |
| 2 | ADVANCED JAVA & WEB TECHNOLOGIES | 4 | - |
| 3 | DATA WAREHOUSING AND MINING | 4 | - |
| 4 | ELECTIVE-I MCA16.4.4.1 MOBILE COMPUTING MCA16.4.4.2 HUMAN COMPUTER INTERACTION MCA16.4.4.3 CLOUD COMPUTING | 4 | - |
| 5 | ELECTIVE-II MCA16.4.5.1 SOFTWARE PROJECT MANAGEMENT MCA16.4.5.2 ARTIFICIAL INTELLIGENCE MCA16.4.5.3 EMBEDDED SYSTEMS | 4 | - |
| 6 | ADVANCED JAVA & WEB TECHNOLOGIES LAB | - | 3 |
| 7 | DATA WAREHOUSING AND MINING LAB | - | 3 |
| 8 | OBJECT ORIENTED ANALYSIS AND DESIGN LAB | | |



V Semester

| S. No. | SUBJECT | T | P |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| 1 | BIG DATA ANALYTICS | 4 | - |
| 2 | NETWORK PROGRAMMING | 4 | - |
| 3 | PYTHON PROGRAMMING | 4 | - |
| 4 | ELECTIVE-III MCA16.5.4.1 CYBER SECURITY MCA16.5.4.2 COMPUTER FORENSICS MCA16.5.4.3 E-COMMERCE | 4 | - |
| 5 | ELECTIVE-IV MCA16.5.5.1 INTERNET OF THINGS MCA16.5.5.2 MULTIMEDIA APPLICATION DEVELOPMENT MCA16.5.5.3 SOFTWARE TESTING METHODOLOGIES | 4 | - |
| 6 | BIG DATA ANALYTICS LAB | - | 3 |
| 7 | NETWORK PROGRAMMING LAB | - | 3 |
| 8 | PYTHON PROGRAMMING LAB | - | 3 |

VI Semester

| S. No. | SUBJECT |
|--------|---------------------------------------------------------------------------|
| 1 | PROJECT SEMINAR |
| 2 | DISSERTATION/ THESIS EXCELLENT / GOOD / SATISFACTORY/ NOT SATISFACTORY |



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