KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE
(An Autonomous Institute under Kakatiya University, Warangal)
(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)
Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.
काकतीय प्रैद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०१५
కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫
website: www.kitsw.ac.in E-mail: principal@kitsw.ac.in ✆ : +91 9392055211, +91 7382564888

# DEPARTMENT OF INFORMATION TECHNOLOGY

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website: www.kitsw.ac.in E-mail: principal@kitsw.ac.in ✆ : +91 9392055211, +91 7382564888

## VISION OF THE INSTITUTE

- *To make our students technologically superior and ethically strong by providing quality education with the help of our dedicated faculty and staff and thus improve the quality of human life*

## MISSION OF THE INSTITUTE

- *To provide latest technical knowledge, analytical and practical skills, managerial competence and interactive abilities to students, so that their employability is enhanced*
- *To provide a strong human resource base for catering to the changing needs of the Industry and Commerce*
- *To inculcate a sense of brotherhood and national integrity*

## DEPARTMENT OF INFORMATION TECHNOLOGY

### VISION OF THE DEPARTMENT

- *To become a Center of Excellence in the Information Technology discipline with effective teaching and strong research environment that makes our students globally competitive with strong ethical values and leadership abilities.*

### MISSION OF THE DEPARTMENT

- *To impart technical knowledge to the students to turn out proficient and well groomed engineers.*
- *Motivate students to improve skills by attending training programs and internships that lead to develop innovative projects in emerging technologies.*
- *To train our students for higher education, leadership in profession and adopt quality research.*

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

### UG – INFORMATION TECHNOLOGY

| **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)** | The **INFORMATION TECHNOLOGY** graduates will be able to |
|---|---|
| **PEO1:** | *provide students with a sound foundation in Information Technology theory and practices to analyze, formulate and solve engineering problems.* |
| **PEO2:** | *develop an ability to design algorithms, implement programs and deploy software.* |
| **PEO3:** | *develop Information Technology solutions with the changing needs of the society for the career-related activities.* |

| PROGRAM OUTCOMES (POs) & PROGRAM SPECIFIC OUTCOMES (PSOs) | |
|---|---|
| **UG – INFORMATION TECHNOLOGY** | |
| **PROGRAM OUTCOMES (POs)** | **At the time of graduation**, the **INFORMATION TECHNOLOGY** graduates will be able to … |
| **PO1: Engineering knowledge** | *apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems* |
| **PO2: Problem analysis** | *identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences* |
| **PO3: Design/development of solutions** | *design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental Considerations* |
| **PO4: Conduct investigations of complex problems** | *use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions* |
| **PO5: Modern tool usage** | *create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations* |
| **PO6: The engineer and society** | *apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice* |
| **PO7: Environment and sustainability** | *understand the impact of the professional engineering solutions in societal and environmental contexts, demonstrate the knowledge of, and need for sustainable development* |
| **PO8: Ethics** | *apply ethical principles and commit to professional ethics, responsibilities, and norms of the engineering practice* |
| **PO9: Individual and team work** | *function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings* |
| **PO10: Communication** | *communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions* |
| **PO11: Project management and finance** | *demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments* |
| **PO12: Life-long learning** | *recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change* |
| **PROGRAM SPECIFIC OUTCOMES (PSOs):** | |
| **PSO1** | *apply analytical and experimental problem-solving skills in the Information Technology discipline.* |
| **PSO2** | *use fundamental knowledge to investigate new and emerging technologies leading to innovations in the field of Information Technology.* |
| **PSO3** | *begin immediate professional practice as an Information Technology Engineer.* |

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# B.Tech - INFORMATION TECHNOLOGY

## SCHEME OF INSTRUCTIONS & EVALUTION

## (I Semester to VIII Semester)

**(Applicable from the Academic Year 2018-19)**

**DEPARTMENT OF INFORMATION TECHNOLOGY**
**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL – 15**
*(An Autonomous Institute under Kakatiya University, Warangal)*

**SCHEME OF INSTRUCTION AND EVALUATION**
**I-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[5Th+5P+2MC]**

| Sl. No. | Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | BSC | U18MH101 | Engineering Mathematics – I | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 2 | ESC | U18CS102 | Programming for Problem Solving using C | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | BSC | U18PH103 | Engineering Physics | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 4 | HSMC | U18MH104 | English for Communication | 2 | - | 2 | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | ESC | U18EE105 | Basic Electrical Engineering | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 6 | ESC | U18EE106 | Basic Electrical Engineering Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 7 | ESC | U18CS107 | Programming for Problem Solving using C Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 8 | BSC | U18PH108 | Engineering Physics Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 9 | ESC | U18ME109 | Workshop Practice | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 10 | MC | U18EA110 | EAA* : Sports/Yoga/NSS | - | - | 2 | - | 100 | - | - | - | 100 |
| 11 | MC | U18MH111 | Universal Human Values-I* (*Induction Programme*) | - | - | - | - | - | - | - | - | - |
| | | | **Total** | **14** | **3** | **12** | **22** | **310** | **150** | **360** | **540** | **1000** |

**L= Lecture, T = Tutorials, P = Practicals & C = Credits EAA: Extra Academic Activity**
*** indicates mandatory non-credit course**

**Contact hours per week : 29**
**Total Credits : 22**

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**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL – 15**
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**SCHEME OF INSTRUCTION AND EVALUATION**
**II-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[5Th+2P+2MC]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | BSC | U18MH201 | Engineering Mathematics – II | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 2 | ESC | U18CS202 | Data Structures through C | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | BSC | U18CH203 | Engineering Chemistry | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 4 | ESC | U18ME204 | Engineering Drawing | 2 | - | 4 | 4 | 10 | 30 | 40 | 60 | 100 |
| 5 | ESC | U18CE205 | Engineering Mechanics | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 6 | ESC | U18CS207 | Data Structures through C Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 7 | BSC | U18CH208 | Engineering Chemistry Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 8 | MC | U18CH209 | Environmental Studies* | 2 | - | - | - | 10 | 30 | 40 | 60 | 100 |
| 9 | MC | U18EA210 | EAA* : Sports/Yoga/NSS | - | - | 2 | - | 100 | - | - | - | 100 |
| **Total** | | | | **16** | **3** | **10** | **21** | **240** | **180** | **320** | **480** | **900** |

**L= Lecture, T = Tutorials, P = Practicals & C = Credits**
**EAA: Extra Academic Activity**
*** indicates mandatory non-credit course**

**Contact hours per week: 29**
**Total Credits : 21**


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**SCHEME OF INSTRUCTION AND EVALUATION**
**III-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[6Th+3P+1MC]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | BSC | U18MH301 | Engineering Mathematics-III | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 2 | HSMC | U18MH302 | Professional English | - | - | 2 | 1 | 100 | - | 100 | - | 100 |
| 3 | PCC | U18IT303 | Object Oriented Programming through C++ | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | BSC | U18MH304 | Discrete Mathematics | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | PCC | U18IT305 | Computer Architecture and Organization | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 6 | ESC | U18EC306 | Switching Theory and Logic Design | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 7 | PCC | U18IT307 | Operating Systems | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 8 | PCC | U18IT308 | Object Oriented Programming through C++ Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 9 | PCC | U18IT309 | Operating Systems Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 10 | MC | U18MH315 | Essence of Indian Traditional Knowledge* | 2 | - | - | - | 10 | 30 | 40 | 60 | 100 |
| | | | **Total** | **20** | **1** | **6** | **22** | **250** | **210** | **460** | **540** | **1000** |

**L= Lecture, T = Tutorials, P = Practicals & C = Credits**
**Contact hours per week : 27**
**Total Credits : 22**

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**SCHEME OF INSTRUCTION AND EVALUATION**
**IV-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[5Th+4P+1MC]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | OE | U18OE401 | Open Elective-II | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 2 | HSMC | U18TP402 | Soft and Interpersonal Skills | - | - | 2 | 1 | 100 | - | 100 | - | 100 |
| 3 | OE | U18OE403 | Open Elective-I | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | PCC | U18IT404 | Theory of Computation | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | PCC | U18IT405 | Database Management Systems | 3 | 1 | - | 4 | 10 | 30 | 40 | 60 | 100 |
| 6 | PCC | U18IT406 | Java Programming | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 7 | PCC | U18IT407 | Java Programming Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 8 | PCC | U18IT408 | Database Management Systems Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 9 | OE | U18OE411 | Open Elective-I based Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 10 | MC | U18CH416 | Environmental Studies* | 2 | - | - | - | 10 | 30 | 40 | 60 | 100 |
| | | | **Total** | **15/17*** | **2** | **8** | **21** | **270/280*** | **150/180*** | **420/460*** | **480/540*** | **900/1000*** |

**L= Lecture, T = Tutorials, P = Practicals & C = Credits**
*** indicates mandatory non-credit course for Lateral Entry Students only** **Contact hours per week: 25/27*** **Total Credits : 21**

| **Open Elective-I** | **Open Elective-II** | **Open Elective-I based Laboratory** |
|---|---|---|
| U18OE403B: Fluid Mechanics & Hydraulic Machines (CE) | U18OE401A: Applicable Mathematics (M&H) | U18OE411B: Fluid Mechanics & Hydraulic Machines Laboratory (CE) |
| U18OE403C: Mechatronics (ME) | U18OE401B: Basic Electronics Engineering (ECE) | U18OE411C: Mechatronics Laboratory (ME) |
| U18OE403E: Microprocessors (ECE) | U18OE401C: Elements of Mechanical Engineering (ME) | U18OE411E: Microprocessors Laboratory (ECE) |
| U18OE403F: Strength of Materials (CE) | U18OE401D: Measurements & Instrumentation (EIE) | U18OE411F: Strength of Materials Laboratory (CE) |
| | U18OE401F: Renewable Energy Sources (EEE) | |

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**SCHEME OF INSTRUCTION AND EVALUATION**
**V-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[6Th+3P+1 Seminar]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | HSMC | U18TP501 | Quantitative Aptitude and Logical Reasoning | 2 | - | - | 1 | 10 | 30 | 40 | 60 | 100 |
| 2 | PE | U18IT502 | Professional Elective-I/MOOCs–I | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | PCC | U18IT503 | Design and Analysis of Algorithms | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | PCC | U18IT504 | Web Technologies | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | PCC | U18IT505 | Computer Networks | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 6 | PCC | U18IT506 | Compilers | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 7 | PCC | U18IT507 | Design and Analysis of Algorithms Lab | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 8 | PCC | U18IT508 | Web Technologies Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 9 | PCC | U18IT509 | GUI Programming Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 10 | PROJ | U18IT510 | Seminar | - | - | 2 | 1 | 100 | - | 100 | - | 100 |
| **Total:** | | | | **17** | **-** | **8** | **20** | **280** | **180** | **460** | **540** | **1000** |
| ***Additional Learning*:*** *Maximum credits allowed for Honours/Minor* | | | | - | - | - | ***7*** | - | - | - | - | - |
| ***Total credits for Honours/Minor students:*** | | | | **-** | **-** | **-** | ***20+7*** | **-** | **-** | **-** | **-** | **-** |

** List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula*

**L= Lecture, T = Tutorials, P = Practicals & C = Credits;** **Contact hours per week : 25**

**Professional Elective-I / MOOCs-I:**
U18IT502A: Principles of Programming Languages
U18IT502B: Neural Networks
U18IT502C: Computer Graphics & Multimedia
U18IT502M: MOOCs- I Course

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**VI-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[6Th+2P+1MC+1Mini Project]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | MC | U18MH601 | Universal Human Values-II | 2 | - | - | - | 10 | 30 | 40 | 60 | 100 |
| 2 | OE | U18OE602 | Open Elective-III | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | PE | U18IT603 | Professional Elective-II/MOOCs-II | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | PCC | U18IT604 | Cryptography and Network Security | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | PCC | U18IT605 | Artificial Intelligence | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 6 | PCC | U18IT606 | Data Warehousing and Data Mining | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 7 | PCC | U18IT607 | Software Engineering | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 8 | PCC | U18IT608 | Data Mining using Python Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 9 | PCC | U18IT609 | Software Testing Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 10 | PROJ | U18IT610 | Mini Project | - | - | 2 | 1 | 100 | - | 100 | - | 100 |
| **Total:** | | | | **20** | **-** | **6** | **21** | **250** | **210** | **460** | **540** | **1000** |
| ***Additional Learning*:*** *Maximum credits allowed for Honours/Minor* | | | | - | - | - | **7** | - | - | - | - | - |
| ***Total credits for Honours/Minor students:*** | | | | **-** | **-** | **-** | ***21+7*** | **-** | **-** | **-** | **-** | **-** |

** List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula*

**L= Lecture, T = Tutorials, P = Practicals & C = Credits ;  Contact hours per week : 26**

| **Open Elective-III** | **Professional Elective–II / MOOCs-II** |
|---|---|
| U18OE602A : Disaster Management | U18IT603A: Distributed Computing |
| U18OE602B : Project Management | U18IT603B: Information Retrieval Systems |
| U18OE602C : Professional Ethics in Engineering | U18IT603C: Advanced Databases |
| U18OE602D : Rural Technology and Community Development | U18IT603M: MOOCs- II Course |

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**VII-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[4Th+2P+1MC+1 Major Project]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | HSMC | U18MH701 | Management, Economics & Accountancy | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 2 | PE | U18IT702 | Professional Elective-III/MOOCs-III | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | PE | U18IT703 | Professional Elective-IV/MOOCs-IV | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | PCC | U18IT704 | Internet of Things | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 5 | PCC | U18IT705 | Scripting Languages Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 6 | PCC | U18IT706 | Modeling and Project Management Laboratory | - | - | 2 | 1 | 40 | - | 40 | 60 | 100 |
| 7 | PROJ | U18IT707 | Major Project Work *Phase–I* | - | - | 6 | 3 | 100 | - | 100 | - | 100 |
| 8 | MC | U18IT708 | Internship Evaluation | - | - | 2 | - | 100 | - | 100 | - | 100 |
| **Total:** | | | | **12** | **-** | **12** | **17** | **320** | **120** | **440** | **360** | **800** |
| ***Additional Learning*:*** *Maximum credits allowed for Honours/Minor* | | | | - | - | - | **7** | - | - | - | - | - |
| ***Total credits for Honours/Minor students:*** | | | | **-** | **-** | **-** | ***17*+7** | **-** | **-** | **-** | **-** | **-** |

** List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula*

**L= Lecture, T = Tutorials, P = Practicals & C = Credits ;  Contact hours per week : 24**

| **Professional Elective–III / MOOCs-III** | **Professional Elective–IV / MOOCs-IV** |
|---|---|
| U18IT702A: Advanced Data Mining | U18IT703A: Machine Learning |
| U18IT702B: Cloud Computing | U18IT703B: Service Oriented Architecture |
| U18IT702C: Adhoc and Sensor Networks | U18IT703C: Digital Image Processing |
| U18IT702M: MOOCs-III Course | U18IT703M: MOOCs-IV Course |

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**SCHEME OF INSTRUCTION AND EVALUATION**
**VIII-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**

**[3Th+1 Major Project]**

| Sl. No. | Course Category | Course Code | Course Title | Hours per Week | | | Credits | Evaluation Scheme | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | | CIE | | | ESE | Total Marks |
| | | | | | | | | TA | MSE | Total | | |
| 1 | PE | U18IT801 | Professional Elective–V/MOOCs-V | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 2 | PE | U18IT802 | Professional Elective–VI/MOOCs-VI | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 3 | OE | U18OE803 | Open Elective – IV/MOOCs-VII | 3 | - | - | 3 | 10 | 30 | 40 | 60 | 100 |
| 4 | PROJ | U18IT804 | Major Project Work *Phase–II* | - | - | 14 | 7 | 40 | - | 40 | 60 | 100 |
| **Total:** | | | | **9** | **-** | **14** | **16** | **70** | **90** | **160** | **240** | **400** |
| ***Additional Learning*:*** *Maximum credits allowed for Honours/Minor* | | | | - | - | - | ***7*** | - | - | - | - | - |
| ***Total credits for Honours/Minor students:*** | | | | **-** | **-** | **-** | ***16+7*** | **-** | **-** | **-** | **-** | **-** |

** List of courses for additional learning through **MOOCs** towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula*

**L= Lecture, T = Tutorials, P = Practicals & C = Credits;** **Contact hours per week : 23**

| **Open Elective-IV/ MOOCs-VII** | **Professional Elective-V/ MOOCs-V** | **Professional Elective-VI / MOOCs-VI** |
|---|---|---|
| U18OE803A: Operations Research | U18IT801A: Computer Forensics | U18IT802A: Data Science |
| U18OE803B: Management Information Systems | U18IT801B: Big Data Analytics | U18IT802B: Predictive Analytics |
| U18OE803C: Entrepreneurship Development | U18IT801C: Blockchain Technologies | U18IT802C: Cyber Security |
| U18OE803D: Forex and Foreign Trade | U18IT801M: MOOCs-V Course | U18IT802M: MOOCs-VI Course |
| U18OE803M: MOOCs-VII Course | | |

**DEPARTMENT OF INFORMATION TECHNOLOGY**
**KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL – 15**
***(An Autonomous Institute under Kakatiya University, Warangal)***

**SCHEME OF INSTRUCTION AND EVALUATION**
**I-VIII-SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME**
**Semester Vs Course Category Weightage**
***(In terms of Total No. of Courses / Total No. of Credits)***

| Semester | Number of Courses / Number of Credits (*Course Category wise*) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | BSC | ESC | HSMC | PCC | OE | PE | PROJ | MC | B.Tech Programme Total | *B.Tech (Honours/Minor) Programme* |
| I | 3/9 | 5/10 | 1/3 | - | - | - | - | 1/0 | 10 / 22 | *Additional 20 credits through 8 courses out of the list of courses prescribed under Honours/Minor curricula* |
| II | 3/9 | 4/12 | - | - | - | - | - | 2/0 | 9 / 21 | |
| III | 2/7 | 1/3 | 1/1 | 5/11 | - | - | - | 1/0 | 10 / 22 | |
| IV | - | - | 1/1 | 5/12 | 3/8 | - | - | 1/0 | 10 / 21 | |
| V | - | - | 1/1 | 7/15 | - | 1/3 | 1/1 | - | 10 / 20 | |
| VI | - | - | - | 6/14 | 1/3 | 1/3 | 1/1 | 1/0 | 10 / 21 | |
| VII | - | - | 1/3 | 3/5 | - | 2/6 | 1/3 | 1/0 | 8 / 17 | |
| VIII | - | - | - | - | 1/3 | 2/6 | 1/7 | - | 4 / 16 | |
| Total | 8 / 25 | 10 / 25 | 5 / 9 | 26 / 57 | 5 / 14 | 6 / 18 | 4 / 12 | 7 / 0 | 71 / 160 | *(71+8) / (160+20)* |
| % Weightage of Course Category | 15.625 % (25/160) | 15.625 % (25 /160) | 5.625 % (9/160) | 35.625 % (57/160) | 8.75 % (14/160) | 11.25 % (18/160) | 7.5 % (12/160) | 0 % | 100% (160/160) | - |