DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.Tech. CSE - AUTONOMOUS - SCHEME (w.e.f. 2015-16)

of

(I, II, III, IV, V, VI, VII & VIII SEMESTERS)



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE WARANGAL-15

(An Autonomous Institution under Kakatiya University)

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION I- SEMESTER OF 4-YEAR B.TECH. DEGREE PROGRAMME COMMON FOR ALL BRANCHES OF ENGINEERING

| | | | | | Periods | , | | Evaluation Scheme | | | | | | |
|-------|-----------------|----------------|---------------------------------|----|----------|----|---------|--------------------------|-----|-------|-------|-------|--|--|
| S.No. | Course category | Course code | Course Name | | 1 errous | • | Credits | | CIE | ESE | Total | | | |
| | | | | L | Т | Р | | TA | MSE | Total | ESE | Marks | | |
| 1 | BS | 14MH101 | Engg. Mathematics – I | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 2 | ES | 14CS102 | Programming in 'C' | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 3 | BS | U14PH103 | Engineering Physics | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 4 | HS | 14MH104 | English for communication | 2 | - | 4 | 3 | 15 | 25 | 40 | 60 | 100 | | |
| 5 | ES | U14EI105 | Basic Electronics Engineering | 3 | - | - | 3 | 15 | 25 | 40 | 60 | 100 | | |
| 6 | ES | U14ME106 | Basic Mechanical Engineering | 3 | 1 | - | 3 | 15 | 25 | 40 | 60 | 100 | | |
| 7 | ES | U14CS107 | Programming in 'C' Laboratory | - | - | 3 | 2 | 15 | 25 | 40 | 60 | 100 | | |
| 8 | BS | U14PH108 | Engineering Physics Lab | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 | | |
| 9 | ES | U14ME109 | Engineering Workshop Practice | - | - | - | 2 | 40 | - | 40 | 60 | 100 | | |
| | | | Total | 17 | 4 | 10 | 27 | - | | 460 | 540 | 1000 | | |
| 10 | MC | U14EA110 | EAA. Physical Education and NSS | - | - | 2 | 1 | 100 | - | 100 | - | 100 | | |

MC - Mandatory Course

Student Contact hours/week : 33 Total Credits : 27

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION II-SEMESTER OF 4-YEAR B.TECH. DEGREE PROGRAMME COMMON FOR ALL BRANCHES OF ENGINEERING

| | Course | Course | | Periods | | | | Eval | uation S | cheme | | |
|--------|----------|--------|--|---------|---------|----|---------|------|----------|-------|-----|-------|
| S.No. | category | code | Course Name | | i errou | 15 | Credits | | CIE | | ESE | Total |
| 5.140. | category | code | | L | T | P | | TA | MSE | Total | LOL | Marks |
| 1 | BS | MH201 | Engg. Mathematics – II | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 2 | ES | CS202 | Object Oriented Programming (OOP) | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 3 | BS | CH203 | Engineering Chemistry | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 4 | ES | ME204 | Engineering graphics | 2 | ı | 4 | 4 | 15 | 25 | 40 | 60 | 100 |
| 5 | ES | EE205 | Basic Electrical Engineering | 3 | - | - | 3 | 15 | 25 | 40 | 60 | 100 |
| 6 | ES | CE206 | Basic Engineering Mechanics | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 7 | ES | CS207 | Object Oriented Programming (OOP) Laboratory | 1 | 1 | 3 | 2 | 40 | - | 40 | 60 | 100 |
| 8 | BS | CH208 | Engineering Chemistry Laboratory | 1 | 1 | 3 | 2 | 40 | - | 40 | 60 | 100 |
| | | | Total | 17 | 4 | 10 | 27 | - | - | 320 | 480 | 800 |
| 9 | MC | CH209 | Environmental Studies | 2 | - | - | 2 | 15 | 25 | 40 | 60 | 100 |
| 10 | MC | EA210 | EAA: Physical Education and NSS | - | - | 2 | 1 | 100 | - | 100 | - | 100 |

MC - Mandatory Course

Student Contact hours/week: 35 Total Credits: 27

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION

III - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME

COMPUTER SCIENCE & ENGINEERING

| | Course | | | Doric | Ac/M | Zools | | | Eval | Schem | cheme | |
|--------|----------|-------------|---|-------|-------|-------|---------|-----|------|-------|-------|-------|
| S. No. | | Course Code | Course Name | renc | ods/W | eek | Credits | | CIE | | ESE | Total |
| | Category | | | L | T | P | | TA | MSE | Total | ESE | Marks |
| 1 | BS | U14MH301 | Engineering Mathematics-III | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 2 | BS | U14MH302 | Discrete Mathematics | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 3 | ES | U14EI303 | Digital Circuits and Logic Design | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 4 | PC | U14CS304 | Computer Architecture and Organization | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 5 | PC | U14CS305 | Data Structures and Algorithms | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 6 | PC | U14CS306 | Object Oriented Programming through Java | 3 | 1 | - | 4 | 40 | 1 | 40 | 60 | 100 |
| 7 | PC | U14CS307 | Data Structures and Algorithms Laboratory | - | - | 3 | 2 | 40 | 1 | 40 | 60 | 100 |
| 8 | PC | U14CS308 | Java Programming Laboratory | - | - | 3 | 2 | 40 | ı | 40 | 60 | 100 |
| | | | Total | 18 | 6 | 6 | 28 | 1 | ı | 320 | 480 | 800 |
| 9 | MC | U14MH309 | Soft and Interpersonal Skills | - | - | 2 | 1 | 100 | ı | 100 | ı | 100 |

Student Contact Hours/Week : 32

Total Credits: 28

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION

IV - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME

COMPUTER SCIENCE & ENGINEERING

| S. | Course | Course | Course Name | Perio | de/M | look | | Evaluation Scheme | | | | | |
|------|----------|----------|--|-------|--------|--------|-----|--------------------------|-----|-----|-------|-----|-------|
| No. | Category | Code | Course Name | | 1 6110 | usj vi | CCK | Credits | | CIE | | ESE | Total |
| 140. | cutegory | Couc | | | L | T | P | | TA | MSE | Total | ESE | Marks |
| 1 | BS | U14MH401 | Engineering Mathematics-IV | | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 2 | PC | U14CS402 | Theory of Computation | | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 3 | PC | U14CS403 | Database Management Systems | | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 4 | PC | U14CS404 | Software Engineering | | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 5 | PC | U14CS405 | Operating Systems | | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 6 | PC | U14CS406 | Database Management Systems Laboratory | | - | 1 | 3 | 2 | 15 | 25 | 40 | 60 | 100 |
| 7 | PC | U14CS407 | Operating Systems Laboratory | | - | 1 | 3 | 2 | 40 | - | 40 | 60 | 100 |
| 8 | ES | U14EE412 | Basic Electrical and Electronics Engineering Laboratory | | - | 1 | 3 | 2 | 40 | - | 40 | 60 | 100 |
| | | | | Total | 15 | 5 | 9 | 26 | - | - | 320 | 480 | 800 |
| 9 | MC | U14MH409 | Compliance with Current English | | - | - | 2 | 1 | 100 | - | 100 | - | 100 |
| 10 | MC# | U14CH209 | Environmental Studies | | 2 | - | - | 2 | 15 | 25 | 40 | 60 | 100 |

Student Contact Hours/Week : 31+2#

Total Credits: 26

For Lateral Entry Students only

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION

V - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME

COMPUTER SCIENCE & ENGINEERING

| S. | Course | Course | (Ourse Name | Perio | Periods/Week | | | | Evaluation Scheme | | | |
|-----|----------|----------|---|-------|--------------|---|---------|-----|--------------------------|-------|-----|-------|
| No. | Category | Code | Course Name | | , | | Credits | CIE | | | ESE | Total |
| | | | | L | T | P | | TA | MSE | Total | ESE | Marks |
| 1 | PC | U14CS501 | Computer Networks | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 2 | PC | U14CS502 | Design and Analysis of Algorithms | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 3 | ES | U14EI503 | Microprocessors and Interfacing | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 4 | PC | U14CS504 | Language Processors | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 5 | PC | U14CS505 | Web Programming | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 6 | PC | U14CS506 | Language Processors Laboratory | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| 7 | PC | U14CS507 | Web Programming Laboratory | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 |
| 8 | ES | U14EI510 | Digital Electronics and Microprocessors Laboratory | - | - | 3 | 2 | 40 | 1 | 40 | 60 | 100 |
| 9 | PR | U14CS509 | Seminar | - | - | - | 1 | 100 | - | 100 | - | 100 |
| | Total | | | | | 9 | 27 | - | - | 420 | 480 | 900 |

Student Contact Hours/Week: 29

Total Credits: 27

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION

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

COMPUTER SCIENCE & ENGINEERING

| S. | Course | Carren | | Doric | ds/W | look | | Evaluation Scheme | | | | | | |
|------|--------------------|----------------|---------------------------------------|--------|----------|------|---------|-------------------|-----|-------|-------|-------|--|--|
| No. | Course Category | Course Code | Course Name | 1 6110 | jusj v v | eek | Credits | | CIE | ESE | Total | | | |
| 140. | Category | Couc | | L | T | P | | TA | MSE | Total | ESE | Marks | | |
| 1 | OE | U14OE601 | Open Elective-I | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 2 | PC | U14CS602 | Wireless and Mobile Communications | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 3 | PC | U14CS603 | Machine Learning | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 4 | PC | U14CS604 | Data Warehousing and Data Mining | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 5 | PE | U14CS605 | Cryptography and Network Security | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 6 | PC | U14CS606 | Professional Elective-I | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 7 | PC | U14CS607 | Data Analytics Laboratory | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 | | |
| 8 | PC | U14CS608 | GUI Programming Laboratory | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 | | |
| 9 | PR | U14CS609 | Mini Project | - | - | - | 2 | 40 | - | 40 | 60 | 100 | | |
| | | | 20 | 4 | 6 | 30 | - | - | 360 | 540 | 900 | | | |

Student Contact Hours/Week : 30

Total Credits : 30

Open Elective-I

U14OE 601A: Disaster Management U14OE 601B: Project Management

U14OE 601C: Professional Ethics in Engineering

U14OE 601D: Rural Technology and Community Development

Professional Elective-I

U14CS 606A: Advanced Databases

U14CS 606B: Computer Graphics and Multimedia

U14CS 606C: Embedded Systems

(An Autonomous Institute under Kakatiya University) SCHEME OF INSTRUCTION AND EVALUATION VII - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME

COMPUTER SCIENCE & ENGINEERING

| | Cauran | Carran | | Pori | ode/V | Veek | | Evaluation Scheme | | | | | | |
|--------|----------|----------------|--|--------|--------|------|---------|--------------------------|-----|-------|-----|-------|--|--|
| S. No. | Course | Course Code | Course Name | 1 (11) | ous, v | VCCK | Credits | CIE | | | ESE | Total | | |
| | Category | Code | | L | T | P | | TA | MSE | Total | LOE | Marks | | |
| 1 | OE | U14OE701 | Open Elective-II | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 2 | PC | U14CS702 | Middleware Technologies | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 3 | PC | U14CS703 | Cloud Computing | 3 | 1 | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 4 | PE | U14CS704 | Professional Elective-II | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 5 | PE | U14CS705 | Professional Elective-III | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 | | |
| 6 | PC | U14CS706 | Middleware Technologies Laboratory | - | - | 3 | 2 | 40 | 1 | 40 | 60 | 100 | | |
| 7 | PC | U14CS707 | Object Oriented Analysis and Design Laboratory | - | - | 3 | 2 | 40 | - | 40 | 60 | 100 | | |
| 8 | PR | U14CS708 | Major Project Work Phase- I | - | - | 7 | 4 | 100 | - | 100 | - | 100 | | |
| | | | 18 | 2 | 13 | 28 | - | - | 380 | 420 | 800 | | | |

Student Contact Hours/Week : 33

Total Credits: 28

Open Elective-II

U14OE 701A: Operations Research U14OE 701B: Management Information Systems U14CS 704B: Digital Image Processing

U14OE 701C: Entrepreneurship Development

U14OE 701D: FOREX and Foreign Trade

Professional Elective-II

U14CS 704A: High Performance Computing

U14CS 704C: Secure Software Engineering

Professional Elective-III

U14CS 705A: Soft Computing U14CS 705B: Design Patterns

U14CS 705C: Human Computer Interaction

(An Autonomous Institute under Kakatiya University)

SCHEME OF INSTRUCTION AND EVALUATION

VIII - SEMESTER OF 4-YEAR B.TECH DEGREE PROGRAMME

COMPUTER SCIENCE & ENGINEERING

| S. | | | | Perio | nds/V | Veek | | | Eval | uation S | Schem | e |
|------|--------------------|----------------|---|-------|-------|------|---------|----|------|----------|-------|-------|
| No. | Course Category | Course Code | Course Name | | | | Credits | | CIE | ESE | Total | |
| 110. | cutegory | Couc | | L | T | P | | TA | MSE | Total | | Marks |
| 1 | HS | U14MH801 | Management, Economics and Accountancy | 3 | 1 | 1 | 4 | 15 | 25 | 40 | 60 | 100 |
| 2 | PC | U14CS802 | Software Testing and Quality Assurance | 3 | 1 | ı | 4 | 15 | 25 | 40 | 60 | 100 |
| 3 | PE | U14CS803 | Professional Elective-IV | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 4 | PE | U14CS804 | Professional Elective-V | 4 | - | - | 4 | 15 | 25 | 40 | 60 | 100 |
| 5 | PC | U14CS805 | CASE Tools & Software Testing Laboratory | 1 | - | 3 | 2 | 40 | ı | 40 | 60 | 100 |
| 6 | PC | U14CS806 | Mobile Applications Development Laboratory | ı | - | 3 | 2 | 40 | ı | 40 | 60 | 100 |
| 7 | PR | U14CS807 | Major Project Work <i>Phase- II</i> | - | - | 13 | 7 | 40 | - | 40 | 60 | 100 |
| | | | Total | 14 | 2 | 19 | 27 | - | - | 280 | 420 | 700 |

Student Contact Hours/Week : 35

Total Credits: 27

Professional Elective-IV

U14CS 803A: Big Data Management

U14CS 803B: Information Retrieval Systems

U14CS 803C: Natural Language Processing

Professional Elective-V

U14CS 804A: E-Commerce

U14CS 804B: Semantic Web and Social Networks

U14CS 804C: Web Services