

B.Tech. Civil Engg (Spl in Smart Cities)

| Year : | | | | |
|---------|----------|---|----------------|----|
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | | Communication Skills for Engineers | I | 2 |
| 2 | | Multi Variable Calculus | I | 3 |
| 3 | | Semi conductor Physics / Biology for Engineers | I | 3 |
| 4 | | Basic Electrical & Electronics Engg. / Engineering Graphics | I | 3 |
| 5 | | Programming for Problem Solving - C | C | 3 |
| 6 | | YOGA / Environmental Impact Analysis | Mng | 2 |
| | | Total | | 16 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | | Linear Algebra & Differential Equations | T | 3 |
| 2 | | Discrete Mathematics / Engineering Mechanics | T | 3 |
| 3 | | Basic Electrical & Electronics Engg. / Engineering Graphics | I | 3 |
| 4 | | Semi conductor Physics / Biology for Engineers | I | 3 |
| 5 | | Engineering Workshop / Introduction of Digital System | I | 2 |
| 6 | | OOPS | C | 3 |
| 7 | | YOGA / Environmental Impact Analysis | Mng | 2 |
| | | Total | | 19 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | C1UC321T | Mathematics-III (Functions of Complex Variables and Transforms) | T | 3 |
| 2 | G1UA301T | Environmental Monitoring and Analysis | T | 2 |
| 3 | G1UA302B | Mechanics of Materials | I | 3 |
| 4 | G1UA303B | Fluid Mechanics | I | 3 |
| 5 | G1UA304C | Surveying | C | 3 |
| 6 | G1UA305B | Computer designs in Civil Engineering | I | 1 |
| 7 | K1UC320B | Communication Competency & Aptitude Building -1 | T | 1 |
| | | Total | | 16 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | C1UC421T | Probability and Statistics | T | 3 |
| 2 | G1UB401T | Demography for Smart Cities | T | 3 |
| 3 | G1UA401C | Construction Engineering | C | 3 |

| 4 | G1UA401B | Geotechnical Engineering | I | 3 |
|---------------|------------------|--|----------------|----|
| 5 | G1UA402B | Remote Sensing & Geographical Information System | I | 3 |
| 6 | G1UA403B | Structural Analysis | I | 3 |
| 7 | O1UA421B | Communication Competency & Aptitude Building -2 | T | 1 |
| | | Total | | 19 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | G1UA501B | Design of Reinforced Concrete Structures | I | 3 |
| 2 | G1UA502T | Water Supply & Treatment Systems | T | 3 |
| 3 | G1UA503C | Transportation Engineering | C | 3 |
| 4 | G1UA504T | Advanced Structural Analysis | I | 3 |
| 5 | G1UA505T | Advanced Materials for Smart Structures | T | 3 |
| 6 | G1UA510T | Smart Infrastructure systems | T | 3 |
| 7 | G1UA508R | Summer Internship | T | 0 |
| 8 | K1UC523B | Communication Competency & Aptitude Building -3 | T | 1 |
| 9 | G1UA306B | Design Thinking | I | 1 |
| | | Total | | 20 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | G1UB601T | Sustainable Transportation | T | 3 |
| 2 | G1UB604T | Urban Planning and Management | T | 3 |
| 3 | G1UB602B | GIS for Smart Cities | I | 3 |
| 4 | G1UB603B | AI and ML for Smart Cities | I | 3 |
| 5 | G1UA610B | Civionics | I | 1 |
| 6 | G1UA611B | Civil-3D Designs | I | 1 |
| 7 | G1UA612L | Technical Paper writing | PR | 0 |
| 8 | O1UA602B | Campus to Corporate | I | 1 |
| 9 | G1UA613B | Design Thinking-II | I | 1 |
| | | Total | | 16 |
| Year : | | | | |
| Subject | Code | Name of the Course | Type of Course | L |
| 1 | Will be provided | Program Elective - III | T | 3 |
| 2 | Will be provided | Program Elective - IV | T | 3 |
| 3 | Will be provided | Program Elective - V | T | 3 |
| 4 | G1UA703T | Construction Planning & Management | T | 3 |
| 5 | G1UA704C | Design of Steel Structures | T | 3 |
| 6 | G1UA706R | Capstone Phase-1 | PR | 0 |
| 7 | G1UA705R | Industrial Internship | PR | 0 |
| | | Total | | 15 |

| Year : | | | | |
|---------|------------------|--------------------|----------------|---|
| Subject | Code | Name of the Course | Type of Course | |
| | | | | L |
| 1 | Will be provided | Capstone Phase 2 | | 0 |
| | | Total | | 0 |

Total Credits 162

List of Program Electives

B.Tech Civil Engg (With Specilization in Smart Cities)

| Sr.No. | Course Code | Course Name | Course type | L |
|--------|-------------|---|-------------|---|
| 1 | New course | Sustainable Transportation | T | 3 |
| 2 | New course | Demography for Smart City | T | 3 |
| 3 | New course | Value Engineering and Valuation | T | 3 |
| 4 | New course | Infrastructure Development | T | 3 |
| 5 | New course | Metropolitan Planning, Development and Management | T | 3 |
| 6 | New course | GIS for Smart Cities | I | 3 |
| 7 | New course | AI & ML for Smart Cities | I | 3 |
| 8 | New course | Smart Infrastructure Systems | T | 3 |
| 9 | New course | Advanced Materials for Smart Structures | T | 3 |
| 10 | New course | Urban Planning and Management | T | 3 |

Total

| | | | | Semester I |
|-----------------|---|---|---------|--------------|
| Teaching Scheme | | | | Total Hrs |
| T | P | S | Credits | |
| 0 | 1 | 0 | 3 | 4 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 1 | 5 | 8 |
| 0 | 0 | 0 | 0 | 2 |
| 0 | 5 | 1 | 20 | 29 |
| | | | | |
| | | | | Semester II |
| Teaching Scheme | | | | Total Hrs |
| T | P | S | Credits | |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 1 | 0 | 4 | 4 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 3 | 4 |
| 0 | 1 | 1 | 5 | 8 |
| 0 | 0 | 0 | 0 | 2 |
| 0 | 4 | 1 | 22 | 29 |
| | | | | |
| | | | | Semester III |
| Teaching Scheme | | | | Total Hrs |
| T | P | S | Credits | |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 2 | 2 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 1 | 5 | 8 |
| 0 | 1 | 0 | 3 | 5 |
| 0 | 1 | 0 | 2 | 3 |
| 0 | 5 | 1 | 23 | 28 |
| | | | | |
| | | | | Semester IV |
| Teaching Scheme | | | | Total Hrs |
| T | P | S | Credits | |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 1 | 1 | 5 | 8 |

| | | | | |
|---|---|---|----|----|
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 2 | 3 |
| 0 | 5 | 1 | 25 | 32 |

Semester V

| Teaching Scheme | | | | Total Hrs |
|-----------------|---|---|---------|-----------|
| T | P | S | Credits | |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 1 | 1 | 5 | 8 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 2 | 3 |
| 0 | 1 | 0 | 0 | 3 |
| 0 | 3 | 2 | 24 | 31 |

Semeste VI

| Teaching Scheme | | | | Total Hrs |
|-----------------|---|---|---------|-----------|
| T | P | S | Credits | |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 4 | 5 |
| 0 | 1 | 0 | 2 | 3 |
| 0 | 1 | 0 | 2 | 3 |
| 0 | 1 | 0 | 0 | 2 |
| 0 | 1 | 0 | 2 | 3 |
| 0 | 1 | 0 | 0 | 3 |
| 0 | 7 | 0 | 20 | 30 |

Semester VII

| Teaching Scheme | | | | Total Hrs |
|-----------------|---|---|---------|-----------|
| T | P | S | Credits | |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 8 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 3 |
| 0 | 0 | 0 | 3 | 8 |
| 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 19 | 25 |

| | | | | Semester VIII |
|-----------------|---|---|---------|---------------|
| Teaching Scheme | | | | Total Hrs |
| T | P | S | Credits | |
| 0 | 0 | 0 | 9 | 0 |
| 0 | 0 | 0 | 9 | 0 |

| T | P | S | C |
|----------|----------|----------|----------|
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |
| 0 | 1 | 0 | 4 |
| 0 | 1 | 0 | 4 |
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |
| 0 | 0 | 0 | 3 |