**Programme Name: B. Tech - Computer Science and Engineering (Robotics & Artificial Intelligence)**

| 2026-2027 SEM-1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course Title** | **L** | **T** | **P** | **C** | **Int.** | **Ext.** | **Total** |
| MAT1001 | SC-Sci. | Differential Calculus | 4 | 0 | 0 | 4 | 50 | 50 | 100 |
| PHY1001/CHE1001 | SC-Sci. | Modern Physics / Engineering Chemistry | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| PHY1002/CHE1002 | SC-Sci. | Modern Physics Lab / Engineering Chemistry Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| ENG1001 | SC | English for Essential Communication | 2 | 0 | 0 | 2 | 50 | 50 | 100 |
| ENG1002 | SC | English for Essential Communication Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE1001 | SC-Engg. | Introduction to Programming | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE1002 | SC-Engg | Introduction to Programming Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| VAC1001/VAC1002 | **MNG** | Human Values and Ethics / Environmental Studies | 2 | 0 | 0 | 2 | 100 | 0 | ***S/NS** |
| SS1001 | SC-H&M | Quantitative Aptitude & Logical Reasoning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| EMC1001 | SC-E&M | Entrepreneurship Setup and Launch | 0 | 0 | 4 | 2 | 50 | 50 | 100 |
| **Total** | | | | | | **22** | | | **900** |

| 2026-2027 SEM-2 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course** | **L** | **T** | **P** | **C** | **Int.** | **Ext.** | **Total** |
| MAT1002 | SC-Sci. | Linear Algebra and Differential Equations | 4 | 0 | 0 | 4 | 50 | 50 | 100 |
| PHY1001/CHE1001 | SC-Sci. | Engineering Chemistry/ Modern Physics | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| PHY1002/CHE1002 | SC-Sci. | Engineering Chemistry Lab/ Modern Physics Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| ENG1003 | SC | English for Effective Communication | 2 | 0 | 0 | 2 | 50 | 50 | 100 |
| ENG1004 | SC | English for Effective Communication Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE1003 | SC-Engg | Problem Solving using Python | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE1004 | SC-Engg | Problem Solving using Python Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| VAC1001/VAC1002 | **MNG** | Environmental Studies/ Human Values and Ethics | 2 | 0 | 0 | 2 | 100 | 0 | *S/NS |
| ECE1001 | SC-Engg | Basics of Electrical and Electronics Engineering | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| ECE1002 | SC-Engg | Basics of Electrical and Electronics Engineering Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |

| Total | | | | 21 | | | 900 |
|---|---|---|---|---|---|---|---|

| 2026-2027 SEM-3 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course** | **L** | **T** | **P** | **C** | **Int.** | **Ext.** | **Total** |
| CSE2001 | SC-Engg | Data Structures and Algorithms | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| ECE2001 | PC -1 | Digital Logic Design | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2003 | SC-Engg | Object Oriented Programming using JAVA | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| MAT2001 | PC-2 | Discrete Mathematical Structures | 4 | 0 | 0 | 4 | 50 | 50 | 100 |
| ECS3001 | SC-Project | Engineering Clinics - System Design | 0 | 0 | 4 | 2 | 50 | 50 | 100 |
| SS2001 | SC-H&M | Advanced Quantitative & Analytical Reasoning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2002 | SC-Engg | Data Structures and Algorithms Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| ECE2002 | PC -1 | Digital Logic Design lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE2004 | SC-Engg | Object Oriented Programming using JAVA lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| SS2002 | SC-H&M | Industry Specific Communication | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| VAC2002 | **MNG** | Drug Abuse | 2 | 0 | 0 | 0 | 100 | 0 | *S/NS |
| **Total** | | | | | | **24** | | | **1000** |

| 2026-2027 SEM-4 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Marks Distribution | | | |
| **Course Code** | **Category** | **Course** | **L** | **T** | **P** | **C** | **Int.** | **Ext.** | **Total** |
| CSE2006 | PC-3 | Database Management Systems | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3001 | PC-4 | Computer Architecture and Organization | 4 | 0 | 0 | 4 | 50 | 50 | 100 |
| CSE3002 | PC-5 | Operating Systems | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3004 | PC-6 | Artificial Intelligence | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| MAT2002 | SC-Sci. | Applied Statistics | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| SS2003 | SC-H&M | Industry oriented Programming skills | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2007 | PC-3 | Database Management Systems Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3003 | PC-5 | Operating Systems Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3005 | PC-6 | Artificial Intelligence lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| VAC2001 | **MNG** | Co/Extra Curricular **[Clubs & Chapters]** | 0 | 0 | 2 | 1 | 100 | 0 | ***S/NS** |
| MAT2003 | SC-Sci. | Applied Statistics lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| **Total** | | | | | | 24 | | | **1000** |

| **Course Code** | **Category** | **Course** | **L** | **T** | **P** | **C** | **Int.** | **Ext.** | **Total** |
|---|---|---|---|---|---|---|---|---|---|
| IPS3001 | SC-Project | Summer Internship | 6-weeks training | | | 2 | 50 | 50 | 100 |

| 2026-2027 SEM-5 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course** | **L** | | **P** | **C** | **Int.** | **Ext** | **Total** |
| CSE2005 | PC-7 | Software Engineering | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-1 | Program Elective -1 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3006 | PC-8 | Design and Analysis of Algorithms | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-2 | Program Elective -2 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3008 | PC-9 | Computer Networks | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | OE-1 | Competitive Coding-1 / Any Open elective | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| VAC3001 | **MNG** | Indian Knowledge System | 1 | 0 | 0 | 1 | 100 | 0 | ***S/NS** |
| | PE-1 | Program Elective -1 Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3007 | PC-8 | Design and Analysis of Algorithms lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| | PE-2 | Program Elective -2 lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3009 | PC-9 | Computer Networks Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| **Total** | | | | | | **23** | | | **1100** |

| 2026-2027 SEM-6 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course Title** | **L** | **T** | **P** | **C** | **Int.** | **Ext** | **Total** |
| CSE3010 | PC-10 | Theory of Computation | 4 | 0 | 0 | 4 | 50 | 50 | 100 |
| | PE-3 | Program Elective -3 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4001 | PC-11 | Full Stack Development | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-4 | Program Elective -4 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | OE-2 | Competitive Coding-2/ Any Open elective | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| VAC3002 | **MNG** | Indian Constitution (Online NGCR) | 2 | 0 | 0 | 2 | 100 | 0 | ***S/NS** |
| FRL100x | SC | **Any one Foreign Language course** | 2 | 0 | 0 | 2 | 50 | 50 | 100 |
| | PE-3 | Program Elective -3 lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4002 | PC-11 | Full Stack Development lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| | PE-4 | Program Elective -4 lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| **Total** | | | | | | **23** | | | **900** |

| 2026-2027 SEM-7/8 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| **Course Code** | **Category** | **Course** | **L** | **T** | **P** | **C** | **Int.** | **Ext** | **Total** |
| CAP4001 | SC-Project | Capstone | 0 | 0 | 8 | 4 | 50 | 50 | 100 |
| | OE-3 | Any Open elective | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-5 | Program Elective -5 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-6 | Program Elective -6 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| | PE-5 | Program Elective -5 lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| | PE-6 | Program Elective -6 lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| **Total** | | | | | | **15** | | | **600** |

| 2026-2027 SEM-7/8 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Marks Distribution | | |
| Course Code | Category | Course Title | L | T | P | C | Int. | Ext | Total |
| IPS4001 | | Industrial Internship/ Senior Design Project | 0 | 0 | 20 | 10 | 50 | 50 | 100 |
| Total | | | 10 | | | | | | 100 |

## Specialization Electives

| Course Code | Course Title | L | T | P | C | Marks Distribution | | |
|---|---|---|---|---|---|---|---|---|
| | Any course to fulfil the basket requirements | | | | | Int. | Ext | Total |
| CSE2012 | Introduction to Machine Learning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2013 | Introduction to Machine Learning Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE2014 | Internet of Things | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2015 | Internet of Things Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE2020 | Robotics and its Applications | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE2021 | Robotics and its Applications lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3025 | Microprocessors and Microcontrollers | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3026 | Microprocessors and Microcontrollers Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3031 | Embedded Programming | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3032 | Embedded Programming Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3037 | Robotic Process Automation | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3038 | Robotic Process Automation Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE3047 | Digital Image Processing | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE3048 | Digital Image Processing Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4003 | Data Visualization | 3 | 0 | 0 | 3 | 50 | 50 | 100 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CSE4004 | Data Visualization Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4005 | Natural Language Processing | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4006 | Natural Language Processing Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4011 | Reinforcement Learning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4012 | Reinforcement Learning Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4023 | Sensors, Actuators and Signal Conditioning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4024 | Sensors, Actuators and Signal Conditioning Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4031 | Deep Learning | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4032 | Deep Learning Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4033 | Computer Vision and Robotics | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4034 | Computer Vision and Robotics Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |
| CSE4035 | Robot Operating System | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| CSE4036 | Robot Operating System Lab | 0 | 0 | 2 | 1 | 50 | 50 | 100 |

***S/NS – Satisfactory/Not Satisfactory**

## ADDS ON:

- **Industrial Workshop**
- **Industrial Visit**
- **Experiential Learning through Workshops and Expert Sessions**
- **Project Based Learning**
- **Capstone Project**
- **Hackathons**
- **Industrial Certification**
  - **CompTIA Network+**
  - **CompTIA Data+**
  - **CompTIA Security+**
  - **DELL Training**
  - **Oracle Academy**
  - **NASSCOM**
  - **NPTEL**
  - **Infosys Springboard**
  - **EC council**
  - **SAP**

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