



SAHRDAYA **AUTONOMOUS**
COLLEGE OF ENGINEERING & TECHNOLOGY

A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY | MANAGED BY IRINJALAKUDA DIOCESAN EDUCATION TRUST

Approved by AICTE & Affiliated to APJ Abdul Kalam Technological University | Accredited by:



PG Diploma In Data Science and Intelligent Systems

Curriculum (2025) - Semester I

Computer Science and Engineering

Branch Code: CSE

(SHR/AC/Auto/Acad. Council/PG.Diploma/2/Curri. /CSE)

Recommended by BoS on 11/06/2025

Approved by the Academic Council on 05/07/2025

The PG Diploma in Data Science and Intelligent Systems curriculum is meticulously drafted to cultivate industry-ready professionals endowed with creativity and innovative thinking. This comprehensive curriculum encompasses various components, including course work, miniproject, lab and dissertation work as specified for the programme. The curriculum is so drawn up that the minimum number of credits for successful completion of the PG Diploma programme is 40. The curriculum ensures a holistic education that prepares students for the dynamic field of Computer Science and Engineering. Below is a detailed overview of the curriculum:

- ☐ Core courses (Discipline core courses and Programme core courses)
- ☐ Research Methodology
- ☐ Laboratory work
- ☐ Skill Enhancement Course
- ☐ Dissertation/Research work

This curriculum is designed to seamlessly blend theoretical knowledge with practical experience and enhance employability through hands-on projects and internships, thereby preparing students for successful careers in Computer Science and Engineering.

Table 1: Distribution of credits among the Semesters

| Sem | Term | Course work content | Total credits allotted | Credits allotted semester - wise |
|-------------------------------------|-----------------|----------------------------|------------------------|----------------------------------|
| I | 1 (4 months) | Core courses: 4 nos | 4x4 =16 | 40 |
| | | Laboratory: 1 no | 1x2 = 2 | |
| | | Research Methodology: 1 no | 1x2 = 2 | |
| | 2 (2 months) | IntelAI Foundation Course | 1x4 = 4 | |
| | | Dissertation Phase | 1x16=16 | |
| Total credits in all four semesters | | | | 40 |

TERM I

| SLOT | COURSE CODE | COURSE NAME | MARKS | | L-T-P | HOURS | CREDIT |
|--------------|-------------|---|------------|------------|-------|-----------|-----------|
| | | | CIA | ESE | | | |
| A | 25DIST11 | ADVANCED ANALYTICS AND MACHINE LEARNING | 50 | 50 | 4-0-0 | 4 | 4 |
| B | 25DIST12 | DATA SCIENCE FOR ENGINEERS | 50 | 50 | 4-0-0 | 4 | 4 |
| C | 25DIST13 | CLOUD COMPUTING | 50 | 50 | 4-0-0 | 4 | 4 |
| D | 25DIST14 | ADVANCED DATA MINING | 50 | 50 | 4-0-0 | 4 | 4 |
| E | 25DISR10 | RESEARCH METHODOLOGY | 50 | 50 | 2-0-0 | 2 | 2 |
| F | 25DISL10 | COMPUTING LAB I | 100 | -- | 0-0-2 | 2 | 2 |
| Total | | | 350 | 250 | | 20 | 20 |

- L-T-P: Lecture-Tutorial-Practical
- CIA: Continuous Internal Assessment, ESE: End Semester Examination

TERM II

| SLOT | COURSE CODE | COURSE NAME | MARKS | | L-T-P | HOURS | CREDIT |
|--------------|-------------|---------------------------|------------|-----|--------|-----------|-----------|
| | | | CIA | ESE | | | |
| A | 25DISSEC20 | INTELAI FOUNDATION COURSE | 100 | | | | 4 |
| B | 25DISP20 | DISSERTATION PHASE | 100 | | 0-0-16 | 16 | 16 |
| Total | | | 200 | | | 16 | 20 |