



BON SECOURS COLLEGE FOR WOMEN(AUTONOMOUS)

Accredited with 'A++' Grade by NAAC in Cycle II
Affiliated to Bharathidasan University, Tiruchirappalli
UGC Recognized 2(f) and 12(B) Institution
Vilar Bypass, Thanjavur – 613 006

DEPARTMENT OF COMPUTER SCIENCE

B. Sc., DataScience

Vision:

Evolve into a center of excellence for teaching and research in computer science, addressing local and global societal needs and industry demands.

Mission:

- Offer multidisciplinary and interdisciplinary undergraduate, post graduate and research programs with a focus on societal research and industrial needs.
- Provide a conducive environment for learning, fostering the development of efficient employees and successful entrepreneurs.
- Establish strong, solution- oriented industry-academia partnerships for sustainable growth.
- Inculcate ethical values to contribute to holistic nation -building.

PROGRAMME OUTCOMES (POs)

On completion of the programme, the students will be able to

PO1: Demonstrate comprehensive knowledge and understanding of key concepts within the relevant in the field of Computer science.

PO2: Efficiently comprehend and critically evaluate the core aspects of Science and Technology including software development with fostering effective thinking.

PO3: Effectively communicate advanced educational experiences, evaluated to meet growing demands in science and technology, integrating multidisciplinary competencies.

PO4: Acquire analytical reasoning, problem-solving abilities, technical skills, and critical and reflective thinking through modern learning methods to enhance employability and entrepreneurship.

PO5: Create an encouraging environment for pursuing higher degrees in respective disciplines, promoting further knowledge application and lifelong learning.

PO6: Conceptualize a comprehensive foundation in, software development, networking and Hardware systems integrating technological advancements and digital literacy to enhance creativity.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO 1: Demonstrate a thorough understanding of data science principles, including data collection, cleaning, and integration, analysis, and visualization techniques. Apply statistical and computational methods to derive insights from complex data sets.

PSO 2: Exhibit proficiency in programming languages and tools commonly used in data science, such as Python, R, SQL, and data visualization tools. Develop the ability to adapt to and learn new software and programming languages as needed.

PSO 3: Apply machine learning and artificial intelligence techniques to model and solve real-world data-driven problems. Understand the theoretical foundations and practical applications of various machine learning algorithms.

PSO 4: Demonstrate strong analytical and critical thinking skills in evaluating data science methodologies and their implications. Make data-driven decisions based on rigorous analysis and interpretation of data.

PSO 5: Understand and apply ethical considerations and best practices in data science, ensuring the responsible use of data and compliance with privacy regulations. Communicate data insights effectively to both technical and non-technical stakeholders.

PSO6: Apply cooperation, teamwork, and leadership, enhance social responsibility towards community and national development, and apply knowledge to assess social, economic, legal, and cultural issues considering current contexts and responsibilities.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

The Programme will enable the graduates to

PEO1: Acquire in-depth knowledge of the discipline, coupled with technical skills, communication abilities, logical thinking, and problem-solving competence.

PEO2: Develop entrepreneurial and employability traits, functioning as responsible citizens with the ability to tackle challenging tasks, transform rural communities, and adapt to contemporary technologies.