



## **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**

#### **M. Sc., Computer Science**

##### **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 M.Sc programme, students will be able to:

**PO1:** Scientific Knowledge and Expertise: Demonstrate in-depth understanding of scientific theories, principles, and methodologies within their specialized discipline and recognize its impact on societal advancement.

**PO2:** Experimental and Problem-Solving Skills: Apply scientific reasoning and laboratory skills to design experiments, analyse data, and develop solutions to complex scientific and technological challenges

**PO3:** Research and Innovation: Engage in innovative, interdisciplinary research to address contemporary scientific issues, contributing to advancements in knowledge and technology with a focus on real-world applications

**PO4:** Environmental and Ethical Awareness: Act responsibly with a commitment to environmental sustainability, ethical standards in research, and social responsibility in scientific pursuits.

**PO5:** Digital and Technical Proficiency: Utilize digital tools, programming, and scientific software to conduct advanced research, data analysis, and problem-solving in their field.

**PO6:** Lifelong Learning and Collaboration: Commit to lifelong learning, fostering teamwork and leadership skills to work effectively in diverse and collaborative scientific environments

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

On Successful completion of the M.Sc. (Computer Science) degree programme, students will be able to

**PSO 1:** Advanced Technical Knowledge - Graduates will demonstrate expertise in advanced computing domains, including algorithm design, data structures, software development, and specialized areas like artificial intelligence, machine learning, and data analytics.

**PSO 2:** Research and Innovation - Graduates will develop the ability to identify, formulate, and analyze complex computing problems, contributing to research and innovation in fields like cloud computing, cyber security, sensor networks, and block chain.

**PSO 3:** Industry-Ready Skills - Graduates will acquire skills to design and develop efficient, scalable, and secure software solutions using modern tools and technologies, aligning with industry standards and emerging trends.

**PSO4:** Ethical Computing and Sustainability-Graduates will practice professional ethics and responsibilities, applying computing knowledge to solve societal problems while considering environmental sustainability.

**PSO 5:** Communication and Lifelong Learning - Graduates will enhance their technical and non-technical communication skills and engage in lifelong learning to adapt to evolving technologies in academia, industry, and entrepreneurship.

**PSO6:** Cross-Platform Development –Graduates will be proficient in building cross-platform applications, integrating frameworks like Flutter, React Native, and Xamarin, ensuring adaptability in modern mobile and web environments.

## **PROGRAMME EDUCATIONAL OBJECTIVES (PEO)**

The programme will enable the graduates to

**PEO1:** Enrich learners with in-depth disciplinary knowledge and essential skills to contribute to societal development and transformation.

**PEO2:** Enhance professional, employability, and entrepreneurial skills to achieve sustainability in a dynamic global environment.

**PEO3:** Foster values of environmental consciousness and responsibilities, promoting the empowerment and upliftment of rural communities

