## About the Faculty Development Programme

The Faculty Development Programme (FDP) aims to empower educators with knowledge and practical skills in Computational studies and Artificial Intelligence to improve pedagogy, curriculum design, student engagement, and assessment techniques. This programme will enable participants to integrate modern computational tools and AI-assisted technologies into the teaching-learning ecosystem.

Density Functional Theory (DFT) is one of the most widely used quantum mechanical modelling methods in Physics, Chemistry, and Materials science. Exposure to DFT allows educators to integrate modelling and simulation in promoting experiential learning. By understanding how physical systems behave at the quantum level, faculty can train students in a data-driven, conceptually rich learning environment. DFT represents a crucial computational tool that bridges theoretical concepts with real-world applications.

Artificial Intelligence (AI) is revolutionizing how knowledge is imparted, accessed, and assessed. AI is transforming classrooms through personalized learning, adaptive assessments, chatbots for academic assistance, and intelligent tutoring systems. Faculty must be equipped to harness these innovations to make their teaching more effective and learner-centric. This FDP would focus on integration of cutting-edge technologies to enrich the teaching-learning process. Participants would be equipped with tools, techniques, and understanding needed to harness AI and computational approaches in their day-to-day academic practices.
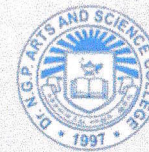
Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore
Approved by Government of Tamil Nadu & Accredited by NAAC with 'A++' Grade (3rd Cycle-3.64 CGPA)
Dr. N.G.P.-Kalapatti Road, Coimbatore- 641 048, Tamil Nadu, India.
Website: www.drngpasc.ac.in | Email: info@drngpasc.ac.in. | Phone: +91-422-2369100

CENTRE FOR PROFESSIONAL DEVELOPMENT

&

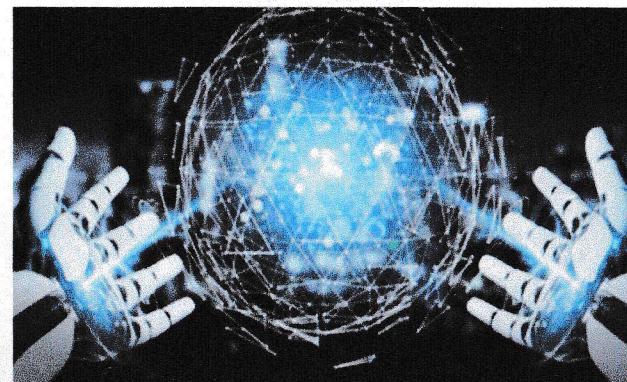## FACULTY OF BASIC OF APPLIED SCIENCES

DEPARTMENT OF PHYSICS AND CHEMISTRY

Jointly Organizes

FACULTY DEVELOPMENT PROGRAMME

on

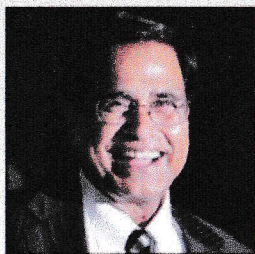## AI AND COMPUTATIONAL STUDIES IN TEACHING AND LEARNING PROCESS

Date : 5th, 6th & 9th June 2025
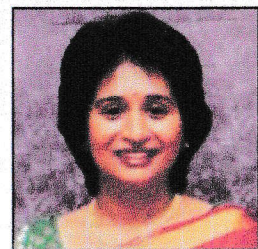**Venue** : A1 Block, Room No:427

Presidential Address
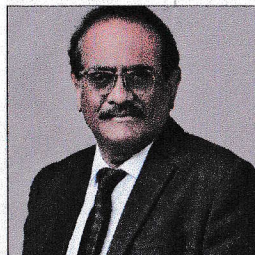
Resource Persons

Dr. A. S. Shanthi
Associate Professor
Department of Artificial Intelligence and Data Science
Dr. N.G.P. Institute of Technology, Coimbatore
Topic: Introduction to AI tools for teaching and learning
process - AI presentation Tools

Session: 05.06.25, FN

Dr. I. Devi
Assistant Professor
Department of Artificial Intelligence and Data Science
Dr. N.G.P. Institute of Technology, Coimbatore
Topic: Role of AI in Education

Session: 05.06.25, AN

Ms. S. Biruntha
Assistant Professor (SL.G)
Department of Artificial Intelligence and Data Science
Dr. N.G.P. Institute of Technology, Coimbatore
Topic: Empowering Digital Pedagogy with AI Tools: A Practical Approach using Infosys Springboard

Session: 06.06.25, FN

Dr. N. Premkumar
Assistant Professor (SL.G)
Department of Artificial Intelligence and Data Science
Dr. N.G.P. Institute of Technology, Coimbatore
Topic: The Future of Learning: Leveraging AI
Tools in Education

Session: 06.06.25, AN

Dr. Rajapandian Varatharaj
Assistant Professor
Department of Chemistry
Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore
Topic: Foundation of computational studies and electronic structure calculations

Session: 09.06.25, FN & AN