

B.TECH. CSE WITH SPECIALIZATION IN CYBER SECURITY

PROGRAMME EDUCATIONAL OBJECTIVES

PROGRAMME OUTCOMES

PROGRAMME SPECIFIC OUTCOMES

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND 4 IR TECHNOLOGIES

UNIVERSITY SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY

GAUTAM BUDDHA UNIVERSITY, GREATER NOIDA, UP, INDIA

PROGRAM EDUCATIONAL OBJECTIVES : B.TECH. CSE WITH SPECIALIZATION IN CYBER SECURITY

DAI4IRT PEO 1:

To develop students with in-depth knowledge of Cyber Security, Data Privacy, Risk Management, Artificial enabled cyber security and various other sub fields related to cyber security which will provide a strong foundation to pursue a career in education and IT industry for innovation, research and development.

DAI4IRT PEO 2:

To develop leadership qualities, to lead and work in a team in a professional environment, demonstrate professional integrity and feel responsibility towards the country at an appropriate level in order to address the issues in a responsive, ethical and innovative manner.

DAI4IRT PEO 3:

To excel in career involving higher order and challenging tasks and try to become a part of success and growth and work in collaboration with all organisation.

DAI4IRT PEO 4:

To produce students who are effective in multidisciplinary fields and environment by showing their active participation for betterment of the society.

DAI4IRT PROGRAM OUTCOMES : B.TECH. CSE WITH SPECIALIZATION IN CYBER SECURITY

DAI4IRT PO 1: Engineering Knowledge

Apply the engineering knowledge of mathematics, science, engineering fundamentals with engineering specialization to the solution of complex engineering problems.

DAI4IRT PO 2: Problem Analysis

Identify, formulate, analyse and give solutions to complex engineering problems by reaching to substantiated conclusion using first principles of mathematics, natural sciences, and engineering sciences.

DAI4IRT PO 3: Design and Development of Solutions

Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

DAI4IRT PO 4: Conduct Investigations of Complex Problems

Use practical-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

DAI4IRT PO 5: Modern Tool Usage

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including cryptography, various standard and new security protocols to complex engineering activities with an understanding of the limitations thereby making the interaction and storage of data more secure.

DAI4IRT PO 6: The Engineer and Society

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

DAI4IRT PO 7: Environment and Sustainability

Understand the impact of the professional artificial intelligence-based cyber security engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

DAI4IRT PO 8: Ethics

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

DAI4IRT PO 9: Individual and Teamwork

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

DAI4IRT PO 10: Communication

Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

DAI4IRT PO11: Project Management and Finance

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

DAI4IRT PO12: Life-Long Learning

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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DAI4IRT PSO1:

Experiment and prepare programming concepts and provide new ideas and innovations towards research and societal issues in the field of cyber security and social network security.

DAI4IRT PSO2:

Analyse and develop secure ways to store, send and process data which is continuously generated in this world of Internet of things and artificial intelligence. Efficient design of varying complexity can be made possible with the help of intrusion detection and prevention system, cryptography, and by providing physical security of IT infrastructure. Finally specify, design, develop, test and maintain usable systems that behave reliably and efficiently.

DAI4IRT PSO3:

Apply standard and advanced security providing algorithms and by using the approach of secure coding-based concepts, practices and strategies in order to develop sustainable products using AI-based technology to deliver a quality product for Business, Education, e-trade, Training and/or E-governance.