IT558 – Information Security (3-0-2: 4)

Lecture: TBA
Lab.: TBA

Instructor: Dr. Manik Lal Das
Office: 2103, Faculty Block 2,
Email: maniklal_das@daiict.ac.in

Objectives: The objective of this course is to understand principles and practices of computer and network security used in modern cyber-physical systems. The course primarily aims to provide training on system and network security, vulnerability assessment and prevention mechanisms in system and software, and risk management with security policy and ethical aspects. After completion of this course, students will be able to display in-depth understanding in computer security, network security, and managing security in real-world problems.

Course Contents:

- CRYPTOGRAPHY BASICS: Classical, Symmetric and Asymmetric Cryptography, Modern ciphers, Hash functions, Digital signature algorithms, Key management. [12 Lectures]
- COMPUTER SECURITY: Threats to security, System and Software security; Virus, Trojan, Worms, Memory exploits. [10 Lectures]
- SECURITY CONTROLS & POLICIES: Access controls, Security policies, Standards, Ethics in computer security. [8 Lectures]

TEXT BOOK:

REFERENCE BOOK:

Grading Policy (tentative):
One in-semester exam – 20%
End Semester Exam – 40%.
Projects and Lab experiments – 40%