

# FIN529 Computer Network and Network Security

**Level:** 5

**Credit Units:** 2.5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## Synopsis:

FIN529 Computer Network and Network Security focuses on introducing computer networks and providing an overview of network security. The first part of the course emphasises on giving an overview of the different computer networks. It appraises the different network topology and various types of network protocols. The functionalities of each layer of the network protocols are explained and elaborated. The network's Quality of service (QoS) metrics essential to achieve good network performance are discussed in this course. The second part of the course is centered on network security. It gives an introduction to cryptography and the key network security concepts. The course will expose a range of network security issues, risks and threats presence in the networks. Then, it moves on to discuss how these network security issues can be mitigated and managed. Overall, the course aims to provide an overview of computer network and network security, and the challenges and opportunities related to computer network and network security.

## Topics:

- Overview of Computer Networks
- Fiver Layer Reference Model
- Physical Layer, Link Layer & Medium Access Control Sublayer of Networks
- Network Layer, Transport Layer & Application Layer of Networks
- Quality of Service (QoS)
- Overview of Internet Security & Cryptography
- Network Access Control & Cloud Security
- System Security & Transport Layer Security
- Wireless Network Security & Electronic Mail Security
- Network End-Point Security & Internet of Things (IoT) Security

## Learning Outcome:

- Appraise the different computer networks
- Evaluate the various types of network protocols
- Analyse risks and threats to the computer system
- Assess and manage the security in networks
- Create a network meeting certain quality of service (QoS) requirements
- Construct a network security framework for an organisation

## Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	GROUP BASED ASSIGNMENT 1	40

Overall Continuous Assessment	PARTICIPATION 1	10
Overall Examinable Components	Written Exam	50
<b>Total</b>		<b>100</b>