HIGHER NITEC IN SECURITY SYSTEM INTEGRATION (3 YEARS)

CERTIFICATION

Credits required for certification:

Sector Foundation Modules	:	24
Cluster Core Modules	:	-
Specialisation Modules	:	33
Internship Programme Modules	:	12
Life Skills Modules	:	10
Cross Disciplinary Core Modules	:	9
Electives	:	8
Total	:	96

COURSE STRUCTURE

Module Title	Credits
SECTOR FOUNDATION MODULES	
Electrical & Cabling Technology	3
CAD & Soldering	3
Digital Electronics	3
Analogue Electronics	3
Programming Fundamentals	3
IoT Fundamentals	3
Networking & Communications Fundamentals	3
Cybersecurity Fundamentals	3
SPECIALISATION MODULES	
System Administration for Security System	3
Networking for Security System	3
Security Robotics	3
Intrusion Detection System	3
Access Control System	3
Smart Building Management	3
Video Surveillance System	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 1	4
SPECIALISATION MODULES	
Security System Integration	3
Project Management	3
AI for Security System	3
Cybersecurity for Physical System	3
INTERNSHIP PROGRAMME MODULES	
Internship Programme 2	8
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	

Last updated on 28 Nov 2025

Module Title	Credits
For details, click here	

Note: The offer of electives is subject to the training schedule of respective ITE Colleges. Students are advised to check with their Class Advisors on the availability of the elective modules they intend to pursue.

MODULE OBJECTIVES

Sector Foundation Modules

Electrical & Cabling Technology
On completion of the module, students should be able to set up, maintain and troubleshoot cabling systems.

CAD & Soldering
On completion of the module, students should be able to create and update CAD drawings, as well as build electronic prototypes.

Digital Electronics
On completion of the module, students should be able to set up and test digital electronic circuits.

Analogue Electronics
On completion of the module, students should be able to set up and test analogue electronic circuits.

Programming Fundamentals
On completion of the module, students should be able to apply programming constructs such as variables, programming syntax, sequential programming and control flow statements, in a programmable controller-based system.

IoT Fundamentals
On completion of the module, students should be able to configure, establish communication and process data from IoT environmental elements such as devices, nodes, gateways and cloud.

Networking & Communications Fundamentals
On completion of the module, students should be able to set up, configure, maintain and test computer and communication networks. They should also be able to identify the various network topologies and protocols, and troubleshoot network connectivity faults.

Cybersecurity Fundamentals
On completion of the module, students should be able to apply foundation knowledge and skills in basic cybersecurity controls, detect threats and vulnerabilities, implement security measures aligned with the key security information principles to protect system and device.

Specialisation Modules

System Administration for Security System
On completion of the module, students should be able to set up server operating systems and perform system administration tasks such as managing user accounts and groups. They should also be able to perform preventive maintenance and implement basic system security.

Networking for Security Systems
On completion of this module, students should be able to plan, install, configure and troubleshoot computer network system for the wired and wireless LAN environment.

Security Robotics
On completion of this module, students should be able to gain a basic understanding of how robotics system function and able to perform basic maintenance as well as operational tasks related to security robotic systems.

Intrusion Detection System
On completion of this module, students should be able to install, maintain and troubleshoot intrusion detection systems in various security environments.

Access Control System
On completion of this module, students should be able to install, maintain and troubleshoot access control systems in various security environments.

Smart Building Management
On completion of this module, students should be able to design and manage IoT-enabled smart building systems, integrate AI-driven security solutions in smart buildings, to optimize its efficiency and security.

Video Surveillance System
On completion of this module, students should be able to set up, maintain and troubleshoot surveillance systems.

Internship Programme Modules

Internship Programme 1
On completion of the module, students should be able to apply and integrate the skills and knowledge that they have acquired at ITE College and develop competencies in other areas not covered in the curriculum, at the workplace.

Specialisation Modules

Security System Integration
On completion of the module, students should be able to design and integrate a security system solution to meet customers' need and requirements.

Project Management
On completion of the module, students should be able to plan, execute and monitor security system project using the various project management tools and techniques to meet the project scope, schedule and cost requirements.

AI for Security Systems
On completion of the module, students should be able to apply their knowledge and skills in AI ethics and AI solution for security systems to propose and implement recommended AI features. These solutions will enable the use of advanced analytics to enhance physical security operations.

Cybersecurity for Physical System
On completion of the module, students should be able to establish awareness of good practices in cybersecurity, and understanding of cybersecurity threats and vulnerabilities, utilize technologies and tools to mitigate them. The students should also be able to configure, test and troubleshoot security solutions at host and device level.

Internship Programme Modules

Internship Programme 2
On completion of the module, students should be able to apply and integrate the skills and knowledge that they have acquired at ITE College and develop competencies in other areas not covered in the curriculum, at the workplace.

Electives (General) and Life Skills Modules
For details, click here.