



SKILL LAB

ON Cyber Security & Automation System For 7th Semester Students



KLS GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI Department of Computer Science & Engineering

Overview:

Cybersecurity involves protecting systems, networks, and data from digital threats, ensuring the confidentiality, integrity, and availability of information. Automation, on the other hand, uses technology to perform tasks with minimal human intervention, boosting efficiency in industries such as manufacturing, smart homes, and business processes.



Mode of Conduction of each Module: Offline

Theory:	10 Hours,
Demo:	10 Hours,
Lab Sessions:	16 Hours
Total duration:	36 Hours
Certification exam:	01 Hours

Module 1: Introduction to Cyber Security

Cyber security threats and best practices, Types of Cyber Attack, Concept and types of Scanning Methodology, Penetration Tests.

Module 2: Introduction to Automation in Cybersecurity

What is security automation? Benefits of automating security processes (efficiency, speed, accuracy), Automation Use Cases in Cybersecurity



Module 3: Cryptography and Firewalls

Introduction to cryptography, Cryptography and Cryptanalysis, Types of cryptography, Hash Cryptography, understanding digital certificates and signatures

Module 4: Web Application Security and Pentesting

Understanding of various HTTP methods, Kali Linux , Wireshark.

Terms and Conditions

Students who have paid a skill lab fee to the institution are eligible for training. The students must maintain 90% attendance for obtaining the skill lab certificate.

Students must attend training as per scheduled time.

Acceptance

In order to accept and start the training program, students are required to register with the respective department. Details to be provided by the student to the department include:

Name, USN, UID, Mobile No, Email id

Coordinator:

Name: Prof. Sagar Pujar
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Phone: 9902806192
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Prof. Pavan K
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Outcomes

- Practical Knowledge hands-on experience With cybersecurity.
- Threat Awareness cyber threats and Security trends .
- Security Automation security processes incident detection and response.