

CYBER SECURITY AND PRIVACY IN IOT LAB

Course Code : CSI 521

Credit Unit: 01

Total Hours: 30

Course Objectives:

- Understand key terms and concepts in cyber law, intellectual property and cyber-crimes, trademarks and domain theft.
- To understand important cyber security legal principles that need to be made as an integral component and part of the growth and further evolution of emerging technologies like Internet of Things.

Program List :

1. How implement security and privacy concerns in IOT: **(3 Hours)**
2. Implement Android-based Smartphone Security using IOT: **(3 Hours)**
3. How can do Stepping Stone Detection using IOT: **(3 Hours)**
4. How Broken Authentication and Session Management Vulnerabilities in IOT: **(3 Hours)**
5. Use of Computer Forensic Investigation and Cyber Terrorism: **(3 Hours)**
6. How is underlying architecture of internet of things is different from web of things explain with help of example: **(3 Hours)**
7. Construct a model to demonstrate working of network of communicating devices with help of suitable diagram: **(3 Hours)**
8. State the following with example: Public cloud, Private cloud, Hybrid cloud and Community cloud: **(3 Hours)**
9. Exemple of Identity based authentication in IOT: **(3 Hours)**
10. Exemple of public-key-based authentication in IOT: **(3 Hours)**

Course Outcomes :

Upon completion of this course, students will be able to:

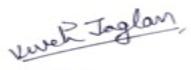
- Describe and analyze the hardware, software, components of a network and the interrelations.
- Explain networking protocols and their hierarchical relationship hardware and software. Compare protocol models and select appropriate protocols for a particular design.
- Manage multiple operating systems, systems software, network services and security. Evaluate and compare systems software and emerging technologies.
- Develop solutions for networking and security problems, balancing business concerns, technical issues and security.

Examination Scheme:

IA			EE			
A	PR	Practical Based Test	Major Experiment	Minor Experiment	LR	Viva
5	10	15	35	15	10	10

Note: IA –Internal Assessment, EE- External Exam, A- Attendance PR- Performance, LR – Lab Record, V –Viva.




Director-ASET
 Amity University Madhya Pradesh Gwalior

Text & References:

- Practical Internet of Things Security (Kindle Edition) by Brian Russell, Drew Van Duren Securing the Internet of Things Elsevier
- Security and Privacy in Internet of Things (IoTs): Models, Algorithms, and Implementations
- Thomas Erl, Ricardo Puttini, Zaigham Mahmood, Cloud Computing: Concepts, Technology & Architecture, Prentice Hall, 2013.
- Cyber Security Law Thoughts On IoT, AI & Blockchain by Pavan Duggal

