



# DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

## PROJECT PROPOSAL

### 1. Project Title: - Crypto-Jacking Detection Tool

- **Project Aim:** - Develop a robust tool capable of detecting crypto-jacking activities in computer systems, networks, and web applications. The tool will identify unauthorized cryptocurrency mining processes, mitigate the associated risks, and ensure optimal system performance and security.
- **Main parts of project:** - User Interface, Process Monitoring, Network traffic analysis, Scanning and injection Detection, Comprehensive Reporting.

### 2. Project Scope: -

#### 1. Crypto-jacking Detection:

- Identify unauthorized CPU or GPU utilization caused by cryptocurrency mining. Detect malicious JavaScript code embedded in web pages.

#### 2. Performance and Security Monitoring:

- Ensure minimal system performance degradation by managing crypto-jacking threats. Prevent sensitive information leakage through mining activities.

#### 3. Scalability and Versatility:

- Design the tool to handle individual systems, enterprise networks, and cloud environments.

#### 4. User Education and Awareness:

- Incorporate alert mechanisms and educational resources to help users identify and prevent crypto-jacking threats.

#### 5. Compliance and Security:

- Adhere to industry standards and privacy laws in data handling and



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threat analysis.

## 6. Continuous Updates:

- Regularly update detection algorithms and threat intelligence databases to adapt to emerging crypto-jacking methods.

## 3. Requirements :-

### • Hardware Requirements:

- **Processor:** Modern multi-core processor with virtualization support.
- **Memory (RAM):** Minimum 4 GB (8 GB recommended).
- **Storage:** 10 GB for installation and logs.
- **Network Interface:** Stable internet connection.

### • Software Requirements:

- Windows 10/11.
- **Programming Languages and Libraries:**
  - Python 3.x (main programming language).
  - **Libraries:** PyQt5 , socket , psutil , subprocess , time , threading etc.
- **Database:** SQLite, MySQL, or PostgreSQL (optional).
- **Development Tools:** PyCharm, Visual Studio Code.

## STUDENTS DETAILS

Name	UID	Signature
Rishi	21BCS11879	
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## APPROVAL AND AUTHORITY TO PROCEED

We approve the project as described above, and authorize the team to proceed.

Name	Employee ID	Signature(With Date)
Ms. Gurpreet Kaur	E16578	



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