

III) Network infrastructure:

-) owner: IT Department
-) Role: connectivity, communication, & data transfer
-) Risks:
 - network breaches
 - Data interception
 - Downtime & disruptions
-) Mitigation strategies:
 - Firewalls & intrusion detection.
 - secure protocols (HTTPS, SSH)
 - Regular network monitoring & updates.

IV) Software: Algorithms:

-) owner: Research Team/developers.
-) Role: Data analysis, simulation, & modelling
-) Risks:
 - intellectual property theft
 - Licensing breaches
 - Error or biases
-) Mitigation strategies:
 - Licensing agreements & contracts.
 - Secure code repositories.
 - Peer review & testing.

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ISM ASSIGNMENT

I) Computer System

- Owner: IT Department
- Role: Data analysis, research & communication
- Risk: Cybersecurity threats, data breaches, or system failure
- Mitigation strategies: Regular updates, antivirus software, firewalls, access controls, & data backups

II) Sensitive Research Data

- Owner: Researcher team
- Role: Data collection, analysis & storage
- Risk: Data loss or theft.
 - Unauthorized access
 - Compliance breaches
- Mitigations
 - Regular maintenance & ~~cost~~ calibration
 - Secure storage & access control.
 - Training & safety protocols.

V) Confidential Documents

- * owner: Faculty / Staff
- * Role: Research, administrative & personnel records.

* Risks

- Unauthorized access.
- Data breaches
- Compliance breaches.

* Mitigation strategies

- Secure storage & shredding
- Access controls & authentication
- Encryption & digital signatures.

VI) Servers

- * owner: System Administrator

- * Role: Hosting applications, data storage, & backups.

* Risks: Downtime, data breaches

- * Mitigation: Implementing redundancy, regular security updates & monitoring.

VII Cabling & Connectivity Equipments

- * owner: Network Technician
- * Role: connecting devices to the network
- * Risks: Poor organization leading to hazards, connection failures.
- * Mitigations: Proper cable management & regular inspections.

VIII Security Systems (e.g. firewalls, antivirus)

- * owner: Security Officer
- * Role: Protecting systems from threats.
- * Risks: cyberattacks, malware infections
- * Mitigations: Regular updates, employee training on security practices, & monitoring.

ix Power supply unit:

- * owner: Lab technician
- * Role: providing backup power during outages
- * Risks: Failure during power loss
- * Mitigation: Regular testing & maintenance.

XIII) Printers & scanners

- * owner: IT Department
- * Role: Printing & scanning services
- * Risk: Data theft, unauthorized access
- * Mitigation strategies: secure print jobs, restrict access.

XIV) Password management systems

- * owner: IT Department
- * Role: Secure password storage
- * Risks: Password compromise, unauthorized access.
- * Mitigation strategies: Implement multi-factor authentication, regular password updates.

XV) Routers & switches

- * owner: IT Department
- * Risk: Network breach, downtime
- * Role: manage network connectivity.
- * Mitigation: Regular firmware updates secure configuration.

XIII) Productivity software (eg. Microsoft Office)

- Owner: IT Department
- Risk: Licensing breaches, data theft
- Role: Support productivity & document creation
- Mitigation: License management, access controls.

XIV Lab schedules & calendars:

- Owner: Lab Administrators
- Risk: Data loss, scheduling conflicts.
- Role: manage lab resources & scheduling
- Mitigation: Regular backups, access controls.

XV Lab Access & Security Protocols:

- Owner: Lab administrator
- Risk: Unauthorized access, security breaches
- Role: Ensure secure access to lab resources
- Mitigation: Regular reviews, updates.