SIKKIM MANIPAL UNIVERSITY

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Revision History

S. No.	Ver. No.	Release Date	Prepared by	Reviewed by	Approved by	Reasons for New Release
1	V1.0	01-08-2019	Head -IT	Registrar (SMU)	Vice Chancellor (SMU)	ISMS Implementation

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SIKKIM MANIPAL UNIVERSITY

Information Access Control Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

This policy defines the controls that need to be implemented and maintained to protect information and information assets of SMU against unauthorized access that poses substantial risk to the organization.

2. Abbreviations

Abbreviations	Description
AAA	Authentication, Authorization and Accountability
AD	Active Directory
Security Admin	Security Administrator
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
MDM	Mobile Device Management

3. Purpose

The purpose of this policy is to define the controls to:

- Restrict access to information and information assets as per University /Institutions requirements and prevent unauthorized access to information IT assets (e.g. systems, network services, operating systems and information held in databases and application systems).

4. Scope

This policy is applicable to all IT Assets of University/Institution. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the Institution. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees including Faculties / Non-teaching staff, outsourced manpower and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owners of this policy is the Head – IT. He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head – IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review & Approval of this document

6. Policy Description

Access to the information assets of SMU shall be controlled based on institutions and security requirements. Privileges granted shall be based on 'need-to-know' and 'need-to-perform' criteria.

User Access Management

- A user registration and de-registration process, including seeking appropriate approvals, shall be defined for granting employee /Staff access to any information systems at Institution.
- Access control shall be determined by the Institutes requirements and security classification of information assets and resources to which access is required
- Access privileges shall be assigned to a unique user ID (AD/Employee ID etc.) that is mapped to an employee based on the employee's role and responsibility.
- Audit trails for all requests for additions, modifications or deletions of user accounts/IDs and access rights shall be maintained and
- An annual review of the access privileges granted to user accounts/ID shall be carried out to identify and facilitate removal/deactivation of inactive accounts.

User Responsibilities for Access Management

- Employees shall be required to maintain a clear desk and lock the screens of their systems prior to leaving them unattended.
- Employees shall set strong alphanumeric passwords and refrain from sharing them by any means
- Employees shall change their passwords on a periodic basis or as per system settings or if there is an indication of a possible compromise of the systems or passwords.
- Passwords for privileged accounts such as system administrator shall be changed once a year, whereas normal user passwords shall be changed every 90 days
- Employees or other third parties shall notify Head IT or Security Administrator or itsupport@smu.edu.in in case of any security breach.

Clear Desk & Clear Screen Policy

- Users shall "log off" or “lock” their computers when their workspace is unattended.
- Users should "shut down" their desktop computers at the end of the workday.
- All ‘Highly Restricted’ and/or ‘Confidential’ information in printed form/hard copy shall be removed from the desk and locked in a drawer or file cabinet when the workstation is unattended and at the end of the workday.
- File cabinets containing ‘Highly Restricted’ and/or ‘Confidential’ information shall be locked when not in use or when not attended.
- Keys used to access ‘Highly Restricted’ and/or ‘Confidential’ information shall not be left at an unattended work area.
- Passwords shall not be posted on or under a computer or in any other accessible location.
- Documents containing Highly Restricted, Confidential or Internal use information must be immediately removed from printers, photocopiers.

Unattended User Equipment

All employees and third parties of the Institutes having access to the information systems shall be required to:

- Terminate active sessions when finished or implement.
- Logout from the workstation, servers and/or network devices when session is over.
- Keep laptops and other mobile devices securely in public areas or in office, if away for a long period.

Network Access Control

- Appropriate interfaces shall be created to segregate the network of SMU from the networks owned by other organization and public networks.
- Appropriate controls for user authentication and access to the network, network services and information systems shall be applied to the SMU network
- Users shall only be provided with access to the services that they have been specifically authorized to use.
- Authorized users shall be permitted to establish remote connections to SMU network using secure channels.
- A unique identifier for all equipment within the network shall assigned and the same to be used to authenticate all equipment connecting to the network at SMU.
- The network at SMU shall be divided into separate logical network domains. Each network domain shall be protected by appropriate logical security controls.
- For shared networks, especially those extending across the boundaries of SMU, the capability of users to connect to the network shall be restricted, in line with the requirements of university applications.
- Only file transfer applications that encrypt the communication channel shall be used to download or upload files to known secure entities on the internet subject to need based approval.

- Routing controls shall be implemented for networks to ensure that computer connections and information flows do not breach the access control policy of the business applications
- The use of utility programs that might be capable of overriding system and application controls shall be restricted and tightly controlled and monitored.
- External use of remote-access software must be limited to authorized technical support employees
- User sessions shall be managed so as to limit the connection time to sensitive information systems and applications. Additionally, sessions shall be disabled after completion of activity, unless defined otherwise based on system limitations.

Operating System Access Control

- Appropriate logical access to the operating system shall be restricted to authorized users only
- Operating system of servers, workstations and/or network devices shall be controlled through a log-on procedure. The log-on procedure shall not disclose any information of the system. The remote log-on procedure shall be designed with consideration of encryption of information during its transmission
- All employees, contractors, suppliers, vendors and/or third parties of SMU/ Institutions having access to the information systems shall be issued a unique log-in identifier which is not sharable / transferable to the other person.
- An authentication system such as AD shall be implemented to authenticate users.
- Wherever required, additional authentication mechanisms such as tokens, two factor authentication, smart cards etc. should be used
- Information systems and applications that are accessed from external networks and internet shall be equipped with session time-out control to clear the session screen and terminate both the application and network sessions after completion of activity, unless defined otherwise based on system limitations.

Application and Information Access Control

- Appropriate logical access to the application software shall be restricted to authorized users.
- Access to information and application system functions (menu tabs, access rights or similar) by users and support personnel shall be restricted

Mobile Computing & Communication

- Employees shall be allowed to remotely connect to the network using mobile computing device to access official information, only after successful identification and authentication.
- Employees shall be required to take special care of the mobile computing devices such as laptops, smart devices, mobile phones to prevent compromise and/or destruction of university information.
- Latest virus definitions shall be regularly updated on company provided laptops and desktops to prevent corruption of official data.
- Adequate firewall and/or MDM solution shall be implemented on mobile devices with appropriate SMU policies implemented on them
- Third Party staff shall not connect their mobile computing devices to wired or wireless network of Institute, unless explicitly authorized by appropriate authority (SMU).

Teleworking

Adequate teleworking security measures shall be established and implemented, including:

- Establishing a secure communication channel between teleworkers and network of Institution.
- Use of appropriate authentication mechanism for authenticating those using teleworking solutions
- Revocation of authority, access rights and return of equipment when teleworking activity ceases or when the employee exits from Institute.

Physical Access to Server Rooms and other Facilities

- Data Centre/Server Room and all critical data points shall be physically secured, to prevent a break-in/unauthorized entry.
- Entry into the data centres/server rooms shall be restricted to authorized personnel only with approvals of respective Function Heads who shall do the necessary verification/diligence checks.
- Entry to data centre / Server room for external vendors who require to work on the maintenance or repair of the equipment of data centre shall be allowed in with escort, throughout their stay, by the physical security staff or respective activity owner.
- Secure authentication through biometric reader shall be installed at all critical entry points such controller examination office etc.
- CCTVs and alarms shall be set up at all data centres/server rooms
- CCTV/Biometric access shall be monitored, and recordings/logs reviewed weekly for any alerts and maintained for a minimum of 10 days
- In the absence of CCTV surveillance, a security person should be deployed at the entrance of the Data Centre / Server Room
- A register to record and monitor entry and exit to and from the data centre / server room shall be maintained by the Security personnel
- Data centre/server room access control system and doors shall be designed to operate in case of utility power outage as well as biometric application/hardware failure
- Management of security alarms, CCTV systems and visitor book details shall be restricted to security staff and Facilities staff only
- A yearly reconciliation of physical access rights to the data centres/server rooms shall be conducted and any discrepancies shall be communicated to the respective functions for further appropriate action

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

IT Asset Management Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

Information assets created, received, or distributed by SMU need to be protected against threats. This necessitates identification of information asset, asset owner, asset custodian, asset classification and determining confidentiality, integrity and availability ratings of the asset and then finally computing the asset value. Additionally, they need to be classified and labelled according to predefined levels of criticality and sensitivity. Safeguards and controls need to be designed to protect information assets from unauthorized access, distribution, destruction or disclosure.

2. Abbreviations

Abbreviations	Description
A	Availability
C	Confidentiality
Security Admin	Security Administration
I	Integrity
ICT	Information and Communication Technology
IP	Intellectual Property
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
PII	Personally, Identifiable Information
SBI	Sensitive University Information
SPI	Sensitive Personal Information

3. Purpose

The purpose of this policy is to ensure:

- An Information Asset Register documenting types of information assets of each University function is maintained.
- The information assets of each Institution's function have designated owners and custodians.
- All information assets are identified and appropriately labelled.
- These information assets are handled by authorized persons in a manner that ensures their protection.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the Institute. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees including teaching / non-teaching staff, Outsourced and third party's role of SMU must adhere to this policy in conjunction with all other policies of SMU-ISMS.

5. Roles & Responsibilities

The owner of this policy is the Head IT, He shell be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Asset Owner	The Head of a Function is generally considered to be an Asset Owner. He/she is responsible for the identification, classification and rating of the assets that are being used/managed in the function and further to ensure that Asset Custodians implement appropriate controls for the protection of the asset.

Asset Custodian	An Asset Custodian is the person responsible for day-to-day operations/maintenance of assets. He/she should manage the entire asset lifecycle.
Head IT	Creation and update of this policy as per requirement.
Registrar (SMU)	Review & Approval of this document.

6. Policy Description

Information assets of SMU shall receive comprehensive protection and shall have an identified Asset Owner and Asset Custodian, also have appropriate labelling and handling mechanisms.

Information Asset Register

The IT Asset Register documents the information assets of a function. All functions are required to maintain such a register. The Information Asset Register is required to contain, at a minimum, the following information about the assets:

- Name of the function that uses this asset
- The Name, Type (Hardware, Software, Information, Infrastructure, People), Description and Location of the asset.
- The Asset Owner and Asset Custodian.
- The C, I, A ratings of the asset.
- The Asset Value computed as the product of the C, I, A values.

Ownership of Information Assets

The Asset Owner is required to ensure that he/she discharges the responsibilities as described in the *Roles & Responsibilities* section above.

Further, he/she shall periodically check to ensure that information assets continue to be classified appropriately and that the safeguards remain valid and operative.

Information Classification

The information classification categories shall be used to define an appropriate level of protection or special handling needed for the information asset. The classification of the information needs to be consistent with the University requirement and takes into account 'Confidentiality', 'Integrity' and 'Availability' ratings of the information. The classification is done as per the table below:

Classification Level	Types of Information Assets	Examples
Highly Restricted	Personally, Identifiable Information (PII), Sensitive Personal Information (SPI), Intellectual Property (IP), Sensitive University Information (SBI)	PII - Name, Address, Phone number etc., SPI -Health Records, Biometric Records etc., SBI - Trade secrets, Acquisition plans, Financial data.
Confidential	On need to know basis only, for named Employees/Customers/Vendors/Contractors etc. (applicable to both Internal and External Information)	Agreements, Contracts, Purchase Orders etc.
Internal	Information meant to be used/circulated within the Organization	ISMS, Applications to be used by employees etc.
Public	Any information that can be shared with everyone	Certifications, Affiliations, Achievements, Organization website etc.

Information Asset Labelling

All information assets should be labelled. The asset owners are required to ensure that their assets are appropriately labelled for ease of identification. Refer *Information Asset Management Process* for details of the methods used for asset labelling and handling.

Acceptable Use of Information Assets

All information assets shall be limited to University purposes only. SMU (IT) reserves the right to monitor and report this usage (please refer *Information Security Incident Management Policy*).

The following are deemed unacceptable uses of information assets of SMU and its colleges.:

- Transmitting, modifying or otherwise removing information from the office for personal/ malicious use, that contravenes the privacy of customers and SMU personnel and SMU intellectual property.
- Wasting computer resources or monopolizing those resources to the exclusion of other users
- Propagating malware
- Engaging in activities that disrupt network communications and/or system availability
- Circumventing user authentication or authorization on any system
- Installing and/or using unlicensed or non-approved software, data and hardware.
- Connecting any hardware that is unapproved, to the network of SMU colleges and
- Other activities that are deemed unacceptable by the HR, Facilities or other function and that are illegal

Further:

- Only information assets (e.g. desktops, laptops, or any other ICT device) managed or approved by SMU shall be used to store, transmit and/or connect to the institute's internal network
- Formal approval should be obtained from Head IT and/or Registrar (SMU) before any information assets that are not managed by SMU are used to connect to the network
- Where approval has been obtained, any information assets that are not managed by SMU (IT) (e.g. personal devices such as smart devices, tablets etc.) are used to connect to the Institute's network, is subject to SMU'S IT security requirements set out for:

- viruses and other malware
- ICT devices
- wireless networks
- remote access and
- messaging and internet use
- Prior to information being taken away from the office, the following should be considered:
- sensitivity of the information.
- potential impact of loss or disclosure of the information and
- precautions that need to be taken to avoid loss or disclosure.
- Encryption or an equivalent method of protection should be used to secure sensitive information of SMU Colleges when:
- Transmitted over non-corporate networks such as the internet and social media platforms and
- Stored on ICT devices and removable media

Information Asset Retention and Disposal

All information assets classified as Highly Restricted, Confidential, Internal or Public should be provided with a retention timeframe.

The retention schedules are defined by the Asset Owners. The assets are retained as follows:

- Information in electronic format must be stored in an encrypted format and/or must be protected with strong passwords.
- Information assets such as documents and records, which are present in a physical format, must be stored only in locked drawer or cabin.
- Information must be disposed when no longer needed subject to its retention schedule. Approval of Asset Owner is required if information is disposed by a person other than the Asset Owner.
- Physical and electronic copies should be stored and disposed as per the *Information Asset Management Process*.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Information Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

It is the policy of Sikkim Manipal University (hereafter referred to as 'SMU') that its information assets are provided comprehensive protection against the consequence of breaches of confidentiality, failure of integrity and/or interruptions to their availability. The SMU Information Security Policy provides management, the direction and support to implement information security across the organisation.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
ISMS	Information Security Management System

3. Purpose

The purpose of the Information Security Policy is to ensure the University continuity of SMU and to minimize the risk of damage by preventing security incidents and reducing their potential impact.

4. Scope

The SMU Information Security Policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU. Anyone having questions regarding this policy shall consult with the SMU Information Security core team.

5. Roles & Responsibilities

The owner of this policy is the Head IT. He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document

6. Policy Description

Policy Objective

The objective of information security is to ensure the University continuity of SMU and to minimize the risk of da preventing security incidents and reducing their potential impact.

Policy Statement

SMU Information Security Policy aims to protect the information assets of SMU against all internal and external threats.

The security policy ensures that:

- Information is protected against unauthorized access.
- Confidentiality of information is ensured.
- Integrity of information is maintained.
- Availability of information for University processes is ensured.
- Legislative and regulatory requirements are met.
- Information Security risks are identified and managed in accordance with the framework defined by SMU.

- University continuity plans are developed, maintained and tested, as applicable.
- Periodic Information security training and awareness is conducted for all employees.
- All actual or suspected information security breaches are reported and managed in accordance with the defined incident management framework.

The Vice Chancellor of the University has approved the information security policy. The Head IT is responsible for maintaining the policy and providing support and advice during its implementation. Associated policies as well as processes exist to support this policy.

This policy and its supporting policies shall be reviewed by Management for suitability to the organization at least once a year.

This policy allows users to access information and essential services when needed. All Heads OF respective functions are directly responsible for implementing this policy and ensuring staff compliance in their respective functions. Compliance with the Information Security Policy is mandatory.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

IT Operations Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

The Operations Security Policy is designed to ensure appropriate security controls such as, but not limited to, documented operating procedures, data backup, protection against malicious code, secure exchange of information, etc. are implemented for the hardware and software assets of Sikkim Manipal University (herein referred to as 'SMU') to prevent unauthorized access to, misuse or failure of systems so as to ensure confidentiality, integrity and availability of information.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
ISMS	Information Security Management System

3. Purpose

The purpose of this policy is to define and implement appropriate controls to prevent unauthorized access to, misuse or failure of various systems so as to ensure confidentiality, integrity and availability of information.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be hardware, software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT. He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head of IT	Creation and update of this policy document
Registrar (SMU)	Review and Approval of this document

6. Policy Description

SMU shall ensure effective and secure operations of its information systems. Appropriate controls shall be implemented to protect the information contained in, transmitted by and/or processed by these information systems and ensure their uninterrupted operation.

Operating Procedures

- Standard Operating Procedures and responsibilities for all SMU information processing facilities shall be formally authorized, documented, maintained and reviewed annually.
- SOPs could include those pertaining to, but not limited to, email, firewall or server configuration, hardware and other equipment etc.
- Changes to the SOPs shall be carried out as per the change management process.

Change Management

- Change Management shall be implemented in order to be applicable to any change that could impact confidentiality, integrity or availability of information processed by or stored in the information systems. This shall, at a minimum, include the following:
  - Assessment of potential impact, including security impact

- Identification of person authorizing change
- Formal approval process for proposed changes
- Procedures for testing, including security testing of the changes
- Communication of details of changes to all affected parties
- Recording of all changes
- Roll-back procedures for aborting or recovering from failed changes

- Changes to any system shall be monitored for compliance with established process
- Change controls shall be applied to all security related aspects of SMU production environment
- All approved changes to the critical systems shall be tested prior to implementation
- All third-party service providers shall follow change management as described above.

Separation of development, test, and operational facilities

- Appropriate security controls shall be identified and implemented to ensure logical separation between development, test and production environments.

Protection against Malware

- IT shall manage Endpoint Security
- Antivirus administration shall be managed through a centralized system
- Further, IT shall manage controlling of the updates, reporting and monitoring to all the endpoints from the centralized antivirus management console.
- Online antivirus scan shall be configured on desktops, laptops and servers in SMU
- All desktops and laptops shall have advanced threat protection enabled to protect from malicious traffic
- The Antivirus server configured to monitor any non-updated clients and virus outbreaks/infection alerts on a daily basis
- If any infection is found within the network, an alert shall be immediately generated by the Antivirus server and suitable action shall be initiated on priority to fix the same if not resolved by Antivirus Signatures

- Status report shall be generated on a weekly basis.
- Antivirus signature update in all SMU systems shall not be older than one day when in the network or online
- Proper analysis shall be performed of residual virus/malware, antivirus-specific issues on systems to ensure vulnerability-free SMU environment
- For SMU email servers, virus detection and attachment filtering shall be enabled.
- DLP (Data Leakage Prevention) controls shall be implemented. On end user systems based on University needs.
- By default, all servers, desktops and laptops are installed with the latest, updated antivirus agent at the time of the asset commissioning or allocation to users
- Users shall not have any access to modify the antivirus agent configuration on their systems

Restrictions on software installation

- Only authorized software shall be allowed for installation on SMU systems as this shall ensure in reducing the risk of malware
- Freeware/Shareware shall not be installed inside the SMU network. Approvals for exceptions for freeware / shareware installations need to be taken specifically for University requirement
- IT shall perform vulnerability scan and obtain official clearance for any freeware and shareware installation
- All software installation inclusive of updates and security patches to existing software shall be installed post testing
- Any University user who has requested for a software installation due to University requirement, shall get a written approval from respective manager.
- Downloading unlicensed software/utility, freeware, games, movies, music, etc. shall be strictly prohibited on the SMU network.
- Audit or maintenance activities of servers and other critical systems shall be carefully planned and agreed to minimize disruptions to University processes.

Vulnerability Management

- Vulnerability assessments shall be performed periodically on University-critical information assets for vulnerabilities.
- All identified high and medium severity vulnerabilities shall be addressed within 30 to 90 days respectively, from the date of being reported.

Patch Management

- All servers shall be regularly updated with the latest patches as per the patch calendar
- All desktops and laptops shall be deployed with baseline patches while allocating the assets to users
- A rollback plan shall be in place that allows safe restoration of critical systems to their pre-patch state in the event that the applied patch has unforeseen effects.

Log Management

- Log Management shall ensure that a defined process exists for management of University-critical information systems and devices logs
- All access control devices, critical servers, networking devices and other security devices shall generate access, usage and configuration change logs
- System administrator and operator activities shall also be logged
- Audit logs shall be analyzed periodically for any deviation from the baseline and for suspected/malicious activities
- Audit logs for System Administrator or third-party access need to be reviewed on periodic basis
- The log storage, retention and disposal shall be performed as per the contractual requirements
- Audit logs shall be archived to collect any evidence and shall be protected from any possible tampering
- Access to the log files shall be restricted.

Data Backup Policy

- Data on servers/applications shall be backed up as per the schedule defined and approved by IT team
- Backup frequencies, scope of coverage, choice of media shall be defined and approved by IT in agreement with the respective asset owner.
- Where necessary, additional copies of backup data shall be stored at a remote site for contingency purposes
- The backed-up data shall be periodically tested for successful restoration and functionality.
- Backup logs generated from each backup job shall be reviewed for errors

Clock Synchronization

- All clocks of SMU, including those of servers, desktops, laptops and other devices shall be synchronized with a Network Time Protocol (NTP) server or equivalent.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Information Security Incident Management Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

Information Security Incident management involves the identification, reporting and mitigation of information security incidents and further, to take actions to avoid any future recurrence.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
IRT	Incident Response Team
ISMS	Information Security Management System
RCA	Root Cause Analysis

3. Purpose

The purpose of this policy is to establish an effective Information Security Incident Management system at SMU so as to minimize the damage due to information security incidents and malfunctions.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT (SMU). He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head IT (SMUI)	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document
IRT	Reporting, recognizing, and resolving information security incidents and weaknesses and oversight for information security incidents

6. Policy Description

A formal information security event/incident detection, reporting and escalation process shall be established. Responsibilities and procedures shall be defined to handle information security events effectively. All employees and third parties of SMU shall be trained on their responsibilities related to incident management.

Information Security Event and Incident

Security violations such as unauthorized physical or logical access to SMU facilities, intrusions, virus attacks, software malfunctions, misuse of IT resources, violation of SMU policies and standards, violation of applicable laws, security weaknesses, and any other occurrence which has, or may have, a negative impact on the confidentiality, integrity, and/or availability of SMU information shall be considered as information security incidents. Every occurrence is an event and it becomes an incident once there is a negative impact on SMU.

Incident Reporting

- Each SMU employee or third party who suspects or learns of a threat or potential incident should immediately report it by logging the same appropriately into SMU Service desk.

- The IRT should follow the *Information Security Incident Management process* for engaging its function.

Incident Response Team (IRT)

- The Head IT shall be the designated primary contact for reporting of information security incidents.
- The Head IT along with the Registrar (SMU) shall identify the Incident Response Team (IRT) and define roles and responsibilities of the IRT members who shall respond to information security incidents
- The roles and responsibilities of the IRT team members include:
  - Reporting, recognizing, and resolving information security incidents and weaknesses and
  - Oversight for information security incidents
- IRT shall contain personnel from cross-functional teams who have the authority to take decisions. Members from one or more of the following teams should be included for handling and resolving incidents:
  - Finance
  - Human Resource
  - IT
  - Facilities

  However, it is at the discretion of the Registrar (SMU) to choose the appropriate team to form the IRT
- *Information Security Incident Management process* with escalation matrices shall be documented and followed for responding to information security incidents.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Organisation Information Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

The Information Security Policy Organisation appropriate responsibilities, authority and relationships to manage information security at Sikkim Manipal University. The Information Security organization has representation from all functions to ensure the structured coordination of information security related activities within the organisation. This policy addresses the above requirements of the organization.

2. Abbreviations

Abbreviations	Description
ISMS	Information Security Management System
MRM	Management Review Meeting
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE

3. Purpose

The purpose of this policy is to:

- Define an information security organisation structure to implement, monitor, manage and improve organization wide information security
- Assign appropriate responsibilities, authorities and relationships to manage information security at Sikkim Manipal University.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the business. The types of information assets could be software, physical, paper, service, people and

information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of University must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT. He shall be responsible for the maintenance and updating of this policy document.

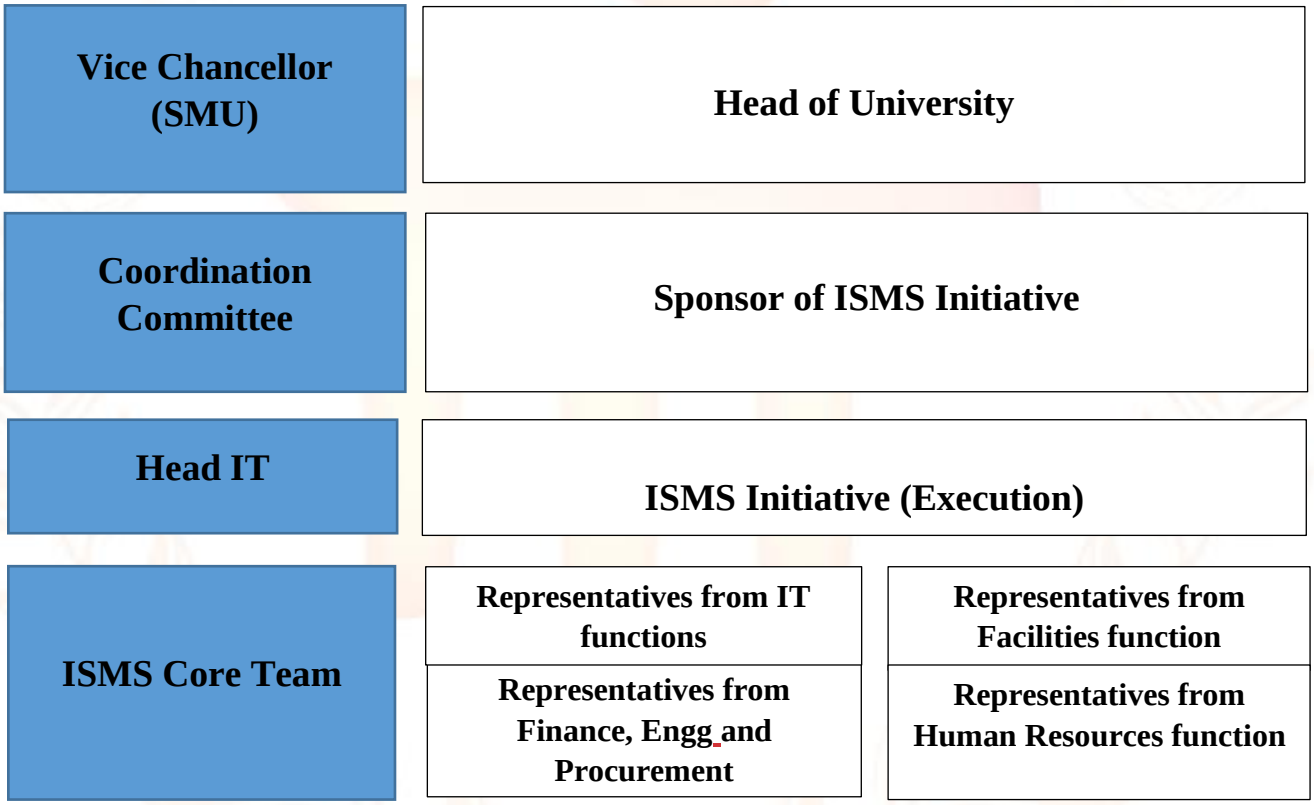
Role	Responsibilities
Head IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document

6. Policy Description

- An Information Security Organization shall be setup to undertake information security activities in all functions of SMU.
- An information security organization structure shall be established to implement, monitor, manage and improve the organization wide information security
- Security roles and responsibilities shall be defined and assigned at all levels
- The Information Security Organization structure should be reviewed annually and after any changes in business, regulatory or operational requirements.

Information Security Organization Structure

Given below is the information security organization structure defined for SMU.



Information Security Roles and Responsibilities

1. **Coordination Committee (CC)**

   The CC provides management commitment, sponsor and support for information security initiatives.

   The CC meeting will be held once in a Month and review meeting every week on first Monday.

   The CC have the following Role & Responsibilities:

- Reviewing and approving the SMU Information Security Policy as well as other related policies and procedures.
- Providing the resources needed for information security management and approving assignment of specific roles & responsibilities for implementation.
- Communicating to the employees and third- parties on the SMU Information Security Policy and plans to demonstrate management intent.
- Conducting review of security initiatives and plans
- Providing feedback and inputs to enhance the information security of SMU.
- Ensuring conduct of security compliance reviews (including processes and technology) by an independent agency and
- Providing decision on organization's risk appetite (acceptable level of security risk).

2. Head Information Technology (Head IT)

The Head of IT shall have the following responsibilities:

- Identifying information security objectives and aligning them with the organizational strategic plans
- Overseeing the development and implementation of the security initiatives, plans, policies, processes, and their ongoing maintenance
- Ensuring the establishment and implementation of security risk management framework across the enterprise
- Carrying out regular risk assessments across the organization including third- parties and providing the Head IT with a view of risk exposure to seek inputs on risk treatment/acceptance measures
- Overseeing security operations including but not limited to anti-virus management, end point protection, patch management, firewall policy management, vulnerability management, etc.
- Overseeing investigations/forensic analysis of security breaches, including suspected insider threats.
- Assisting in incident management associated with security breaches
- Assisting the HR in planning and executing the security awareness programs.

- Overseeing the development and implementation of Business Continuity and Disaster Recovery plan, framework and solutions.
- Keeping the management updated with effective and reliable approaches to information security.
- Conducting the regular security maturity and compliance reviews including External and Internal Audits across the organization and reporting the outcome to the Vice Chancellor.

3. ISMS Core Team

The ISMS Core Team will have representatives from the following functions:

- Information Technology consisting of –
  - Registrar (SMU)
  - IT Delivery & Operations.
  - Data Center & Cloud Services
  - IT Products & Applications
- Human Resources
- Finance, Procurement and Legal
- Facilities & General Services & Engineering department

The ISMS core team shall meet at least once every month. Members of the team would have secondary responsibilities of information security in addition to their existing primary responsibilities.

The ISMS Core Team shall have following information security responsibilities:

- Acting as representatives of their respective function for information security issues pertaining to their function.
- Implementing, within their respective functions, the information security requirements as specified in the ISMS Policy and its domain specific policies.
- Resolving any inter-functional issues that may arise while implementing the security policies in their function.

- Ensuring that the third parties related to their function adhere to the ISMS Policy and its domain specific policies and informing the Head IT in case any non-compliance is observed.
- Creating and maintaining the information asset register for their respective function as per the template provided by the IT.
- Providing inputs/feedback to the HEAD IT to improve the information security at SMU. Assisting the SMU (IT) in carrying out security risk assessments and compliance reviews for their respective function including the associated third parties and
- Providing the SMU (IT) with required data to measure the maturity of ISMS in their respective function.

Contact with Authorities

- The SMU Facilities team shall maintain contact with law enforcement agencies, fire department and emergency services. Contact details of these agencies shall be maintained and displayed at appropriate places that are accessible to all users.
- The SMU Facilities shall ensure the validity and accessibility of the authorities' contact numbers, once in a quarter. This is for preparedness in case of any emergencies.
- The IT Team shall maintain regular contact with telecommunication service providers and other service providers supporting the IT infrastructure and applications.

Contact with Special Interest Groups

The Head IT shall maintain appropriate contact with special interest groups and authorized information security forums for receiving and distributing the updates on new vulnerabilities, security threats, regulations, risks etc. pertaining to SMU.

Third Party Service Providers

- All third -party service providers, contractors and sub-contractors shall be required to adhere to the SMU ISMS policy;
- All third-party service providers, contractors and sub-contractors shall be required to submit specific documents such as Legal and Non-disclosure

  Agreements etc. pertaining to information security prior to any engagement and
- All third-party service providers, contractors and sub-contractors shall be subject to independent reviews of their compliance with this policy.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Communications Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

Communications Security aims to ensure appropriate security controls for the protection of information in networks and its supporting information processing facilities to ensure confidentiality, integrity and availability of information residing on the hardware and software assets of Manipal Global Education Services Pvt. Ltd. (herein referred to as 'SMU').

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
ISMS	Information Security Management System
LAN	Local Area Network
MPLS	Multi-Protocol Label Switching
SSL	Secure Sockets Layer
VPN	Virtual Private Network

3. Purpose

The purpose of this policy is to define and implement appropriate controls to protect the information stored in or passing over networks and their supporting information processing facilities.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT. He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head – IT	Creation and update of this policy document
Registrar (SMU)	Review and Approval of this document

6. Policy Description

This policy intends to implement appropriate security controls to ensure the protection of information in networks and its supporting information processing facilities to ensure confidentiality, integrity and availability of information residing on SMU information systems.

General Guidelines

- All connections/VPN connectivity should be segregated from the Corporate Network
- External connections to SMU networks, i.e., connections between a SMU network and a non-SMU network shall be protected by a firewall.
- Necessary network and security components shall be implemented, managed, and maintained in a secure manner
- All network and security components shall be configured to provide audit logs for necessary and continual security monitoring.
- Confidentiality and integrity during transmission of critical data shall be ensured using appropriate encryption as required.
- Access to the network components and security devices shall require strict access control and authentication as per the *Access Control Policy*.

- Remote management of critical servers and network components shall only be done through proper encrypted channels.
- All internet connections shall be passed through a content filtering solution to block undesirable web sites
- Appropriate network redundancy shall be built in the environment as per University requirements
- Network components and the cabling of SMU network shall be protected
- Detailed network architecture diagram shall be maintained up to date
- Required documentation in support of all activities, related to network and security components, shall be created and maintained

Remote Access

- The Principal Engineer – IT shall be responsible for the management and administration of remote access services
- Remote access security shall be controlled and enforced using strong password as per *Access Control Policy*
- SMU (IT) shall incorporate different methods/types of access to its network from remote hosts, such as, but not limited to P2P Connectivity, MPLS Connectivity, VPN over Internet, SSL VPN Access, VPN Access etc.
- TELNET service shall not be used to access SMU's information assets
- All sensitive data sent through remote access shall be over an encrypted tunnel
- Devices that connect to the SMU network must have their personal firewall enabled, operating system patches updated and should have active and updated antivirus software installed.
- For Non-SMU users, access to production systems shall not be permitted unless accompanied by written approvals from the Head IT.
- Components providing remote services must be configured to time out and terminate inactive connections
- The IT function must ensure that remote access rights to SMU network are provided with the function owners' approved authorization list, and any discrepancies identified are communicated to the respective functions for further appropriate action.

Wireless Access

- Necessary controls shall be established to protect the confidentiality, integrity, availability Band authenticity of data passing over wireless networks
- The wireless infrastructure of SMU shall be logically separate from the wired LAN and further secured with adequate levels of strong user authentication, encryption levels, detection of rogue access points and appropriate physical security controls
- All wireless Access Points/Base Stations connected to the corporate network must be registered, and approved by Head – IT.
- These Access Points/Base Stations shall be subject to periodic penetration tests and audits
- Necessary assessment shall be performed to assess and treat risks involved with wireless communication on a periodic basis
- Wireless network shall be segregated from other networks based on necessary risk assessment.

Firewall Management

- Firewalls shall deny all inbound and outbound traffic that do not support SMU's Interest & University objectives
- Current Firewall Access rule set shall be maintained by Principal Engineer - IT
- Firewall configuration shall be audited and verified annually
- Strict physical access controls shall be in place to secure the firewall
- Necessary failover or redundancy mechanism as applicable shall be in place
- Firewall logs shall be stored and maintained as per the retention period defined by SMU or based on customer requirements
- Firewall logs shall be analysed on a regular basis and any discrepancies shall be logged and acted upon
- Firewall configuration shall be backed up as per the backup frequency in *Operations Security Policy*
- Changes to firewall configuration shall be streamlined and authorized
- Firewall Management responsibilities shall be listed and assigned.

Network Security

- Network security controls shall be documented and implemented at SMU for logical segregation of SMU networks and for the protection of critical networks, information systems, and applications from unauthorized access, modifications, or destruction by internal or external users
- The firewall shall be configured and managed to permit access to corporate data from authorized users only and for authorized network services only
- Intrusion prevention systems shall be deployed, as appropriate, to detect/prevent any intrusions and any unauthorized or malicious activities and
- Network Architecture documentation shall be maintained and access to it shall be restricted on a need-to-know basis.

Instant and Social Messaging

- SMU reserves and intends to exercise the right to review, audit, intercept, access and disclose all messages created, received or sent over the IM system(s) for any purpose
- The contents of IM messages may be disclosed within SMU to and among authorized personnel without permission of the affected IM user, if reasonable suspicion exists of activities that may violate this or any other SMU policy
- Social Media platforms and/ or Messaging platforms such as but not limited to Facebook, Twitter, WhatsApp etc. shall not be used by employees and third- parties for any official/professional communication unless approved by designated authority
- SMU shall consider proactively scanning, blocking or flagging any transmissions, via the SMU network, that contain phrases of profanity or violence, confidential information, or other sensitive data that may expose the organization to operational, legal, reputational, or physical risks.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Compliance Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

This policy provides guidance on complying with legal, regulatory and contractual requirements affecting information assets and resources.

The key objectives will be to establish and implement security controls to maintain the following attributes of information:

- Confidentiality i.e. denying unauthorized access to information
- Authenticity i.e. validating the source of message, to ensure that sender is properly identified and
- Integrity i.e. providing the assurance that the message is not modified, accidentally or intentionally.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
IP	Intellectual Property
ISMS	Information Security Management System
PII	Personally, Identifiable Information
SOP	Standard Operating Procedures

3. Purpose

The purpose of the compliance policy is to avoid breaches of legal, statutory, regulatory or contractual obligations related to information security and of any security requirements of SMU. This includes ensuring that information security is implemented and operated in accordance with the organizational policies and processes of SMU.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT. He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document

6. Policy Description

Compliance with Legal and Regulatory Requirements

SMU will ensure compliance with local and international applicable laws and regulations related to Information Security requirements mentioned in SMU ISMS policies.

Intellectual Property Rights

- Intellectual Property of SMU shall be classified as 'Highly Restricted' asset and provided for use on a 'need-to-know' basis, thus protecting the same against breaches of legal, regulatory and contractual obligations.
- Compliance with legislative, regulatory and contractual requirements related to intellectual property rights will be ensured through the implementation of appropriate procedures
- Intellectual Property of SMU may include, but not limited to Learning Content, Presentations, Work Products/results of services, Designs, Models, Prototypes, Architecture Diagrams, Computer Programs (including source codes of software and documentation), techniques, Policies & Processes, SOPs & Guidelines, Case Studies, White Papers, Knowledgebase, Specifications that are conceived, created, developed directly or indirectly, whether made solely by SMU or contractors or jointly with others in connection with any work performed for SMU or on behalf of SMU
- SUM (IT) will create required awareness on prohibited use or re-use of SMU Intellectual Property
- Approval should be obtained from Legal and Registrar (SMU) in case SMU Intellectual Property is needed to be shared with any Third Party
- Any breach or non-compliance related to SMU Intellectual Property should be reported to Legal and Registrar (SMU).

Data Privacy and Protection of records

- Sensitive and confidential information including Personally Identifiable Information (PII) shall be protected by SMU against any loss, destruction, falsification, unauthorized access and release in accordance with legislator, regulatory, contractual and University requirements
- Personal data must be handled as per *Information Asset Management Policy*. Personal data must only be held for the minimum amount of time and for legal or University reasons
- The asset owner must ensure that processes for responding to a breach or potential breach of University, legal, and regulatory requirements are established, maintained, and executed.

Independent Review of Information Security

In order to ensure Information Security is implemented and operated in accordance with the organizational policies and processes, there will be independent reviews of SMU's approach to managing information security and its implementation held at planned intervals or when significant changes occur.

Independent review of Information Security should be conducted through either Internal or External Audits. For more information, refer the *Information Security Management System Audit* process.

For technical testing of Information Systems, the prior approval of the IT functions/Asset Owner should be obtained. Adequate precautions should be taken before the execution of technical testing. The testing tools should be under the custody of the SMU (IT) and should be physically and logically protected.

Other than independent review of Information Security through Internal and External Audits, Managers in their respective functional areas should regularly review the compliance of information processing and procedures within their area of responsibility with the appropriate security policies and other security requirements.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Human Resource Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

This policy defines the security requirements that need to be integrated with the Human Resources (HR) processes including screening of candidates, recruitment process, during employment and upon change of role, exit or termination at SMU.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
HR	Human Resources
ISMS	Information Security Management System
JD	Job Description
NDA	Non-Disclosure Agreement

3. Purpose

The purpose of this policy is to ensure that:

- Screening process is conducted satisfactorily so that the right candidates are recruited, leading to better protection of SMU information assets.
- Employees are bound by contract and non-disclosure agreements with regard to information assets of SMU.
- Employees understand their responsibilities and roles regarding information security
- Risk due to human error, theft, fraud or misuse of information assets and facilities is reduced.
- A formal disciplinary process to take action against employees who have committed a security breach or who have violated IT security policies is implemented.

- Information assets are recovered by SMU upon change of role, exit or termination of employees

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the HR Head. The HR Head shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
HR Head	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document

6. Policy Description

Information security controls shall be designed and integrated with the HR processes to ensure that employees and third parties understand their responsibilities and are suitable for the roles they are considered so as to reduce the risk of theft, fraud, or misuse of information assets.

Prior to Employment

- For any position at SMU, Job Description (JD) should be documented with information security roles and responsibilities.

- All candidates for positions within SMU shall be subjected to a formal interviewing and selection process that is used by HOD to make informed hiring decisions. This on-boarding process should be aligned to the Information Security policy where appropriate and applicable, including candidate background screening as directed by SMU
- For any third-party, information security roles and responsibilities shall be defined and documented as a part of the service contract document
- Temporary staff and contractors as a part of the onboarding process shall sign an NDA ('Non-Disclosure Agreement') together with the service contract
- After successful recruitment, employees shall sign an NDA ('Non-Disclosure Agreement') together with the employment contract, Code of Conduct document
- The HR shall follow the candidate on-boarding process for inducting a new employee and also change of role, transfer/separation of employees from SMU.

During Employment

- The Head IT shall ensure that importance of Information security is communicated to all employees to maintain an information conscious culture at SMU
- The Head IT in conjunction with the HR team shall ensure that employees are periodically made aware of their security responsibilities by taking appropriate actions such as awareness drives, education, and training or similar programs
- The HR shall maintain records and track completion progress of all awareness drives and employee awareness trainings.
- HR shall define formal disciplinary process and ensure that employees are made aware of this process which may be initiated against them if they violate or commit any kind of security breach.

- The employees must also be made aware of the *Information Security Incident Management Process* to ensure information security incidents are reported to the Head IT on a timely basis, thereby minimizing the impact of the incidents.

Termination or Change of Employment

- HR shall ensure that change or transfer of employment responsibilities of the employee shall be clearly defined, assigned and communicated to the employee upon change or transfer of responsibilities
- In the event of a change in responsibility of an employee or third parties, IT department is required to ensure that the relevant access rights are revoked or modified as required
- HR shall ensure that exit or termination of employment responsibilities shall be clearly defined, assigned and communicated to the employees of the HR team who would perform the duties
- HR should initiate the termination process on the employee's last working day
- HR shall formalize a termination process. This process shall include the return of all issued assets such as software, corporate documents, equipment, access cards, manuals and/or any other assets that are the property of SMU
- HR, Facilities and IT shall be required to ensure that the access rights of all employees and third parties to information assets and information processing facilities, shall be revoked upon termination of their employment, contract or agreement
- Access rights of employees should be disabled by the close of University hours of the last working day
- Temporary staff, contractors, and vendors' access should be disabled on the last working day identified by their reporting manager.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Secure Information Systems Development and Maintenance Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

For information systems to be robust and capable of safeguarding against threats, they must be designed and maintained with appropriate controls from inception. This policy defines the controls to be implemented throughout the lifecycle of information systems including development and maintenance.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
ISMS	Information Security Management System

3. Purpose

The purpose of this policy is to ensure that information security is an integral part across the entire lifecycle of all information systems developed or maintained at SMU. This also includes information systems which provide services over public networks.

4. Scope

This policy is applicable to all information assets of SMU, SMCPT, SMCON, SMIT, SMUDDE, HSS. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU Institutions must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head – IT, He shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head – IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review of this document

6. Policy Description

Application Security Training

- All members of the software development team shall receive appropriate training to stay informed about security basics. Individuals in technical and management roles (developers, testers, Project Managers) who are directly involved with the development of software programs shall attend at least one security training each year.
- Basic software security training shall cover foundational concepts like:
  - Fundamentals of Application Security
  - Secure design guidelines
  - Threat modelling
  - Secure coding including programming guidelines
  - Security Testing
  - Privacy design, development and testing best practices

Secure Development Requirements

- All projects shall be developed in a secured environment. Project security requirements shall be captured in collaboration with stakeholders and the
- Application/Product Owner. Security design requirements must be documented and maintained.

- All projects source code shall be accessed by using version control process. Source code access shall be limited to specific individuals and access shall be granted on a 'need basis'
- Source codes with version control shall be backed up regularly to a secure location
- If any defects or bugs are identified, they shall be fixed by the developer
- Logical separation between different environments (Development, Testing) shall be maintained for projects
- Changes to systems within the development life cycle shall be controlled by the use of formal change control procedures:
    - Request for Change by the customer shall be captured and documented
    - Project Manager shall perform an impact analysis and evaluate the risks arising from the impact of the change
    - He/she shall analyze scope, cost, schedule, quality associated with the change and then approve the change
    - Once the change is implemented, the effect of the change shall be monitored and
    - A roll back plan shall be developed to restore the system to its original state in the event the implementation of the change has unforeseen effects
- Code review shall be initiated and continued throughout the development cycle till the final product is delivered. Testing of security functionality shall be carried out during development and
- University critical application/product developed shall undergo Vulnerability Assessment either by internal resource or a third party or the customer. Based on the vulnerabilities identified and the severity levels, remediation action shall be implemented to address the vulnerabilities. Refer *Operations Security Policy*.

Outsourced Development

SMU (Head IT) shall supervise and monitor the activities of system development that is outsourced to any third party.

Secure System User Acceptance Testing Requirements

- Test data should be backed up at different stages of testing. Acceptance test should be carried out using test data, which should be similar to operational data
- Any operational data that is classified as confidential should be masked prior to using it in the test environment. Appropriate authorization should be taken each time prior to copying any operational data in the test environment
- Logs of copying and activities on production data in the test environment should be recorded to maintain audit trail
- Prior to deploying any change to the production environment, test for user acceptance should be performed in the test environment.

Security guidelines for Production environment

- There should be separate system hardware for development, test and production environments, wherever applicable. There should be a strategy for day-to-day disk space management on the production environment
- Daily backup should be taken for the data, logs and configurations in the production environment
- Physical access to the production environment shall be monitored. A strong password policy shall be enforced in the production environment. Access to the production environment should only be given after appropriate approvals
- Test data should be backed up and purged prior to deploying into production environment
- Application logs should be maintained for at least six months for all University–critical applications and
- Application owner should ensure that auditing should be done on a periodic basis for all Application logs to detect any unauthorized activity.

Security guidelines for Maintenance of Applications

This involves provision of end to end application maintenance and support services for tailor-made applications as well as for platform-based solutions.

- Application support and maintenance services include enhancements, Security patching, Windows patching and DB patching need to be done Regular intervals.
- Change Request Management process should follow during any change in the environment
- 24*7 support when Required for mission critical projects, L1, L2 and L3 support, production support, service help desk, monitoring, etc.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Service Vendor Management Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

The Service Vendor Management Policy is designed to ensure protection of the hardware and software assets of Sikkim Manipal University and its Colleges (herein referred to as 'SMU') that is accessible by vendors/suppliers. This includes maintaining an agreed level of service delivery with vendor/suppliers.

2. Abbreviations

Abbreviations	Description
CRM	Customer Relationship Management
ISMS	Information Security Management System
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
SLA	Service Level Agreement
TAT	Turn Around Time

3. Purpose

The purpose of this policy is to ensure appropriate security controls for protection of the University's assets that are accessible to third-party vendors.

4. Scope

This policy is applicable to all information assets of SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDE, HSS. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU & it's colleges must adhere to this policy in conjunction with all other policies of SMU. Anyone having any query regarding this policy shall consult with the Head IT or Registrar (SMU).

5. Roles & Responsibilities

The owners of this policy is the Head IT and designated assignee shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head – IT	Creation and update of this policy as per requirement
Registrar (SMU)	Review and Approval of this document

6. Policy Description

SMU & its Colleges shall implement appropriate security controls to protect its assets that are accessible to third-party vendors.

Here are some specific terms and their definitions:

Term	Definition
Vendor	Vendor is the organization or individual providing services to SMU. The Vendors may provide services related to 'Delivery Services' or 'Product Supply' or 'Support Services'. Vendors may include: ➢ Partners for Services and Products. ➢ Consultants for Services ➢ Contractors for Services ➢ Free Lancers for Services ➢ Vendors for Support Services
Services	University specific work to support delivery. E.g.: Development of online training content.
Product Supply	Services related to the supply of critical IT Infrastructure equipment & devices that support key University operations & their maintenance.

	E.g.: Supply of network devices like routers, switches, firewalls. E.g.: Supply of servers & computing devices.
Support Services	Non-University specific work / 'non-core' services being provided to SMU. Services like 'material movement' of technology assets / equipment to and from SMU facility by vendors etc.
Outsourcing	Subcontracting of the 'University specific work' or 'core work' to a non-SUM entity. E.g.: Outsourcing of application development related work to a vendor for a fixed period of time.
Vendor Relationship Manager	Vendor Relationship Manager is required to monitor the performance with respect to the service levels specified in the service agreement of the Vendor.
Vendor SLA	Service Level Agreements shall establish SMU's expectations with regard to Vendor performance and quality in a number of ways. Failure to meet SLA targets shall attract penalties. SLA metrics may include, but not limited to: ➢ Availability and Uptime ➢ Response time & Resolution time ➢ First Time Resolution ➢ Turn Around Time (TAT) / Cycle time ➢ Accuracy % or Defect rate ➢ Notification in advance of network changes that may affect users.

- Depending on the nature of work, Vendors' services to SMU also include, but not limited to:
  - Development of applications and / or systems
  - Hosting Services (e.g. cloud computing, applications, archiving facilities)
  - Managed services for Vendor may include, but are not limited to:
    - Remote infrastructure management and monitoring
    - Applications support
    - End User support
  - Email, messaging and fax Vendors
  - Consulting Vendors including strategic and advisory services

Vendor Details

The following information must be maintained for each vendor that the University function uses:

- The name of the vendor
- Locations and Name of University function supported by the vendor
- Locations from where the services will be delivered by the vendor
- The name and contact information of the key University contact at the vendor
- The name and contact information of the SMU Vendor Relationship Manager
- A description of each service outsourced to the vendor
- The service level agreements (SLA) with the vendor (if applicable)
- The start and end date of the service agreements between SMU and the vendor

Due Diligence and Risk Assessment

Control Environment Reviews shall be conducted prior to entering into a service agreement with a vendor and while the service agreement is in effect.

The control environment review must include:

- The controls identified in the Risk Assessment process
- Each of the locations from where services are provided to SMU.

The following SMU functions or teams must, at a minimum, be consulted before beginning service agreements negotiations:

- Vice Chancellor
- Registrar (SMU)
- Head Procurement & GS
- Finance and
- Information Security

Vendor risk must be assessed every time there is a change in the scope of service. A Vendor Relationship Manager should monitor the performance with respect to the service levels specified in the service agreement. Head of IT may rely on SMU resource, third party assessments or an external consulting firm to conduct a Control Environment Review. If any other SMU & its colleges has prior relationship with the vendor and has conducted an adequately scoped review of the vendor, additional reviews of the control environment may not be required. However, on-going review frequency must be met.

Review Frequency

Based on the Risk Assessment conducted on the vendor:

- A risk level must be assigned to the vendor. The risk level must be equal to the highest of the risk level assigned to each service outsourced to the vendor
- The risk level assigned to the vendor must determine the frequency of review and must follow the schedule stated below:

Vendor Risk Level	Review Requirements	Review Frequency
Low	Appropriately scoped control environment review must be conducted	At the discretion of the Function/Information Security Team
Medium	Appropriately scoped control environment review must be conducted	At the discretion of the Function/Information Security Team
High	➢ Vendor must implement Corrective action for risks identified and compensating controls around them ➢ Review shall be conducted on the implementation of compensating controls by the vendor periodically	Continuous review Monthly review

Service Agreement

A service agreement with the vendor shall be in place before the vendor begins the service.

- The service agreement shall address audit reporting and shall contain provision for SMU to obtain a copy of the report. (If available, internal audit reports of the vendor related to the services need to be provided to SMU)
- The service agreement must include provisions requiring the vendor to notify SMU of any security-related incidents affecting the confidentiality, integrity and availability of SMU information
- All service agreements must have an exit plan, including, but not limited to renegotiation/ termination of contract
- The agreement must include the following, but not limited to:
    - Controls to ensure the return or destruction of information and assets at the end of, or at an agreed point in time during the agreement
    - Restrictions on copying
    - Agreement must include the right to audit, including, but not limited to the right to assess performance on a monthly basis against critical controls identified during the risk assessment
    - Agreement must include non-disclosure, data privacy and confidentiality clauses

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Physical and Environmental Security Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

While it is important to protect the information assets of SMU, it is equally important to regulate the first level of access to these assets. So, preventing unauthorized physical access, the SMU and interference to these assets and also ensuring their continued availability is vital.

2. Abbreviations

Abbreviations	Description
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
ISMS	Information Security Management System

3. Purpose

The purpose of this policy is to prevent unauthorized physical access, SMU and interference to the information processing assets/physical assets of SMU. This also includes prevention of loss, due to theft or compromise of assets and interruption to the organization's operations.

4. Scope

The SMU Information Security Policy is applicable to all information assets of SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE, HSS. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the University. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU. Anyone having any query regarding this policy shall consult with the SMU Information Security core team.

5. Roles & Responsibilities

The owner of this policy is the Head – Facilities, who shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
Head – Facilities	Creation and update of this policy as per requirement
Registrar (SMU)	Review & Approval of this document

6. Policy Description

Physical Security

Physical security perimeters considered for current scope of implementation,

Physical access controls that restrict access and monitor entry to the SMU facilities shall be implemented as follows:

- All the common areas, work areas and restricted areas in SMU Campus of each location /premises shall have an identified custodian who shall authorize access.
- Any outward / inward material movement especially from Stores / Pharmacy and all critical sections shall be supervised by the security
- Employees, Service Providers, and visitor groups shall be easily distinguishable:
  - Identification badges shall be visibly distinct for different category of entrants (Different color lanyards for different categories of entrants)
  - Employees shall be provided with photo ID badges
- Entry points on the floor shall have a Biometric reader
- Biometric access rights shall be provided to employees. The HR SPOC shall authorize the access.
- Terminated SMU personnel shall have all physical access rights, including access to restricted areas, revoked or removed on the last working day.

Note: For physical access to server rooms and Data Center facilities, refer *Access Control Policy* which is owned by IT.

Environmental Security

- Risk assessment shall be conducted for each facility to identify environmental controls commensurate with the risks;
- The risks scenarios shall include:
  - Natural and man-made disasters
  - Equipment security
  - Center or site security
- The following minimum environmental controls shall be evaluated for implementation:
  - Heat / smoke detectors shall be in strategic locations throughout the facility and
  - Sprinkler systems shall be installed in the basement.
- For areas such as server rooms, additional environmental conditions shall be in place such as:
  - Alarm systems to alert rise in temperature beyond optimum levels
  - Raised floor and false ceiling for routing network and electrical cables.
- All equipment, such as fire detector, DG, UPS etc. shall be inspected as per the AMC schedule.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

SIKKIM MANIPAL UNIVERSITY

Business Continuity Management Policy

SMU-ISMS- V1.0

(SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE)

Contents

1. Introduction

This policy defines the controls to establish a framework to counteract interruptions to business activities and to protect the critical business processes from the effects of business disruptions such as major failures, disasters, etc. and their timely resumption.

The key objective here will be to promote organizational survival by ensuring that critical business processes can continue, or be recovered in a timely manner, following a disruption, thus ensuring:

- Operations are not adversely affected, thus maintaining the quality of management and meeting statutory and regulatory requirements of the business.
- Students /Patients / Internal Employees expectations and quality of services continue to be met, or managed, in such a way that customers are retained, and new business opportunities met; and
- Reputation and SMU to interested parties and the public are not negatively affected following business disruption.

2. Abbreviations

Abbreviations	Description
BCP	Business Continuity Plan
BIA	Business Impact Analysis
SMU	SMU, SMIMS, CRH, SMCPT, SMCON, SMIT, SMUDDE
DR	Disaster Recovery
ERT	Emergency Response Team
ISMS	Information Security Management System
SPOC	Single Point of Contact

3. Purpose

The purpose of this policy is to ensure the business continuity of SMU's all Critical Services even in the event of natural or man-made disasters/ interruptions and to protect its critical business processes from the effects of Operational disruptions.

4. Scope

This policy is applicable to all information assets of SMU. An information asset is a definable piece of information stored, transmitted and/ or processed in any manner, which is recognised as value to the business. The types of information assets could be software, physical, paper, service, people and information that is physically or electronically stored and/ or transmitted by any of the aforesaid types of assets.

All employees and third parties of SMU must adhere to this policy in conjunction with all other policies of SMU.

5. Roles & Responsibilities

The owner of this policy is the Head IT, he shall be responsible for the maintenance and updating of this policy document.

Role	Responsibilities
HEAD IT	Creation and update of this policy as per requirement
REGISTRAR (SMU)	Review and Approval of this document

6. Policy Description

Business Continuity Plan

- A BCP Team shall be created to handle crisis/emergency situations
- Employees shall be made aware of SPOCs that they can contact in case of any crisis
- It shall also be ensured that all employees have an understanding of BCP and how it relates to their respective service areas.

BCP Team

A BCP Core Team shall be created and it will, at a minimum, comprise of the following:

- Registrar (SMU / Director (SMU)
- Members of Coordination Committee
- Heads of various functions
- Head IT
- SMU (IT) Team & Other team members nominated by the BCP core team.

Business Continuity Planning, done by the BCP Team, will involve the following processes:

- Business Impact Analysis (BIA)
- Risk Assessment
- Risk Management
- Risk Monitoring and Review

Head IT will manage and head the BCP activities.

The Head IT will also be responsible for:

- Developing an enterprise wide BCP and prioritization of business objectives and critical operations that are essential for recovery.

- Business Continuity Planning to include the recovery, resumption, and maintenance of all aspects of the business, not just recovery of the technology components.
- Regularly updating Business Continuity Plans based on changes in business processes, audit recommendations and lessons learned from annual testing.
- Following a cyclical, process-oriented approach that includes a Business Impact Analysis (BIA), risk assessment, management and monitoring, and testing.
- Considering all factors and deciding upon declaration of a "crisis" and restoration of normal business operations.

Business Impact Analysis

- A Business Impact Analysis (BIA) will be undertaken on a yearly basis or as decided by management to identify critical business processes
- Risk Assessments will be performed periodically to identify potential threats which can lead to disruptions and minimize the impact of the risks to an acceptable level, for all the identified critical services
- All Function Heads will be required to perform a BIA for each key business system that is used in his/her area of responsibility
- The assessment will identify and define the criticality of key business systems and the repositories that contain the relevant and necessary data for those business systems
- The assessment will also define and document the BC & DR Plan for the identified business system.

Business Continuity Plans

Each key business system will be part of the BCP for critical situations like hardware, software or networks becoming critically dysfunctional (short- or long-term outages), critical system failures, unavailability of the work facility or employees due to unforeseen circumstances etc.

This plan should include an explanation of the magnitude of information or system unavailability in the event of an outage and the process that would be

implemented to continue operations during the outage. In addition, the feasibility of utilizing alternative off-site computer operations should be addressed.

Specifically, the BCP should include:

- A plan for continuing operations in the event of temporary hardware, software or Network outage. This plan should contain information relating to the end user process for continuing operations
- A DR Plan for returning functions and services to normal on-site operations when a disaster is over and
- A procedure for periodic testing, review and revision of the BCP for all affected Systems, as a group or individually as needed.

Disaster Recovery Plan

- It will be ensured that a Disaster Recovery plan is in place for all critical IT systems
- Disaster Recovery sites will be identified such that the DR site is at a minimum of 10 kms away from the primary site with necessary infrastructure to support recovery needs
- Depending on the severity and impact of an adversity, disaster recovery plans will be formulated
- A disaster recovery plan as a part of the BCP will dictate every aspect of the recovery process which will include the following:
  - The events that denote possible disasters
  - Authority given to the CISO to declare a disaster and thereby put the plan into effect
  - The sequence of events necessary to prepare the backup site once a disaster has been declared
  - The roles and responsibilities of all key personnel with respect to carrying out the plan
  - An inventory of the necessary hardware and software required to restore operations

- A schedule, listing the personnel that will be staffing the backup site, including a rotation schedule to support ongoing operations without burning out the team members.

- An emergency response team (ERT) will be created to carry out all activities as listed in the DR plan
- The DR plan will be annually updated to reflect the latest changes in the SMU systems.
- Mock disaster drills will be conducted semi-annually to test the effectiveness of the DR plan.

7. Enforcement

This policy will be reviewed and revised from time-to-time based on business and (or) technological requirements and the same shall be published as revised versions. Any deviation from the above policy should be documented, approved and signed by Head IT.

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