1. **OBJECTIVE**

The Safety policy of the Department of Electrical & Computer Engineering (ECE) is established for the purpose of protecting safety & health of ECE staff, students, visitors, contractors and the environment from experiencing unwanted consequences due to foreseeable hazards associated with workplace activity, condition or any harmful materials used or stored in the department.

2. **SCOPE**

This policy is applicable to all Department staff, students, contractors and visitors in the department under the administration of the Faculty of Engineering (FoE), NUS.

3. **POLICY STATEMENT**

The Department of Electrical & Computer Engineering under the Faculty of Engineering of the National University of Singapore (NUS) is committed to providing a safe and health-risk free premises for its staff, students and visitors who may be affected by its activities associated with research, teaching and services.

The Department undertakes to comply with all statutory safety and health requirements, and other standards and guidelines as prescribed by the University and the Faculty.

The Department shall strive to eliminate hazards or adopt reasonably practicable means to reduce the risk of injury to its staff, students and visitors to an acceptable level. This can be achieved through the implementation of the Safety Management System (SMS) and various Occupational Safety and Health (OSH) programmes in the NUS.

The Department shall ensure that resources are made available for the implementation of the Safety policies, procedures and programmes towards building a positive safety culture. This policy shall be reviewed annually for continual improvement opportunities and made available to the interested parties.

4. **ENDORSEMENT OF POLICY**

The Head of Department shall endorse this safety policy as part of management's commitment towards the safety of its staff, students and visitors.
5. PERIODIC REVIEW

The policy shall be reviewed annually to refresh and reiterate the management's commitment, direction, and drive towards safety excellence.

6. COMMUNICATION

The safety policy may be made known to all staff, students and visitors through any of the following methods:

- Circulation of memo, newsletter, intranet;
- Safety committee meeting and other forms of meeting;
- Safety notice board and other notice boards in the premises;
- Staff/student orientation/induction;
- Briefing session and undertaking form, etc.

7. ROLES & RESPONSIBILITIES

7.1 Management

Department management such as Head of Department, Deputy Heads, and Area Directors are responsible for providing leadership in safety & health and they represent the workplace occupier in their area of management.

Management is to ensure that:

- Individuals under their management have defined safety & health roles and responsibilities;
- Individuals under their management have the authority to implement appropriate safety policies, procedures, and programs;
- Areas under their management have adequate resources and funding for safety and health programs, safety procedures, and equipment based on risk priority;
- Areas under their management are in compliance with legal & other requirements including NUS, faculty and departmental level safety and health policies, safety procedures and programs;
- Shall be responsible for defining safety responsibilities in locations where there is no direct supervision such as teaching facility in his or her area of management;
- Motivate and support the safety committee towards safety excellence in ECE.
7.2 Supervisor

Supervisor refers to any Academic Staff or Principle Investigator (PI) who manages or oversees any centre, laboratory or research project. Supervisors are responsible for protecting the safety and health of employees and students under their supervision and within their area of management.

This responsibility entails:

- Ensure compliance with applicable legal & other requirements pertaining to safety, health & the environment;
- Implementing and ensuring compliance to NUS, faculty and departmental safety policies, procedures and programs;
- Ensuring that the workplace and equipment are safe and well maintained;
- Ensures that personnel under his or her charge are educated and trained periodically on safe working methods in relation to the process and type of work performed, especially those engaged in dangerous and hazardous working environment or hazardous materials;
- Reviews continually existing work methods and process to ensure that safety & health measures are provided for;
- Investigates all accident occurrences, incidents and near misses and ensures that preventive measures are taken to prevent recurrence;
- Puts into effect programmes/activities as directed by the management and safety committee;
- Ensuring that appropriate personal protective equipment is provided for employees and enforcing the use of such equipment;
- For Adjunct Professors, it is the responsibility of the co-PI or Head of Department to ensure their compliance to University, faculty & departmental safety policies and other requirements.

7.3 Department Safety Officer and Safety Coordinators

Providing guidance, advice and technical assistance to Supervisors, Laboratory Managers and Technologists in their respective laboratories, offices, and other work units on the measures to be taken in the interests of the safety and health of the staff, students and contractors as specified in the Workplace Safety and Health Act (WSHA) and its subsidiary regulations.

These would include but not limited to the following:

- Proactively identifying, evaluating, and correcting safety and health hazards and implementing the safety management system;
- Assist towards implementing safety and health programs;
- Assist in providing training to the department’s staff, students and contractors as necessary;
7.4 Laboratory Staff

Employees working in the laboratories include Lab Managers, Technologists, Lab Demonstrators, Research Staff, and Engineers are responsible for:

- Assisting in the investigation of all accidents, incident and near misses and submitting reports as required under the incident/accident reporting procedure;
- Ensuring that all incident or injuries, regardless of severity are promptly treated and reported;
- Ensure that all safety & health appliance such as fume cabinet, emergency eyewash & shower, first aid box, fire extinguisher, spill kits & other safety devices in their area of control are available, regularly inspected and functioning;
- Checking regularly to ensure that all safety guards for machineries are in position and functioning;
- Maintain safe working conditions and rectify unsafe working practices and conditions in the workplace, upon acknowledging;
- Ensure that all statutory equipment such as lifting equipment/machine, pressure vessels, irradiating equipment have been registered with relevant authorities and inspected periodically as per requirement under the law;
- Maintains & update the chemical inventory in the workplace, ensure quantities of chemicals are kept within the statutory or in-house requirement and chemicals are stored in appropriate cabinets, stores or locations.

7.5 License Holder

License holder will include license for statutory controlled substances, radiation license for user, material or equipment and other legislated license requirement for regulating safety, health & environment. The responsibilities for license holder will include the followings:

- License holder for controlled substances has to provide advice on the procurement, handling and storage of controlled substances which include hazardous substances, explosive precursors, petroleum & flammable materials, substances under arms or explosives, schedule biological agents or toxins and poisons in accordance with local statutory regulations;
- Radiation supervisory license holders are responsible for whatever radio-active equipment/material under their charge and they are responsible for the safety of
all radiation workers and others in the immediate vicinity, of their area of supervision.

- Supervisory license holders have to ensure all controls & facilities are in place to manage any unacceptable levels of risks arising from the equipment/materials/persons in their area of supervision and the affected areas;
- User license holders for radiation have to attend periodic medical examination and to wear the TLD badge whenever engaged with radiation work/material and the TLD badges are being sent to NEA for analysis once every two months and their exposure to radiation are kept below the allowable dosage that has no unwanted health effects;
- User license holders for radiation have to ensure good contamination control and workplace are kept safe & tidy;
- License holder has to maintain and update their respective license/s accordingly and to maintain the records of their license;
- License holder has to ensure compliance to respective legal requirement as stipulated in statutory requirements.

7.6 Acting License Holder

Acting license holders are personnel covering for the main license holder for procurement of controlled substances in their respective department and their responsibilities will include the followings:

- Verify that transaction record has been completed and endorse by respective supervisor/PI for purchase of controlled substances, which require statutory licensing.
- Keep a record of transaction record.
- To fax over a copy of the license/waiver letter to supplier as and when required
- Liaison officer between Safety Officer, PO generators, and respective laboratory personnel as regards to licensing for controlled substances.
- Will ensure all licenses given to them are being kept properly and not to be duplicated or given to any personnel without prior permission from licensee.

7.7 Safety Committee Chairman

Safety Committee Chairman is an appointment by management and his responsibilities covers the followings:

- To chair the Safety Committee (SC) and to lead the committee in managing safety & health matters;
- Make decisions, set directives and provide direction for the committee in the aspects of safety, health & environment;
- Provide guidance for all safety programme, training and promotion activities;
7.8 Safety Committee Members

- Attend the Safety Committee meeting and contribute in the discussion & decision making on any safety & health issues;
- Participate or assist in any safety & health initiatives and promotional activities;
- Communicate and disseminate any safety & health information, initiatives or directives that are decided by the safety committee;
- Involve in incident and accident investigations;
- Liaison between the safety committee and the department/faculty/centre/laboratory he or she represented.

7.9 Employee and Student

- Shall not, wilfully do anything likely to endanger themselves or others;
- Comply with University, faculty & departmental safety & health policies, procedure, practices, rules & regulations which are establish to protect them;
- Keeping themselves informed of conditions affecting their safety and health;
- Participating in training programs provided by their supervisors, instructors, department, faculty and OSHE (if applicable);
- Utilise and care for their personal protective equipment, and safety devices installed and provided for their protection;
- Reports to their immediate superior on all accidents and injuries and to seek medical attention for all injuries sustained;
- Report to their supervisors or instructors of any unsafe condition in the workplace, classroom or laboratory;
- Seek advice from superiors when any unusual situation develops that may appear wrong or dangerous or whenever in doubt of the job operation and instruction given;
- Maintain good housekeeping in the work area;
- Conduct risk assessment and manage the risks of the activities to be engaged in.

8. REFERENCE

Information found in this manual has been cross referenced with University Safety & Health Policy and other policies established by Office of Safety, Health & Environment (OSHE) and this document compliments the main safety & health policies established under the University level.
ECE Safety Policy

The Department of Electrical & Computer Engineering (ECE) of the Faculty of Engineering in the National University of Singapore is committed to providing a safe and health-risk free environment for work, research and educational activities to safeguard the wellbeing of the staff, students and visitors.

The Department shall comply with all safety and health related legislation, standards, guidelines and requirements prescribed by the University, the Faculty and the Department.

The Department shall adopt the risk management principles to minimise risks to as low as reasonably practicable, by implementing the Safety Management System (SMS) and participating in the various safety related programmes in the university, such that the staff, students and visitors remain injury-free.

The Department shall make available the necessary resources for implementing the SMS and facilitate the development of a positive safety culture.

This policy shall be reviewed annually, contributing towards continual improvement efforts. This policy shall be made available to the interested parties.