12.9 Annexure - Emergency Preparedness and Response Plan

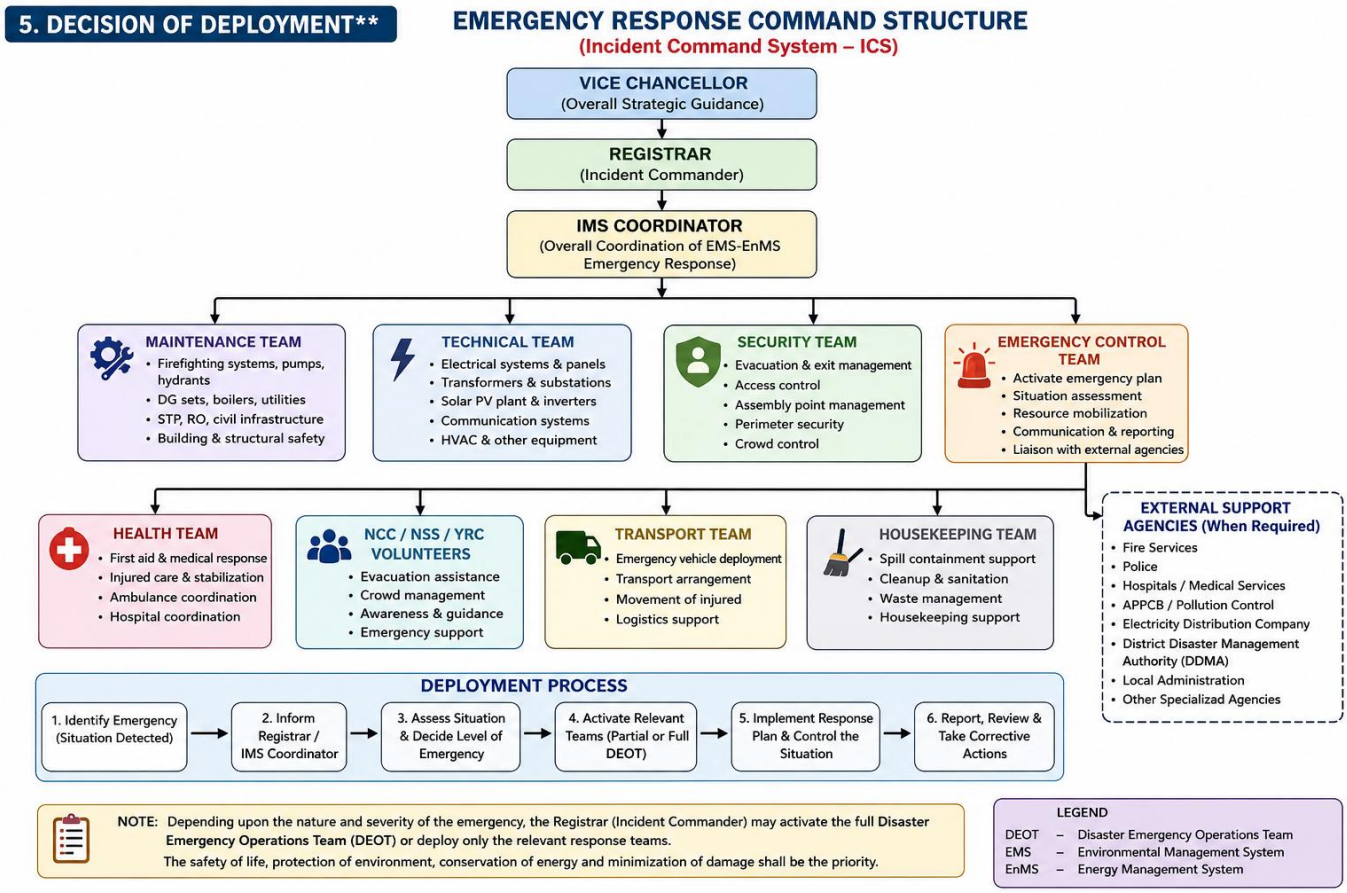
1. Title	Emergency preparedness plan for "fire"

2. Purpose	To establish the procedure for the response of the Fire Safety team(s), MITS for Fire Hazard. The SOP prescribes guidance and assigns responsibility for adopting various executive actions to ensure prompt response during Fire Hazard.

3. Scope	All elements of the operation while performing any operations inside the premises of MITS. This SOP is a guideline and shall be subject to review periodically once in a year with competent authority.

4. Responsibility	***Directors/Heads of DEO Team:*** It shall be the responsibility of all the Directors/Heads of DEOT at MITS who are involved in the fire hazard response to ensure that all aspects of this SOP are adhered to. ***Responders:*** It shall be the responsibility of all the responders to know, understand and follow the directions of the SOP in the letter and spirit.

5. Emergency Response Organization Structure:



The above Emergency Response Organization Structure shall be applicable to all emergency situations covered under this Emergency Preparedness and Response Plan unless otherwise specified.

Team	Responsibility
Technical Team	Electrical systems, transformers, solar systems, utilities
Maintenance Team	Civil works, DG sets, STP, RO, firefighting systems
Security Team	Alarm activation, evacuation, access control
Health Team	First aid, ambulance coordination, casualty management

NCC/NSS/YRC Volunteers	Evacuation assistance and crowd management
IMS Coordinator	Emergency coordination and reporting
Registrar	Incident Commander

6. Introduction

Fire is a process of rapid oxidation at elevated temperature accompanied by the evolution of heated gases products of combustion and the emission of visible and invisible radiation Fire is a chemical reaction that requires three elements to be present for the reaction to take place and continue. The three elements are:

- Heat or an ignition source
- Fuel
- Oxygen

These three elements typically are referred to as the "fire triangle." Fire is the result of the reaction between the fuel and oxygen in the air. Heat, fuel and oxygen must combine in a precise way for a fire to start and continue to burn. If one element of the fire triangle is not present or removed, fire will not start or, if already burning, will extinguish.

6.1 The Classes of Fire

Class A Fire

Fires involving solid combustible materials or organic nature such as wood, paper, rubber, plastics, etc. where the cooling effect of water is essential for extinction of fires

Class B Fires

Fires involving flammable liquids or liquefiable solids or the like where a blanketing effect is essential

Class C Fires

Fires involving flammable gases under pressure including liquefied gases, where it is necessary to inert gas, powder or vaporizing liquid for extinguishment

Class D Fires

Fires involving combustible metals, such as magnesium, aluminium, zinc, sodium, potassium, etc, when the burring metals are reactive to water and water containing agents and in certain cases carbon dioxide, halogenated hydrocarbons and ordinary dry powders. These fires require special media and techniques to extinguish.

Class F

Fires involving vegetable or animal cooking oils or fats; common in commercial cooking operations using deep fat fryers

6.2. Fire Extinguishers

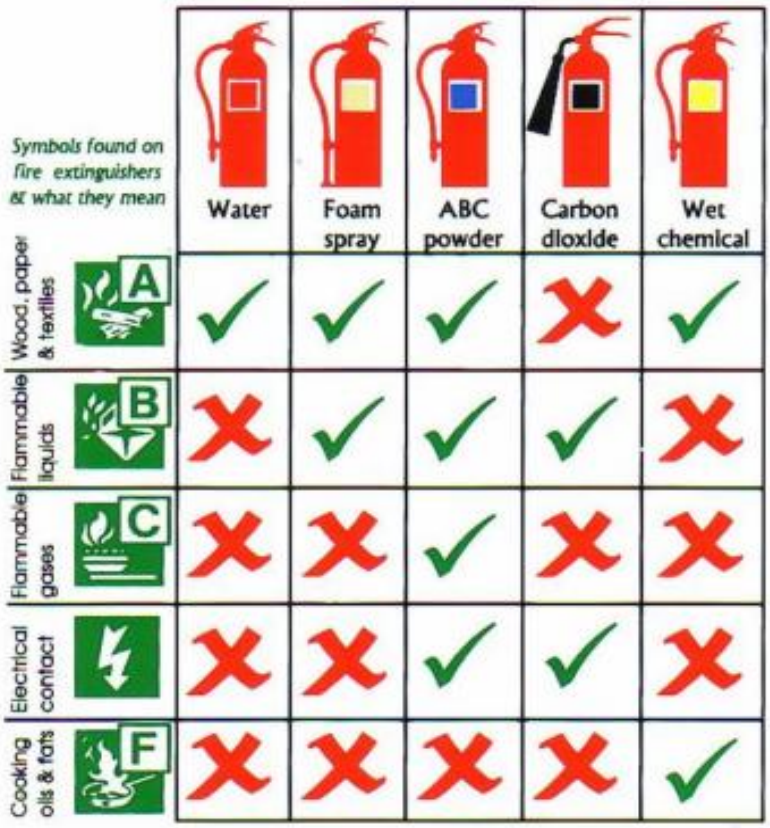


Figure 1: Categories of fire extinguishers Source: NFPA

To operate a fire extinguisher, remember the word **PASS**:

- **P**ull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
- **A**im low. Point the extinguisher at the base of the fire.
- **S**queeze the lever slowly and evenly.
- **S**weep the nozzle from side-to-side.

7. Hazardous Area Classification

CLASSIFICATION	DIVISION	LOCATIONS
Class I locations are those in which flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures	Division - 1	Locations in which ignitable concentrations of flammable gases or vapours can exist under normal operating conditions; ignitable concentrations of such gases or vapours may exist frequently because of repair or maintenance operations or because of leakage; break-down or faulty operation of equipment or processes might release ignitable concentrations of flammable gases or vapours, and might also cause simultaneous failure of electric equipment in such a way as to directly cause the electrical equipment to become a source of ignition.
	Division - 2	Locations in which volatile flammable liquids or flammable gases are handled, processed, or used, but in which the liquids, vapours, or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in case of abnormal operation of equipment; or ignitable concentrations of gases or vapours are normally prevented by positive mechanical ventilation, and which might become hazardous through failure or abnormal operation of the ventilating equipment; ignitable concentrations of gases or vapours might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

CLASSIFICATION	DIVISION	LOCATIONS
Class II locations are those that are hazardous because of the presence of combustible dust.	Division - 1	Locations in which combustible dust is in the air under normal operating conditions in quantities sufficient to produce explosive or ignitable mixtures; where mechanical failure or abnormal operation of machinery or equipment might cause such explosive or ignitable mixtures to be produced, and might also provide a source of ignition through simultaneous failure of electric equipment, operation of protection devices, or from other causes; combustible dusts of an
CLASSIFICATION	**DIVISION**	**LOCATIONS**
		electrically conductive nature may be present in hazardous quantities.
	Division - 2	Locations where combustible dust is not normally in the air in quantities sufficient to produce explosive or ignitable mixtures and dust accumulations are not normally insufficient to interfere with the normal operation of electric equipment or other apparatus, but combustible dust may be in suspension in the air as a result of infrequent malfunctioning of handling or processing equipment and combustible dust accumulations on, in, or in the vicinity of the electrical equipment may be sufficient to interfere with the safe dissipation of heat from electrical equipment or may be ignitable by abnormal operation of failure of electrical equipment.
Class III locations are those that are hazardous because of the presence of easily ignitable fibres or flying's, but in which such fibres or	Division - 1	Location in which easily ignitable fibres or materials producing combustible flying's are handled, manufactured, or used.

CLASSIFICATION	DIVISION	LOCATIONS
flying's are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures.	Division - 2	Location in which easily ignitable fibres are stored or handled other than in the process of manufacture.

8. General SOP for FIRE Hazard

The management of Fire-Risk deals with three aspects:

1. Fire Prevention: It is the adoption of safe practices initially at the design stage and subsequently in the day to day operation to prevent break out of fires.
2. Fire Protection: It involves different facilities which shall help in immediate handling of fire effectively.
3. Firefighting: It is the physical phenomenon of handling the fire with the use of fire protection equipment, facilities as well as with the help of firefighting personnel who have been specifically trained for this job.

All these three distinct aspects are very closely related to each other but are completely separate in their individual scope with a philosophy that all fires can be prevented.

- AD(CL) shall adopt a Preventive approach to Fire Safety (i.e. Control on ignition source, Safe handling of fuel source)
- Facilities shall be designed and constructed in accordance with applicable laws, codes, and regulations in force in that jurisdiction. In the absence of local regulations / laws, facilities shall be designed with technically sound practices.
- Sites / Facilities should be managed in a way that fires are prevented, injuries and business losses are avoided, property is protected, and trust is fostered in the communities in which the AD (CL) operates
- Facilities should be managed, operated, and maintained in such way that the fire safety features are not compromised

- Fires are to be controlled in the initial stage itself and not allowed to spread
- Fire equipment is to be used for intended purpose only
- Emergency Plans shall be put in place.
- As part of the due diligence review, the Safety Head shall assess the level of fire protection / prevention in use or being planned in case emergency

Fire Risk Assessment:

The Safety Team Head should perform a risk assessment and fire load calculation. The following key elements shall be considered:

Risk of fire occurring to the particular facility / site

- Assessment of fire load to the particular facility/site
- Provision of means of escape
- Fire Compartmentation (Passive measures) etc.
- Fire Detection (Active measures)
- Firefighting & Emergency handling arrangements
- Emergency procedures

In the case of a new facility being constructed it shall be ensured that fire prevention / protection systems are installed. These systems are to be designed and constructed in accordance with applicable laws, codes regulations and they shall be authenticated by a fire expert or a third party fire engineer. For occupied buildings located in the vicinity of a high hazard facility, a separate risk assessment shall be carried out to assess the risk due to the external threat of fire / explosion. Hazard studies on 'high hazard facilities' (e.g. Process Hazard Reviews etc.) shall consider the potential scenarios associated with a fire. Where there is no reasonable alternative to hot working methods, a hot work permit system shall be utilized to ensure that appropriate control measures are put in place. Fire Risk Assessment should be done by including neighboring areas as well. i.e. asses the possibility of fire spreading from the neighboring areas to the companies specific site / facility / business unit.

9. Fire Detection & Alarm Systems

Fire detection and alarm systems shall be installed in every class rooms / office / laboratory/ facility.

The following types of detection systems are available and should be chosen based on their suitability for use at locations where they are required:

VESDA (Very Early Smoke Detection Apparatus) systems

Fire Alarm and Detection System

With Various type of fire alarm detectors like as Heat Detector, Smoke detector, Heat & Smoke Combined detector, Flame detector, Beam Detector, Normal Manual call points (MCP), intrinsically safe Manual call point, Hooter, Beacon light etc

Gas Detection System

With Various types of detectors like as Ammonia detector, Chlorine detector, Bromine detector, Hydrogen detector, Carbon monoxide detector, H_2S detector, Beacon light etc.

The detection system to be used is to be selected as per the following criteria:

Type of Occupancy

- Nature of Fire and Emergency Hazard
- Quantum of Hazard
- Selection of appropriate detector device considering the hazard
- Physical and environment condition

Fire Protection / Control Systems:

The following two types of fire protection systems are to be used:

Passive restraints / protection: Passive fire protection systems should be installed to contain fires or reduce the speed at which they may spread, through:

- Compartmentalization
- Segregation
- Separating distances
- Use of Fire resistance wall, Floors & doors etc.
- Dykes for storage tank
- Fire resistant/retardant coatings/ paints / Cables

Active restraints / protection: This requirement is a risk based decision, and suggests the provision for suitable and sufficient firefighting/escape equipment and devices will be determined by the fire risk assessment. A combination of the following types of protection systems shall be considered Portable type system Portable Fire protection systems, which are used at the incipient stage of fire for immediate control, need to be installed. Some examples are:

- Fire extinguishers (Based on extinguishing media: DCP, Co2, Water, Foam)
- Sand buckets
- Fixed / Semi fixed type system
- Fixed / Semi fixed fire protection systems needs to be installed. Some Examples are:
- Fire Hydrant system
- Fire Alarm & Detection system
- Sprinkler system
- Gas flooding system
- Medium velocity & High velocity water spray system
- Mobile type system
- Mobile Fire Protection systems (Fire Vehicles) need to be provided / mobilized as appropriate. Some examples are:
- Fire Tenders – With various type of firefighting media like as Water, Foam, Dry Chemical powder, Carbon dioxide.
- Rescue Van – With Various type of Rescue Equipment Like as TRIPOD, lifting Pads.
- TOOL, Hydraulic RAM, Descended/De-rope device, Rescue rope, Rescue stretcher, Emergency light mast etc.
- HAZMAT (hazardous material) Response Unit – With Various types of equipment like as hazardous chemical spill control kit, Leak arrest Kit, decontamination unit, various suits etc.

Inspection and Maintenance:

- To ensure integrity and reliability of the fire protection systems, they should be checked, inspected, maintained, and tested periodically. The inspection and maintenance shall:
- Ensure that the systems are available for intended protection all the time and are in a working condition at all times

- Ensure that the systems perform as per specifications Safe systems of work shall be established and implemented for entry into gas and water flood protected areas to ensure that the extinguishing media is not discharged whilst the area is occupied.

- Applicable technical codes and standards are to be referred for inspection and maintenance of fire detection/ protection systems.

- Periodically check the fire extinguisher for the expiry date

Emergency Preparedness:

- An emergency preparedness plan shall be put in place to address emergencies on account of fires. This emergency plan shall ensure that there is no harm to life, environment or property.
- Each Team Head shall have Fire Emergency plans based on their requirements. Roles and responsibilities are to be defined in the plan. The plan should also be communicated to all personnel who may be affected by the emergency.
- Auxiliary support squad shall be identified for responding to emergencies & assisting the fire fighters. Their names shall be displayed in operation/fire control rooms.
- Each site / premises shall include in their emergency plan, risks on account of potential fires and the appropriate measures for:
- Raising the alarm, which shall be distinct from all other alarms in
- Evacuation of personnel to an area of safe assembly point and accounting for their attendance.
- Quick reporting the fire to ‘on site’ or ‘off site’ emergency services,
- Containment of the fire until arrival of the emergency services, and
- Periodic testing to demonstrate adequacy of the plan / resources to manage the foreseeable scenarios.
- Regular\ mock drills should be conducted as per standard/procedure.

RECORDS

- Record of inspection/test of fire equipment/system (Retention -Three years)
- Record of mock drills (Retention - Three Years)

TRAINING & COMMUNICATION:

- Training shall be conducted to ensure appropriate response in times of an emergency. The training should be conducted, in the following categories:
- Awareness Training: To be conducted for all employees, teaching and non- teaching staffs and construction/maintenance workers. It should cover basics of fire, emergency preparedness, emergency response and general do's and don'ts
- Specific fire Training- This training and competency testing is to be conducted for individuals on specific topics such as how to handle fire extinguishers, emergency management plans etc. Those who are trained in this usually become fire marshal's/fire guards (or equivalent)
- Training and competency testing for Fireman-To be conducted for the dedicated fire response team as per the standard/procedure
- Auxiliary Support Squad shall be trained to ensure their capability to respond to emergencies.

VERIFICATION

- Audits shall be carried out to ensure identification of areas of strengths and weakness of the fire safety management systems. These audits should be undertaken to meet the following objective:
- To ensure that fire detection/protection and firefighting systems are in place
- To ensure that proper inspection and maintenance schedules are followed
- To ensure that adequate training has been imparted
- To ensure that proper emergency procedures are in place

8. MITS Disaster Emergency Operation Team Contact Details

S.No	Name	Phone Number	Mail id
1	The Vice Chancellor	9160020789	vicechancellor@mits.ac.in
2	The Registrar	9100973283	registrar@mits.ac.in
3	Additional Registrar (CL)	9160020772	additionalregistrar@mits.ac.in
4	Site Engineer	9100056874	siteoffice@mits.ac.in
5	Health team	9440358389	doctor@mits.ac.in
6	NCC/NSS/YRC Volunteers Head	9398542628	nsscell@mits.ac.in
7	Security Control Officer	8008570897	

1. Title	Emergency preparedness plan for "flood"

2. Purpose	To establish the procedure for the response of the DEO team(s), MITS for floods. The SOP prescribes guidance and assigns responsibility for adopting various executive actions to ensure prompt response during disasters

3. Scope	All elements of the operation while performing flood disaster response operations. This SOP is a guideline and shall be subject to review periodically once in a year with competent authority.

4. Responsibility	***Directors/Heads of DEO Team:*** It shall be the responsibility of all the Directors/Heads of DEOT at MITS who are involved in the flood disaster response to ensure that all aspects of this SOP are adhered to. ***Responders:*** It shall be the responsibility of all the responders to know, understand and follow the directions of the SOP in the letter and spirit.

5. Decision of deployment: Deployment of emergency personnel shall be carried out as per the Emergency Response Organization Structure defined in Section 5 of this document.

6. Categorization of alerts

Specific hazards have different categories of alerts as indicated below. For the purpose of dissemination of alerts, a uniform system has been devised by categorizing each type of alert in stages

Green- No Action needed;

Yellow- Watch and stay updated;

Orange- Be prepared;

Red- Take action

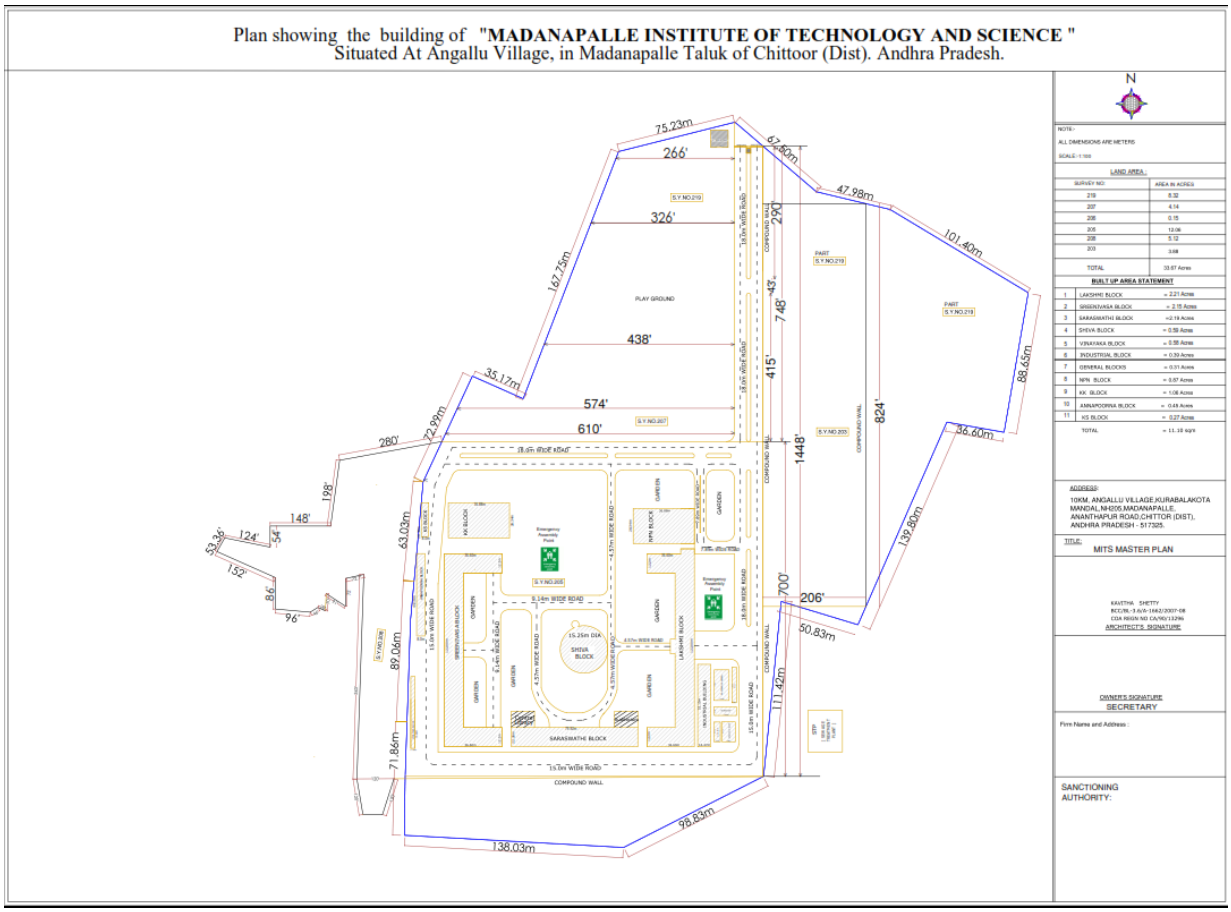


Fig 1. Campus Layout

7. General SOP for Flood Hazard

Team	Description
Maintenance Team	Setting up of DEOT with Ham Radio or other relevant technology
	Issue directions to repair/restore/maintain roads, drains, trees (prune), etc.
	Prepare Campus Disaster Management Plan
	Define triggers for issuing of alerts and warnings – rainfall / special event, etc.
	Update data on flooding spots
	Conduct coordination meetings with academic departments, local police stations, fire stations etc.

Team	Description
	Undertake Capacity Building measures for staff & personnel
	Conduct Mock Drills
	Maintain stock of potable water, food packets, insecticide, etc. during rainy season
	De- silting of storm water drains, culverts and canals periodically.
	Redesign existing storm water and drainage systems in flood prone areas for adequate flow of volume of drainage.
	Cleaning of sumps and manholes for clog free flow of waste water.
	Setting up of flood level markers within the city.
	Identify buildings in the low lying areas and develop strategy for strengthening / retrofitting so as to minimize damage.
	Undertake prevention/protection/structural rehabilitation/retrofitting measures of lifeline buildings
	Identify sensitive locations around high risk power installations.
	Periodical checking, testing, maintenance of all equipment and Instruments.
	Provision for separate lines/ sources of power for critical substations
	Raise level of transformers and substations above flood level
	Training of staff about handling the flood situation
Technical Team	Prepare Campus Disaster Management Plan and DM action plan for all emergencies
	Demarcate River catchments / flood plains/ Low lying areas/flood pathways and prepare Base flood hazard map
	Map location of man-holes, storm water drains, other critical features

Team	Description
	Undertake Needs Assessment & capacity building measures for Flood mitigation
	Integrate department specific plans and DM concerns into:
	Campus drainage plan, Master Plan, Land use Plan, Building Bye-laws
	Submit integrated department specific plans to DEOT
Health Team	Prepare an Emergency Health crisis management plan for prevention of epidemic.
	Identify a private area for pregnant women and lactating mothers
	Adequate Plan to treat the special community like physically challenged/Geriatric/Infants etc.
	Maintain emergency stock of medicine/equipment/blood.
	Maintain in good working condition, adequate no of Ambulances, mobile dispensaries, Hearse vans for movement of corpses.
	Prepare a directory of Health officers/professionals and medical facilities.
	Undertake vaccination and disinfection drives
	Develop skills and provide training to field staff/medical practitioners

8. MITS Disaster Emergency Operation Team Contact Details

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4	Site Engineer	9100056874	siteoffice@mits.ac.in
5	Health team	9440358389	doctor@mits.ac.in
6	NCC/NSS/YRC Volunteers Head	9398542628	nsscell@mits.ac.in
7	Security Control Officer	8008570897	

Title	Emergency preparedness plan for "oil spillage"
2. Purpose	To ensure that incidents occurring within the University that have a potential risk of pollution to the environment are dealt with in a safe manner to ensure minimal environmental impact.

3. Scope	Covers all the areas in which oil is used for different activities

4. Responsibility	Assistant Maintenance Engineer – Electricals Store in-charges

5. Definitions

- 'Oil' including petrol, diesel, central heating oil, lubricating oil, mineral oil, vegetable and plant oil, heavy oil i.e. bitumen, solvents i.e. paraffin, waste oil
- Spills from 'fly tipped' waste
- Firewater pollution entering the drainage system (water used to fight fires can contain dangerous substances)

- Drainage system failure
- Chemical incidents are managed through specific department procedures

6. Procedure

6.1 Discovering a spill

- Take measures to protect life, including your own. If possible, remove injured persons from danger and if you have first aid skills then render them if safe to do so.

- Take all reasonable measures to prevent access to the area. For any significant* spill, inform Security and request assistance. Security will inform Safety and Health Services if the spill is on the roadway or walkway or presents a significant risk to health and safety. Security will alert the fire brigade of any significant spill involving petrol.

- If safe to do so, try to control the spill to prevent escape to the drainage system by any practical means i.e. by using a spill kit. Do not attempt to deal with the spill without appropriate safety glasses and gloves at a minimum for Oil/Diesel. Stop the flow of oil if possible, any pumps should be stopped and switched off. Where a spillage occurs during a pipeline receipt, pumping should be stopped immediately

- If possible, isolate the area - cordon off the contaminated area, keep people at least 5 metres from the spill
- Do not leave the spill site - someone should be present continuously until the oil is cleaned up and the danger removed.

6.2 Major Spill

- Place the chemical spill signboard next to the spill.
- Wear appropriate personal protective equipment (PPE) - Gloves, mask, eye goggles) to cleanup spill.
- Pick up any broken glass with forceps. Do not use your hands.
- Sprinkle absorbent material over the spill, making sure not to spread liquid. Acid and base spill should be neutralized prior to clearing it up.
- Collect the entire spill with water pusher and dust pan.

- Dispose of all contaminated material in Red color cover. Label the cover with the name of the Hazardous material, name of the department and send to biomedical waste area.

6.3 Minor spill

- Place the chemical spill sign board next to the spill. Minor chemical spill can be cleaned up with the available departmental spill kit by housekeeping staff.

- Wear appropriate personnel protective equipment (glove, mask, eye goggle) to clean up the spill.

- Sprinkle absorbent material (chemisorbs) over the spill making sure not to spread liquid, Acid and base Spill should be neutralized prior to clearing it up.

- Dispose of all spill contaminated material in zip lock cover. Label the bag with the name of the Hazardous material, and name of the department and sent to biomedical waste area.

- Clean the area as per the cleaning procedure.

6.4 Reporting a spill

- Contained Spill – where a small spill (less than 5 litres or less than 1 metre in diameter) has been contained and successfully cleaned up please contact Security to report the spill and summarise action taken. Security will not assist with clean-up unless necessary but will log this spill as an incident. Please ensure once you have cleaned the spill you book a collection for the contaminated spill kit order a replacement from Sustainability.

- Significant and large spill– where a significant (Greater than 5 litres or greater than 1 meter in diameter) or a large (Greater than 25 litres) spill occurs contact Security immediately stating the exact location of the spill, substance spilt (if known), approximate quantity spilled and if the substance has entered the drainage system. Security will follow a procedure for notifying relevant departments.

6.5 Containing a spill – Step 1

- Immediate steps using the correct PPE should be taken to control the flow of the liquid being spilled.
- Assess the situation and contain the spillage with minibooms and other absorbents. Concentrate on containing the spill by preventing the liquid from entering the drains.
- At the same time as the leak is being controlled, contain the spilled material in as small

  an area as possible using absorbent minibooms to create a 'dam' around the spill.
- Do everything possible to keep it from spreading or getting worse.
- Once the spill has been contained, pads (or pillows for larger spills where available) may be placed on the spill area to absorb the spill to relieve the burden on the minibooms

6.6 Cleaning a spill - Step 2

- If you haven't already done so, place absorbent pads on the spill area to soak up the spill.
- Replace saturated pads as necessary until all the spill has been soaked up.
- For larger spills, cushions where available, should be used instead of pads.
- Do not hose down the area and allow any fluid to enter drainage systems.

6.7 Waste disposal – Step 3

- All used spill kit and PPE should be disposed of in the polybags provided in the spill kit. All used spill kit material is classified as hazardous waste and must be disposed of under The Hazardous and Other Waste Management Rules 2016.
- The bag should be closed using a cable tie (provided in the kit) and taken to a secure area, which should ideally be bunded until disposal arrangements have been made by

Sustainability.

7.1 Spill kits

- Each Site Spill Kit contains, as a minimum.
- Absorbent Pads - Used to soak up spills after they have been contained
- Absorbent Minibooms - Used to contain a spill by creating a 'dam' around it
- Disposal bags and ties - for the disposal of used spill kit
- Personal Protective Equipment

8. MITS Disaster Emergency Operation Team Contact Details

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6	NCC/NSS/YRC Volunteers Head	9398542628	nsscell@mits.ac.in
7	Security Control Officer	8008570897	

1. Title	Emergency preparedness plan for "earthquake"

2. Purpose	To establish the procedure for earthquake. The SOP prescribes guidance and assigns responsibility for adopting various executive actions to ensure prompt response during disasters

3. Scope	All elements of the operation while performing flood disaster response operations. This SOP is a guideline and shall be subject to review periodically once in a year with competent authority.

4. Responsibility	***Directors/Heads of DEO Team:*** It shall be the responsibility of all the Directors/Heads of DEOT at MITS who are involved in the fire hazard response to ensure that all aspects of this SOP are adhered to. ***Responders:*** It shall be the responsibility of all the responders to know, understand and follow the directions of the SOP in the letter and spirit.

5. Decision of deployment:

Deployment of emergency personnel shall be carried out as per the Emergency Response Organization Structure defined in Section 5 of this document.

6. Earthquake

An earthquake is a phenomenon that occurs without warning and involves violent shaking of the ground and everything over it. It results from the release of accumulated stress of the moving lithospheric or crustal plates. The earth's crust is divided into seven major plates, that are about 50 miles thick, which move slowly and continuously over the earth's interior and several minor plates. Earthquakes are tectonic in origin; that is the moving plates are responsible for the occurrence of violent shakes. The occurrence of an earthquake in a populated area may cause numerous casualties and injuries as well as extensive damage to property.

6.1 What to Do During an Earthquake

Stay as safe as possible during an earthquake. Be aware that some earthquakes are actually foreshocks and a larger earthquake might occur. Minimize your movements to a few steps that reach a nearby safe place and stay indoors until the shaking has stopped and you are sure exiting is safe.

6.1.1 If indoors

- DROP to the ground; take COVER by getting under a sturdy table or other piece of furniture; and HOLD ON until the shaking stops. If there is no a table or desk near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, (such as lighting fixtures or furniture).
- Stay in bed if you are there when the earthquake strikes. Hold on and protect your head with a pillow, unless you are under a heavy light fixture that could fall. In that case, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is a

strongly supported, load bearing doorway.

- Stay inside until the shaking stops and it is safe to go outside. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.

6.1.2 If outdoors

- Do not move from where you are. However, move away from buildings, trees, streetlights, and utility wires.
- If you are in open space, stay there until the shaking stops. The greatest danger exists directly outside buildings; at exits; and alongside exterior walls. Most earthquake related casualties result from collapsing walls, flying glass, and falling objects.

6.1.3 If in a moving vehicle

- Stop as quickly as safety permits and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.

6.1.4 If trapped under debris

- Do not light a match.
- Do not move about or kick up dust.
- Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so rescuers can locate you. Use a whistle if one is available.
- Shout only as a last resort. Shouting can cause you to inhale dangerous amounts of dust

6.2 What to Do After an Earthquake

- Keep calm, switch on the radio/TV and obey any instructions you hear on it.
- Be prepared to expect aftershocks.
- Turn off the water, gas and electricity.
- Do not smoke and do not light matches or use a cigarette lighter. Do not turn on switches. There may be gas leaks or short-circuits. Use a torch.

- If there is a fire, try to put it out. If you cannot, call the fire brigade.
- If people are seriously injured, do not move them unless they are in danger.
- Immediately clean up any inflammable products that may have spilled (alcohol, paint, etc.).
- If you know that people have been buried, tell the rescue teams. Do not rush and do not worsen the situation of injured persons or your own situation.
- Avoid places where there are loose electric wires and do not touch any metal object in contact with them.
- Do not drink water from open containers without having examined it and filtered it through a sieve, a filter or an ordinary clean cloth.
- If your home is badly damaged, you will have to leave it. Collect water containers, food, and ordinary and special medicines (for persons with heart complaints, diabetes, etc.)
- Do not re-enter badly damaged buildings and do not go near damaged structures.

6.3 Disaster Emergency Kit Ready

- Battery operated torch with extra batteries
- Battery operated radio
- First aid kit and manual
- Emergency food (dry items) and water (packed and sealed)
- Candles and matches in a waterproof container
- Knife,
- Essential medicines
- Cash and credit cards
- Thick ropes and cords
- Sturdy shoes

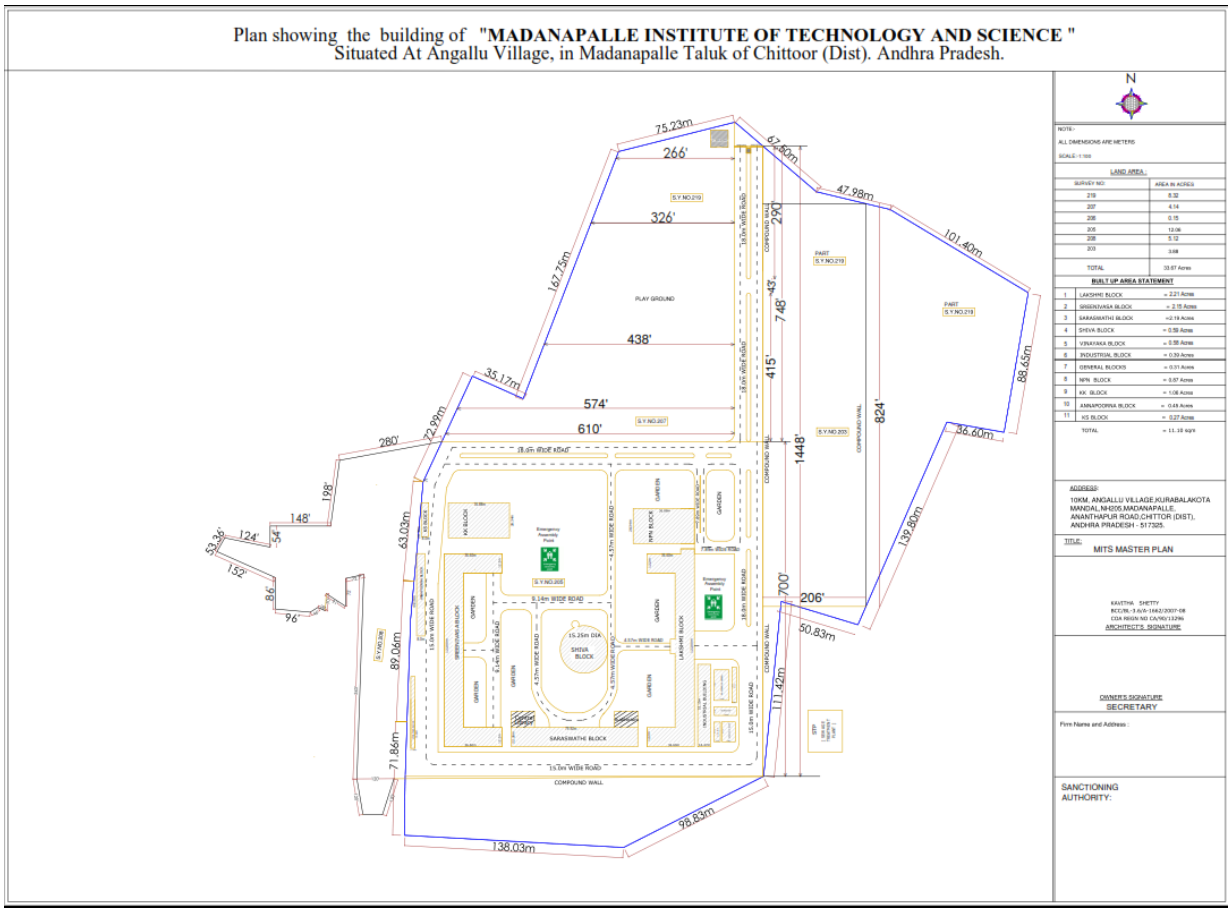


Fig 2. Campus Layout

7. MITS Disaster Emergency Operation Team Contact Details

S.No	Name	Phone Number	Mail id
1	The Vice Chancellor	9160020789	vicechancellor@mits.ac.in
2	The Registrar	9100973283	registrar@mits.ac.in
3	Additional Registrar (CL)	9160020772	additionalregistrar@mits.ac.in
4	Site Engineer	9100056874	siteoffice@mits.ac.in
5	Health team	9440358389	doctor@mits.ac.in

6	NCC/NSS/YRC Volunteers Head	9398542628	nsscell@mits.ac.in
7	Security Control Officer	8008570897	

Source	National Disaster Management Authority, Government of India

1. Title	Emergency preparedness plan for "cyclone"

2. Purpose	To establish the procedure for cyclone. The SOP prescribes guidance and assigns responsibility for adopting various executive actions to ensure prompt response during disasters

3. Scope	All elements of the operation while performing flood disaster response operations. This SOP is a guideline and shall be subject to review periodically once in a year with competent authority.

4. Responsibility	***Directors/Heads of DEO Team:*** It shall be the responsibility of all the Directors/Heads of DEOT at MITS who are involved in the fire hazard response to ensure that all aspects of this SOP are adhered to. ***Responders:*** It shall be the responsibility of all the responders to know, understand and follow the directions of the SOP in the letter and spirit.

5. Decision of deployment

Deployment of emergency personnel shall be carried out as per the Emergency Response Organization Structure defined in Section 5 of this document.

6. Cyclones

Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. Cyclones are usually accompanied by violent storms and bad weather. The air circulates inward in an anticlockwise direction in the Northern hemisphere and clockwise in the Southern hemisphere. Cyclones are classified as: (i) extra tropical cyclones (also called temperate cyclones) and (ii) tropical cyclones.

6.1 Before the cyclone season

- Check the buildings; secure loose tiles and carry out repairs of doors and windows
- Remove dead branches or dying trees close to the house; anchor removable objects such as lumber piles, loose tin sheets, loose bricks, garbage cans, sign-boards etc. which can fly in strong winds
- Keep some wooden boards ready so that glass windows can be boarded if needed
- Keep a hurricane lantern filled with kerosene, battery operated torches and enough dry cells
- Demolish condemned buildings
- Keep some extra batteries for transistors
- Keep some dry non-perishable food always ready for use in emergency

6.2 When the cyclone starts

- Listen to the radio (All India Radio stations give weather warnings).
- Keep monitoring the warnings. This will help you prepare for a cyclone emergency.
- Pass the information to others.
- Ignore rumours and do not spread them; this will help to avoid panic situations.
- Believe in the official information
- When a cyclone alert is on for your area continue normal working but stay alert to the radio warnings.

- Stay alert for the next 24 hours as a cyclone alert means that the danger is within 24 hours

6.3 When your area is under cyclone warning area

- Leave early before your way to high ground or shelter gets flooded
- Do not delay and run the risk of being marooned
- If your building is securely built on high ground take shelter in the safe part of the building. However, if asked to evacuate do not hesitate to leave the place.
- Board up glass windows or put storm shutters in place.
- Provide strong suitable support for outside doors.
- If you do not have wooden boards handy, paste paper strips on glasses to prevent splinters. However, this may not avoid breaking windows.
- Get extra food, which can be eaten without cooking. Store extra drinking water in suitably covered vessels.
- If you have to evacuate the flats move your valuable articles to upper floors to minimize damage.
- Ensure that your hurricane lantern, torches or other emergency lights are in working c ondition and keep them handy.
- Small and loose things, which can fly in strong winds, should be stored safely in a room.
- Be sure that a window and door can be opened only on the side opposite to the one facing the wind.
- Switch off the electrical mains in your house.
- Remain calm.

6.4 During a cyclone

DO NOT venture out even when the winds appear to calm down. The 'eye' of the cyclone might be passing. Winds might intensify and gush again and cause

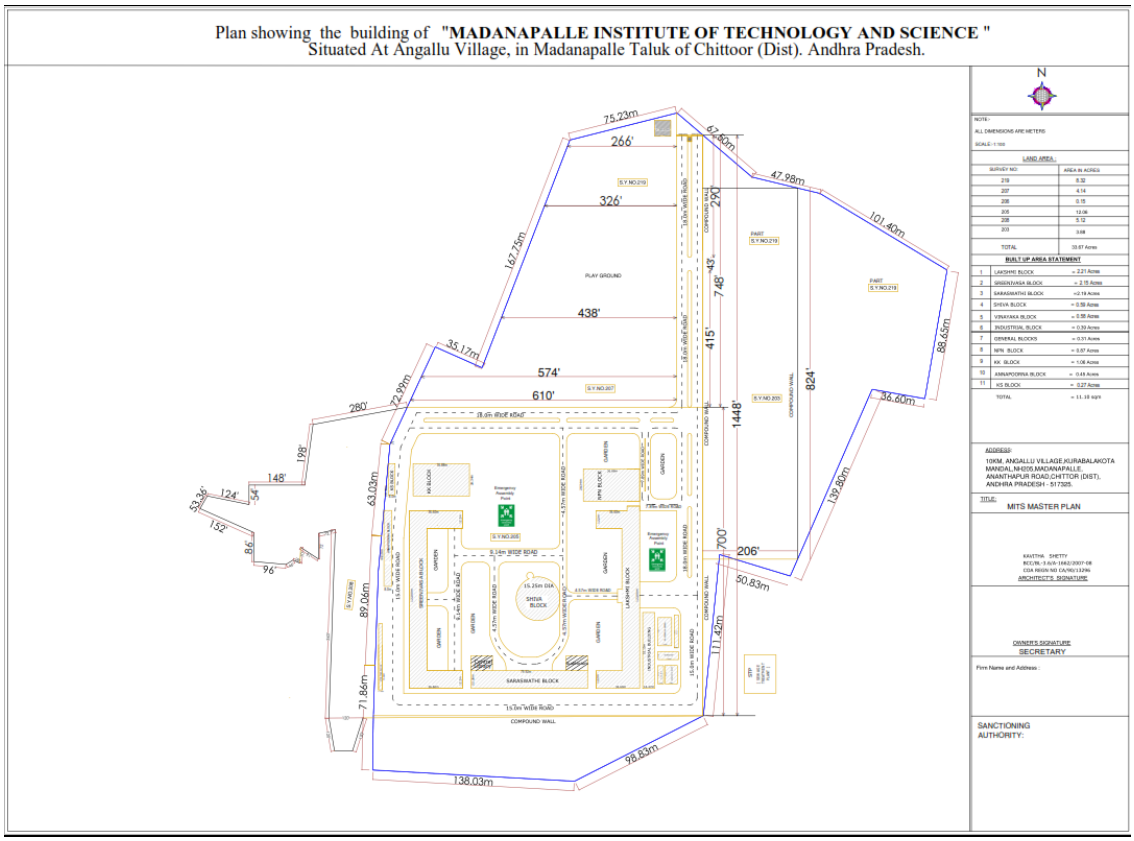
damage. Be safe inside till it is officially announced that the cyclone has passed.

6.5 When evacuation is instructed

- Pack essentials for yourself and your family to last a few days. These should include medicines, special food for babies and children or elders.
- Head for the proper shelter or evacuation points indicated for your area. • Do not worry about your property
- At the shelter follow instructions of the person in charge.
- Remain in the shelter until you are informed to leave

6.6 Post-cyclone measures

- You should remain in the shelter until informed that you can return to your flats.
- You must get inoculated against diseases immediately.
- Strictly avoid any loose and dangling wires from lamp posts
- If you have to drive, do drive carefully.
- Clear debris from your premises immediately.
- Report the correct losses to appropriate authorities



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Source	National Disaster Management Authority, Government of India

Version control	Description	Version
01.05.2025	Emergency preparedness and response plan	01