



**Department of Mechanical
Engineering
Faculty of Industrial Technology
and Systems Engineering**

STANDARD OPERATING PROCEDURE

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Head of Laboratory

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Operation of Pelton Turbine

Laboratory : Fluid Mechanics and Machineries _____

HAZARD POTENTIALS	Electric shock Cuts/Scratches
PERSONAL PROTECTIVE EQUIPMENT (PPE)	Eye protection (safety glasses, goggles) Glove Mask Safety shoes. First aid kit.
BEFORE OPERATING THE MACHINE	Ensure that the practical equipment and work area are clean, and all personal protective equipment (PPE) is worn. Sleeves must be securely rolled up. Ensure there is no damage to the electrical installation. Make sure the water level is filled according to the required limit.
NEVER	Operate the machine without wearing personal protective equipment (PPE). Ignore damaged or exposed electrical wiring. Touch the turbine while it is spinning.
STEPS FOR USING THE EQUIPMENT	<ol style="list-style-type: none">1. Turn on the MCB (Miniature Circuit Breaker) to the ON position.2. Unlock the Panic Switch by twisting the red knob.3. Press Run to start the motor.4. Adjust the throttle valve opening according to the data collection requirements.5. Observe the Forcemeter, Pressure Gauge, and Tachometer.6. Adjust the turbine speed by rotating the two adjustment shafts.7. Apply a load to the turbine shaft and analyze the data displayed.8. Conduct data analysis according to theoretical principles.
AFTER USE	Disconnect all electrical installations. Clean and organize the machine and equipment.