



VINAYAKA MISSION'S RESEARCH FOUNDATION
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY, PAIYANOOR



ELECTRICAL MACHINES LABORATORY
STANDARD OPERATING PROCEDURE

Name of the Lab./facility	Electrical Machines Laboratory
Name of the equipment	DC Shunt Motor
Purpose	To provide experimental verification for students about DC Shunt Motor.
Scope	Experimental training to obtain Efficiency of the DC Shunt Motor.
Responsibility	Faculty i/c of the facility, HOD/EEE

STANDARD OPERATING PROCEDURE

- Before starting the DC shunt Motor, Ensure that no loose Connections.
- Check for correct fuse rating.
- The connections should be given as per the experiment to be performed referring to the lab. Manual.
(Electrical Machines – I Lab Manual - Experiment No : 1, 3, 9)
- Connections thus given shall be verified by the course instructor or lab in-charge
- To perform the experiment supply mains have to be switched on.
- Supply is given to the motor by closing the DPST switch, motor is started using a three point starter.
- Experimental procedure to be followed as given in the manual
- Upon completion of experiment, the supply to the motor is switched off by opening the DPST switch.

PRECAUTIONS TO BE FOLLOWED

- Ensure that there is no load on the brake drum initially.
- The motor should be cooled by circulating water in the brake drum throughout the experiment.
- It is ensured that the MC (Moving Coil) meters are connected with proper polarities.

RECORD TO BE MAINTAINED

- Laboratory Manual containing the experiments that can be performed with the equipment
- Maintenance Record

S. Thevaran
Prepared by

Lepe
Approved by

[Signature]

Principal



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ELECTRICAL MACHINES LABORATORY
STANDARD OPERATING PROCEDURE



Name of the Lab./facility	Electrical Machines Laboratory
Name of the equipment	DC Generator
Purpose	To provide experimental verification for students about DC Generator.
Scope	Experimental training to obtain magnetization characteristics of the machine.
Responsibility	Faculty i/c of the facility, HOD/EEE

STANDARD OPERATING PROCEDURE

- Before starting the DC Generator, Ensure that no loose Connections.
- Check for correct fuse rating.
- The connections should be given as per the experiment to be performed referring to the lab. Manual. (Electrical Machines – I Lab Manual- Experiment No : 4, 5, 6)
- Connections thus given shall be verified by the course instructor or lab in-charge
- To perform the experiment supply mains have to be switched on.
- Supply is given to the motor by closing the DPST switch, motor is started using a three point starter.
- DC Shunt motor act as a Prime mover.
- Experimental procedure to be followed as given in the manual
- Upon completion of experiment, the supply to the motor is switched off by opening the DPST switch.

PRECAUTIONS TO BE FOLLOWED

- Initially all switches kept at open condition and the variable resistive load should be no load condition.
- The generator field rheostat is kept in maximum voltage position and motor field Rheostat is minimum resistive position.
- It is ensured that the MC (Moving Coil) meters are connected with proper polarities.

RECORD TO BE MAINTAINED

- Laboratory Manual containing the experiments that can be performed with the equipment
- Maintenance Record


Prepared by


Approved by


Principal



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ELECTRICAL MACHINES LABORATORY

STANDARD OPERATING PROCEDURE

Name of the Lab./facility	Electrical Machines Laboratory
Name of the equipment	DC Series Motor
Purpose	To provide experimental verification for students about DC Series Motor.
Scope	Experimental training to obtain Efficiency of the DC Series Motor.
Responsibility	Faculty i/c of the facility, HOD/EEE

STANDARD OPERATING PROCEDURE

- Before starting the DC Series Motor, Ensure that no loose Connections.
- Check for correct fuse rating.
- The connections should be given as per the experiment to be performed referring to the lab. Manual.
(Electrical Machines – I Lab Manual - Experiment No : 2)
- Connections thus given shall be verified by the course instructor or lab in-charge
- To perform the experiment supply mains have to be switched on.
- Supply is given to the motor by closing the DPST switch, motor is started using a two point starter.
- Experimental procedure to be followed as given in the manual
- Upon completion of experiment, the supply to the motor is switched off by opening the DPST switch.

PRECAUTIONS TO BE FOLLOWED

- Ensure that some load is applied to the brake drum initially
- Under no circumstances, the motor should be unloaded fully during operation.
- The motor should be cooled by circulating water in the brake drum throughout the experiment.
- It is ensured that the MC (Moving Coil) meters are connected with proper polarities.

RECORD TO BE MAINTAINED

- Laboratory Manual containing the experiments that can be performed with the equipment
- Maintenance Record

S. Kumar
Prepared by

L. C. E.
Approved by

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Principal