

UNDERGRADUATE/POSTGRADUATE/PROJECT/RESEARCH LABORATORY

Laboratory Guidelines for Students

- No special laboratory dress code is prescribed for the lab sessions. The university dress code needs to be adhered to strictly.
- Students need to always follow instructions and use only prescribed test instruments and observe alarms on test instruments when out of range and capacity/ current overflow
- The department prescribes that experiments should be conducted by a group of students and a group should not constitute more than 3 students during conduction of an experiment.
- The laboratory guidelines for perusal of students needs to be prominently displayed in the lab
- Safety measures should be displayed and basic safety features explained, drawing attention to reporting of any electrical sparking, smoke, mains power switch which needs to be deactivated in case of short circuit/grounding, positioning of fire extinguishers and availability of First Aid Kit.
- All undergraduate experiments, and activities should be conducted under the supervision of a faculty.
- For research laboratory experiments, supervision requirement is assessed and determined by the research supervisor. The research lab users should consult their supervisors for specific guidelines. It is recommended that a colleague, or co- researcher should be present for safety purposes.
- Food or beverages are not permitted in the laboratory.
- The Laboratory is to be kept well ventilated at all times. All work should stop immediately if the ventilation is not working properly and experiment conduction resumed only when systems are restored.
- Undergraduate laboratory equipment is only intended to be used for the teaching purpose of undergraduate students and should not be used for any research /project purpose unless prior approval has been given.
- Undergraduate laboratory time slots must be scheduled.
- Laboratory cleanliness must be maintained at all time.
- When the lab assignment has been completed or at the end of the session all soldering tools, instrument accessories, and any remaining components must be returned to their designated locations.

Laboratory Safety Protocols

- Know and follow the safety rules for specific experiments or tasks.
- In case of fire, medical emergency or the need of security follow the emergency procedure of the university
- Report all injuries including minor scratches, cuts, burns, slips and falls to the Laboratory In-charge. First Aid Kits are located in each laboratory

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- Follow electrical safety rules and make sure your hands are dry before using electrical equipment. Make sure electrical wires are connected properly without short circuit before operating.
- It should be ensured that earth wiring is not faulty and all 3 pin power sockets have proper earthing.
- Lab personnel should ensure components and test instruments are safely stored before leaving the laboratory. Ensure the doors to the laboratory are locked before leaving and all students have left the workspace. Power mains to be switched off.

Laboratory Readiness

- Lab Technical staffs are responsible to ensure that all laboratory equipment, used by the undergraduate, is maintained regularly and functioning properly for its intended use. Undergraduate laboratory equipment is to be inspected on a regular basis and proper preventive maintenance should be performed to ensure it is always in a good working condition. Report any problems to the laboratory handling faculty or lab in-charge faculty.
- All electronic must be properly labelled and stored.

WASTE DISPOSAL

Waste Disposal Policy:

- Lab personnel will store the waste material components like used bricks, mixed concrete, used soil samples. Broken or used tiles and etc in a separate container and dispose of the same periodically and also during the engineers day students generally works on reuse of these waste materials for innovative projects and finally disposes by the University waste management personnel's

PROCUREMENT OF NEW/ADDITIONAL TEST INSTRUMENTS , SOFTWARE TOOLS, KITS AND COMPONENTS

- The Lab Maintenance Committee will initiate the NFA for procurement of lab kits, test instruments, software tools and components based on the introduction of experiments in the syllabi after due deliberations in the Board of Studies.
- The budget for augmentation of lab infrastructure or replacement of non repairable equipment will be dimensioned into the departmental budget at the beginning of each academic year.
- All software tools procured will be of licensed version only with provision for updates. Adequate number of licensed software tools will be procured ensuring that each student has independent access on the desktop PC in the labs.
- Based on reports by lab personnel and lab handling faculty, procurement of new

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components such as consumables like cement, kerosene, waste clothes, bricks, steel, tiles, sand, coarse aggregate and etc. will be initiated through local purchase to ensure timely replacement and availability of adequate stocks.

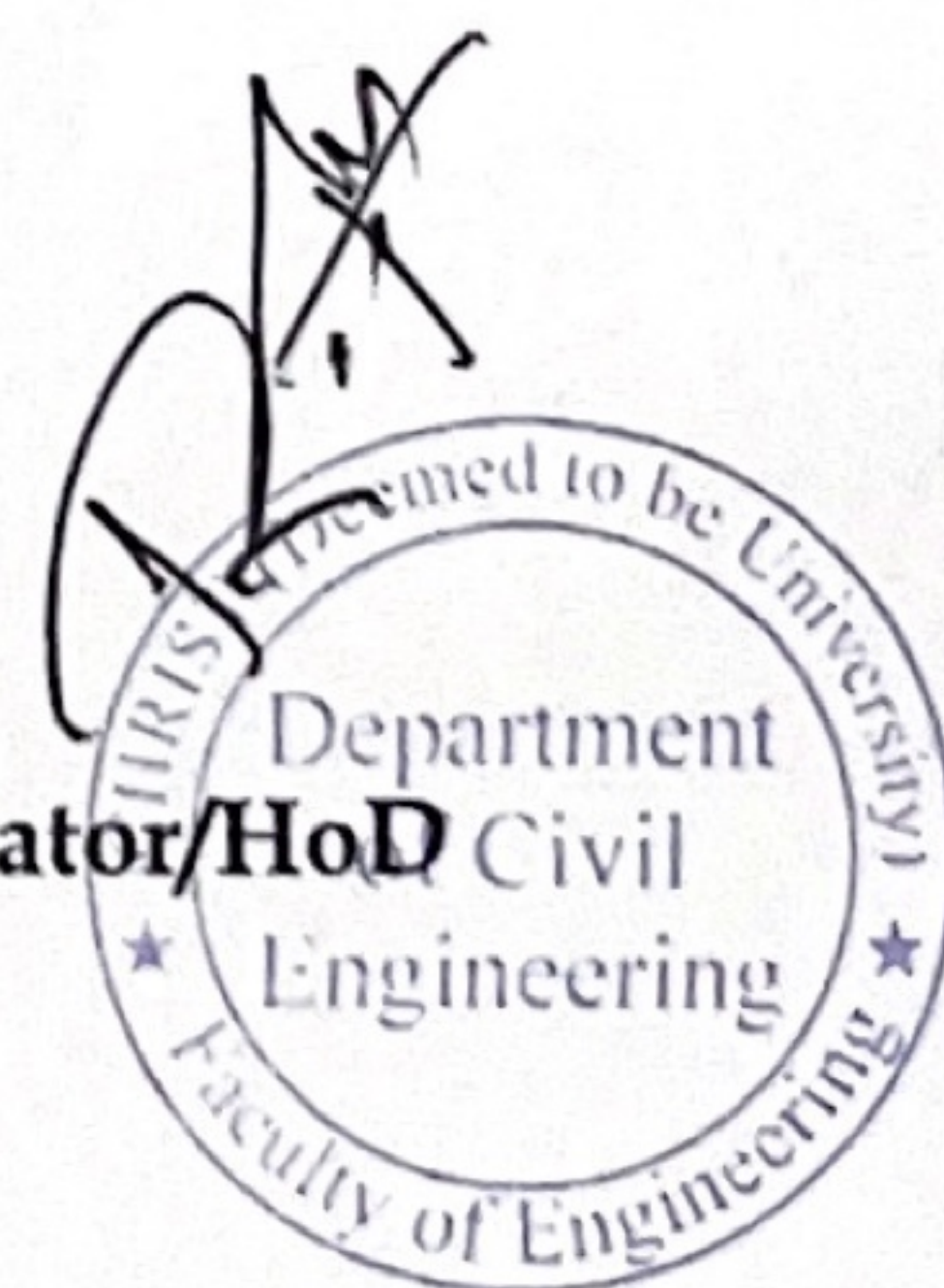
REPAIR AND MAINTENANCE POLICY

- Lab personnel will develop the ability to troubleshoot faulty test instruments such as digital kits, multimeters, power supplies, function generators etc. It is envisaged that minor repairs may need replacement of components, fuse, rectification of dry solder etc.
- For major repairs or repairs on sophisticated test instruments such as compaction testing machine, California bearing ratio machine, loading frame, electro dynamic shake table and etc. the services of external vendors/agencies will be procured after due assessment of the nature of repairs.
- The lab handling faculty will be the point of contact to ensure repairs are carried out with least lead time.
- At no point of time during the duration of a semester should the percentage of faulty equipment exceed 10% of the total available stock of test instruments. For the interim period, test instrument quantities should be sufficiently in excess to cater to such contingencies.
- A fault reporting form will be maintained in hardware laboratories to record reported faulty instruments. The faulty instruments will be tagged and stored separately until repair works are carried out.
- First level or basic calibration of test instruments will be carried out as and when required.

RECORDING OF CONDUCTION OF LAB EXPERIMENT

- Students will record the results of experiments conducted in their observation book or any other means as determined by the laboratory handling faculty.
- The result data and conduction procedure of experiments/programs will be presented in prescribed laboratory record book / files and submitted on due dates as determined by the lab handling faculty.
- The submitted lab record books will be stored for a period of 3 years before they are disposed off.

Signature of Coordinator/HoD



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