



འཛིགས་མེད་དབང་ཕྱག་སྒྲིག་མེ་སྤྱོད་བརྒྱུ་སྒྲུབ་ཁང་།
ལས་མེ་འཆར་གཞི་དང་རིག་ཆལ་གོང་འཕེལ་ལས་ཁུངས།

Jigme Wangchuck Power Training Institute

Department of Workforce Planning and Skills Development

Ministry of Education and Skills Development

Dekiling: Sarpang



Terms of Reference (ToR) for Fablab Manager

Responsibilities:

The FabLab Manager is responsible for the overall management, operation, and strategic development of the Fabrication Laboratory (FabLab). The role includes supervision of FabLab staff, ensuring effective utilization of resources, supporting innovation and prototyping activities, and maintaining a safe, efficient, and collaborative working environment.

1.1 FabLab Operations and Management

- Oversee the day-to-day operations of the FabLab.
- Develop and implement operational procedures and guidelines.
- Manage lab scheduling, access, and usage by trainees, staff, and external users.
- Maintain inventory of tools, materials, and consumables.

1.2 Staff Supervision and Coordination

- Supervise, guide, and coordinate the work of FabLab staff, technicians, and assistants.
- Assign duties and monitor staff performance to ensure efficient lab operations.
- Provide mentorship and technical support to FabLab staff.
- Identify staff training needs and facilitate capacity-building initiatives.
- Ensure adherence to institutional policies and professional standards by all FabLab personnel.

1.3 Equipment Management

- Oversee the operation, maintenance, and calibration of equipment such as:
 - 3D printers
 - Laser cutters
 - CNC machines
 - Vinyl cutters
 - Electronics and prototyping tools
- Coordinate servicing, repairs, and upgrades of equipment.



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- Ensure proper usage and handling of all machines.

1.4 Training and Capacity Building

- Conduct training programs and workshops on digital fabrication technologies.
- Provide technical guidance to students, trainees, and staff.
- Develop user manuals, SOPs, and instructional materials.
- Promote project-based and hands-on learning approaches.

1.5 Innovation and Project Development

- Support prototyping, product development, and innovation projects.
- Encourage interdisciplinary collaboration within the institute.
- Assist in developing prototypes, teaching aids, and functional models.
- Facilitate participation in exhibitions, competitions, and innovation programs.

1.6 Safety and Compliance

- Ensure compliance with safety standards and operational protocols.
- Conduct safety briefings and enforce safe usage of equipment.
- Maintain safety equipment and emergency procedures.

1.7 Collaboration and Outreach

- Promote the FabLab as a hub for innovation and skills development.
- Support partnerships with industries, institutions, and communities.
- Assist in organizing events such as exhibitions, workshops, and TVET fairs.

1.8 Reporting and Documentation

- Prepare periodic reports on FabLab performance and usage.
- Document projects, innovations, and outputs.
- Provide recommendations for improvements and future development.



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2. Required Qualifications

- Bachelor's degree in engineering, Mechatronics, Robotics, Industrial Design, Digital Fabrication, or a related field.

3. Required Skills and Competencies

- Strong technical knowledge of digital fabrication tools and technologies.
- Proficiency in CAD/CAM software (e.g., Fusion 360 or equivalent).
- Knowledge of electronics and prototyping systems.
- Leadership and team management skills.
- Strong communication and training abilities.
- Problem-solving and troubleshooting skills.

4. Experience

- Minimum 1 ss years of relevant experience, including experience in lab management and/or supervising technical staff, is preferred.

(Karma Dorji)
Training Director
JWPTI