Dublin City University
School of Electronic Engineering

Risk Assessment Experimental Method Form for Undergraduate and Taught PG Projects

All operations/procedures being assessed (give specific details):

Modeling and simulation of transmission lines suitable for THz frequencies using MATLAB software. This project involves computational analysis, data processing, and software-based simulations to study the behavior of transmission lines at high frequencies.

Risk Category Rating:

E - Since this project is purely theoretical and computational, the risk level is low. However, care must be taken when using Visual Display Units (computer monitors) for extended periods.

Known or expected hazards associated with the activity:

- Prolonged use of computer screens, leading to eye strain or discomfort.
- Potential data loss or software malfunction during simulations.
- Risk of repetitive strain injuries (RSI) from extended keyboard use.

Precautions to be taken to reduce the level of risk:

- Take regular breaks (e.g., 5-10 minutes every hour) to reduce eye strain and physical fatigue.
- Regularly save work and back up data to prevent loss.
- Ensure all software and tools are properly licensed and maintained.

Training prerequisite:

- Basic understanding of MATLAB software and programming.
- Familiarity with safe ergonomic practices while using a computer.
- Knowledge of data management and backup procedures.

Risk remaining:

The remaining risk is minimal if precautions are followed. However, eye strain and RSI may still occur with improper posture or extended hours of work without breaks.

Emergency procedures:

- In case of software malfunction, restart the software or system and recover using backup files.
- For any physical discomfort (e.g., eye strain, wrist pain), take immediate breaks and adjust workstation ergonomics.
- Seek assistance from IT support if software issues persist.

Detail references if any:

- MATLAB user manuals and software documentation.

<u>For the Project Worker and Project Supervisor:</u>

We have carried out a risk assessment for the above operation/procedure in accordance with those guidelines as detailed in the School Safety Handbook.

Signature of Project Worker..…….…… Date…….

Print name of Project Worker……

Signature of Project Supervisor……..… Date…….

Print name of Project Supervisor……

Print name of Technical Officer assigned to Project……

N.B.

- Copies of completed forms should be submitted to the Project Supervisor and the Technical Officer assigned to the project.
- A signed copy of the completed form should be kept in close proximity to the project bench/space where the project is taking place.