

## project meeting minutes

**Date:** 04-02-2026

**Location:** Stokes Building, DCU.

**Attendees:** Dhanush Kumar Ramesh (Student), Dr. Marissa Condon(Supervisor)

## 1. Agenda

- Discuss the forward model approach
- Usage of Dataset and openEMS exploration
- Novel aspect majorly focusing on Inverse Model

## 2 Key Discussion Points

### Topic A: Technical Approach

- Focus majorly on inverse model as the forward models are already established. Add Novel aspects and find ways to make the inverse model better
- Agreed upon the usage of tuhh si/pi database for training the model and also to use it with random variations. Also to explore the use of openEMS.
- Research and work on finding the methods and logic (that add novel aspect) to the inverse model.

### Topic B: Future Directions

- Defining appropriate objective functions for the inverse model.
- Analyzing openEMS and to provide initial results as soon as results are generated (will be discussed in detail in next meeting)
- Exploration of novel aspects that could be added to the project.

## 3. Decisions Made

- To focus on Inverse model and find what methods can be used.
- Explore openEMS and analyze the data from SI/PI database from TUHH.

## 4. Action Items

Task	Deadline	Status
<b>1. Analyze SI/PI Database</b> to train the model	Immediate	In progress
<b>2. Research on the machine learning methods that can be used for inverse model:</b>	Ongoing	In Progress
<b>3. Dataset Search:</b> Lexplore SI/PI database	Ongoing	In Progress
<b>4. Data Generation Alternatives:</b> Analyse and explore openEMS	Ongoing	In Progress

Task	Deadline	Status
5. <b>Python Feasibility:</b> Explore implementing the Inverse Model in Python	Week 5	To Do
6. <b>Inverse Model Exploration:</b> Research objective functions (Long term)	Ongoing	To Do
7. <b>Novelty:</b> Brainstorm specific novel aspects to add to the project	Ongoing	To Do

Next Meeting

**Date:** 18-02-2026 (Date & Time may change)