

# EEE3097S 2023 ASSIGNMENT 4: FINAL REPORT

Due	22 <sup>nd</sup> Oct 2023 11:55 PM
Number of resubmissions allowed	3
Accept Resubmission Until	24 <sup>th</sup> Oct 2023 11:55 PM
Grade Scale:	Points (max 100.00)

## Assignment Instructions

### Submission Requirements

Please submit your Final Report and in it, you should specify the following:

- **Admin Documents:**
  - A table showing the contribution of each of the team members
  - Snapshot of your project management tool (Trello or such)
  - Link to GitHub repository
  - Timeline and if your progress is on time
- **Requirement analysis:**
  - Discuss the requirements.
  - Analyse the requirements using existing research or reports.
  - Derive the list of requirements.
  - Using proper development, derive the list of specifications from the above list of requirements.
  - For each specification, design acceptance test procedure (ATP). List these as well.
- **Paper Design**
- **Validation using simulations:**
  - Mention the need to do simulation-based validation.
  - List the steps.
  - Discuss in detail the steps you followed.
  - Present the experimental setup and results.
- **Validation using final implementation:**
  - Mention the need to do a hardware-based validation.
  - List the steps.
  - Discuss the detailed steps you followed.
  - Present the experimental setup and results.
- **Consolidation of ATPs and Future Plan:**
  - Recreate the ATPs from your previous section.
  - In a table mention each ATP and mention if this has been met in your design
    - If an ATP has not been met then comment why and either change the design or change the specifications.

- If you change the specifications (due to unmet ATPs) then tabulate the specifications again showing the previous version and the new version.
- Based on the above discussions, list a set of future work you deeply believe would be necessary before your module can be used in a practical setting.

- **Conclusion:**

- Summarize your work

**Don't forget to reference!**

## Rubric

	<b>Marks</b>
Admin Documents	Final mark scaled by 1/0
Requirements analysis	20
Paper Design	20
Validation using simulations	20
Validation using final implementation	20
Consolidation of ATPs and Future Plans	12
Conclusion	3
Weekly review submissions	5
Total	100

**Warning: If you don't get a score of 1 for the Admin Documents subsection, your final mark will be scaled to zero!**

## Bonus marks

Follow the guidelines to acoustic tracking within the project description and clearly include documentations on the different stated sections to earn the bonus marks

	<b>Marks</b>
Extended Signal Processing	4
Dynamic Time Delay Estimation	4
Source Localization Updates	4
Visual Representation	4
Performance Evaluation	4
<b>Total</b>	20

Document the implementation of the acoustic source tracking functionality, including the modifications made to the existing system, the algorithms used, and the results obtained. Present the findings, challenges faced, and insights gained during the implementation process.

## **Extras**

- Name your submission as follows (or lose **5%**):  
EEE3097S\_2023\_FINAL\_REPORT\_GROUP\_#\_STDNUM001\_STDNUM002\_S  
TDNUM003.pdf
- You will have 3 resubmissions.
- Late penalty will be 5% per day, until 5 days after the due date, when you will no longer be able to submit your document.