Writing a Scientific Report

Sections of a Scientific Report

- Title
- Abstract

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1. Introduction
2. Method
3. Results
4. Discussion
5. Acknowledgements
6. References /Bibliography
7. Appendices

ABSTRACT

INTRODUCTION

- Purpose
- Scientific Literature Relevant to the Topic
- The Objective

METHOD

- Describe your experimental design clearly.
- Explain clearly how you carried out your work.
- Subheadings work well for this purpose.

RESULTS

Objectively present your results without interpretation.

DISCUSSION

The function of the Discussion is to interpret your results with respect to the objective of the project.

ACKNOWLEDGEMENTS

REFERENCES / BIBLIOGRAPHY

[1] W.-K. Chen, *Linear Networks and Systems* (book style), Belmont, CA: Wadsworth, 1993, pp. 123–135.

[2] H. Poor, *An Introduction to Signal Detection and Estimation*, New York: Springer-Verlag, 1985, ch. 4.

[3] B. Smith, “An approach to graphs of linear forms”, (Unpublished work style) unpublished.

[4] J. Jones. Networks (2nd ed.) [Online], Available: http://www.atm.com, (1991, May 10).

APPENDICES

Appendix I - Circuit Diagram

Appendix II - PCB Layout

Appendix III - Algorithm of …….

ABSTRACT

An abstract summarizes, in one paragraph (usually), the major aspects of the entire report.

- State the purpose very clearly in the first or second sentence. (from Introduction)
- The experimental design and methods used, (from Methods)
- The quantitative results, or trends (from Results)
- Brief summary of your interpretations and conclusions. (from Discussion)

This therefore is the last section you should be writing.

Writing the Abstract

Style:
The Abstract is ONLY text. Use active voice when possible, but much of it may require passive constructions.

Write your Abstract using concise, but complete sentences, and get to the point quickly.

Figures and Tables

Figures must be numbered and must have a caption at the bottom of the figure.

Tables must be numbered and must include a caption on the top of the table.

They must be referred to in the main body text.

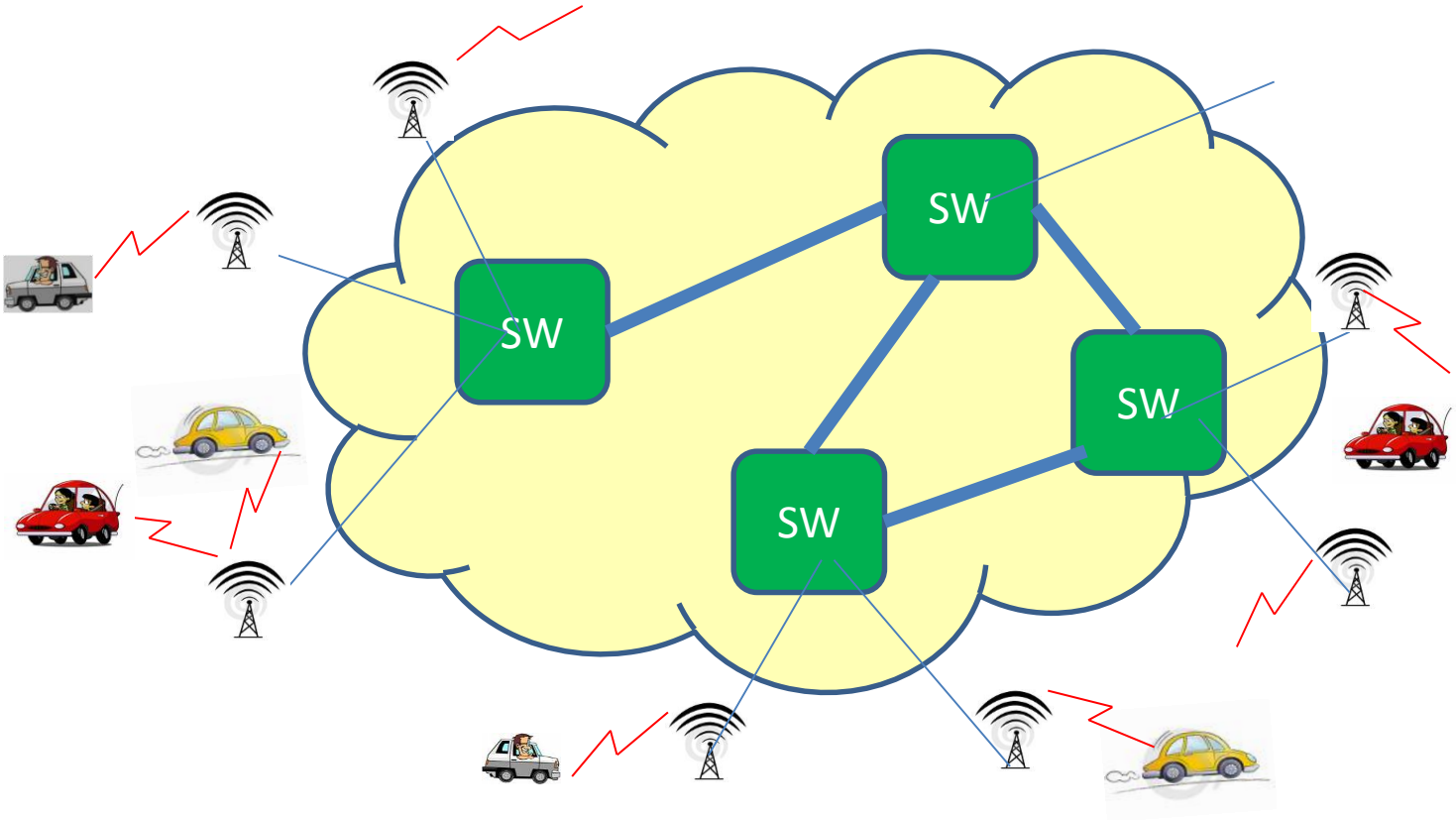

Fig:1 A mobile communication system

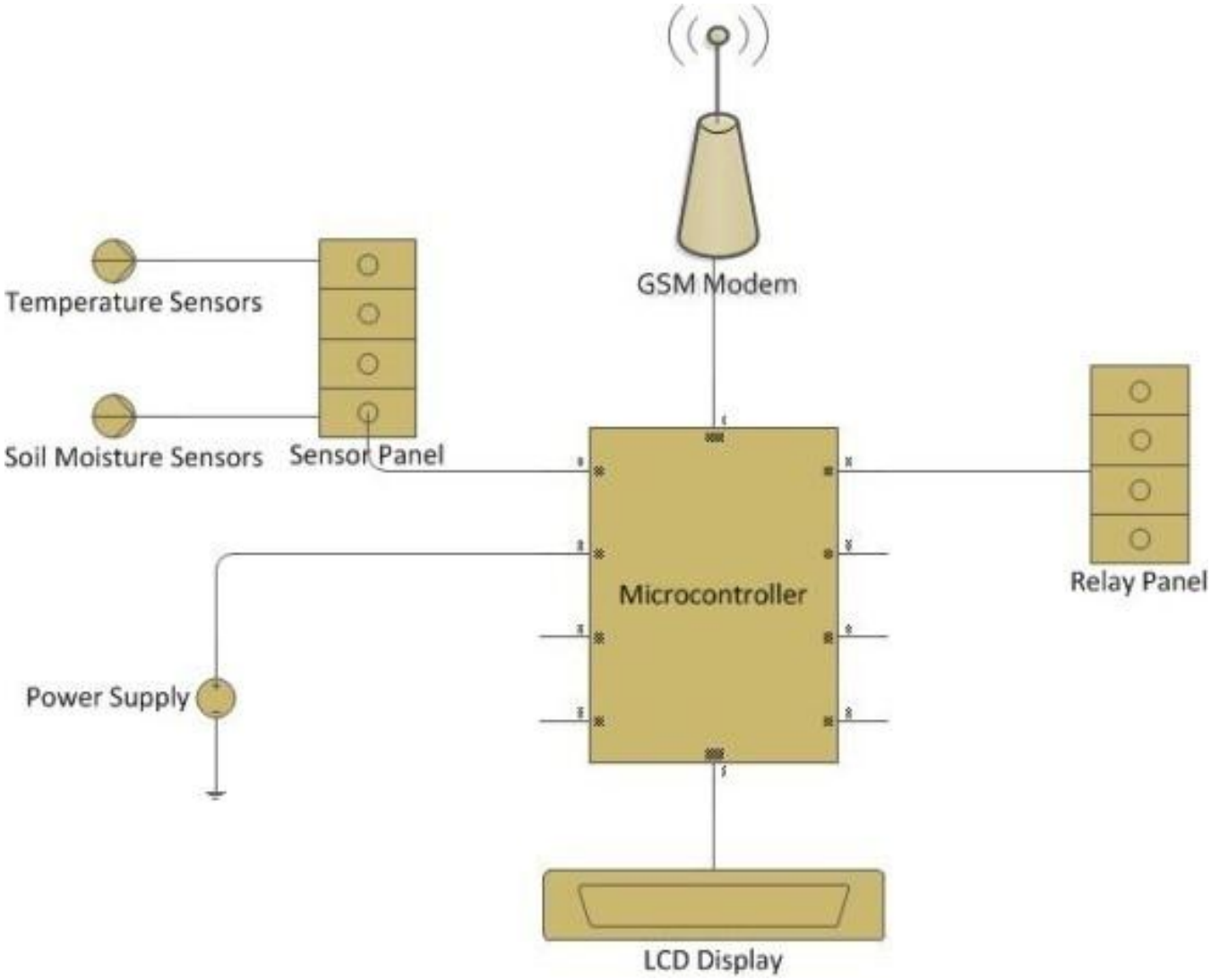

Figure:2 Architecture of the overall controlling unit

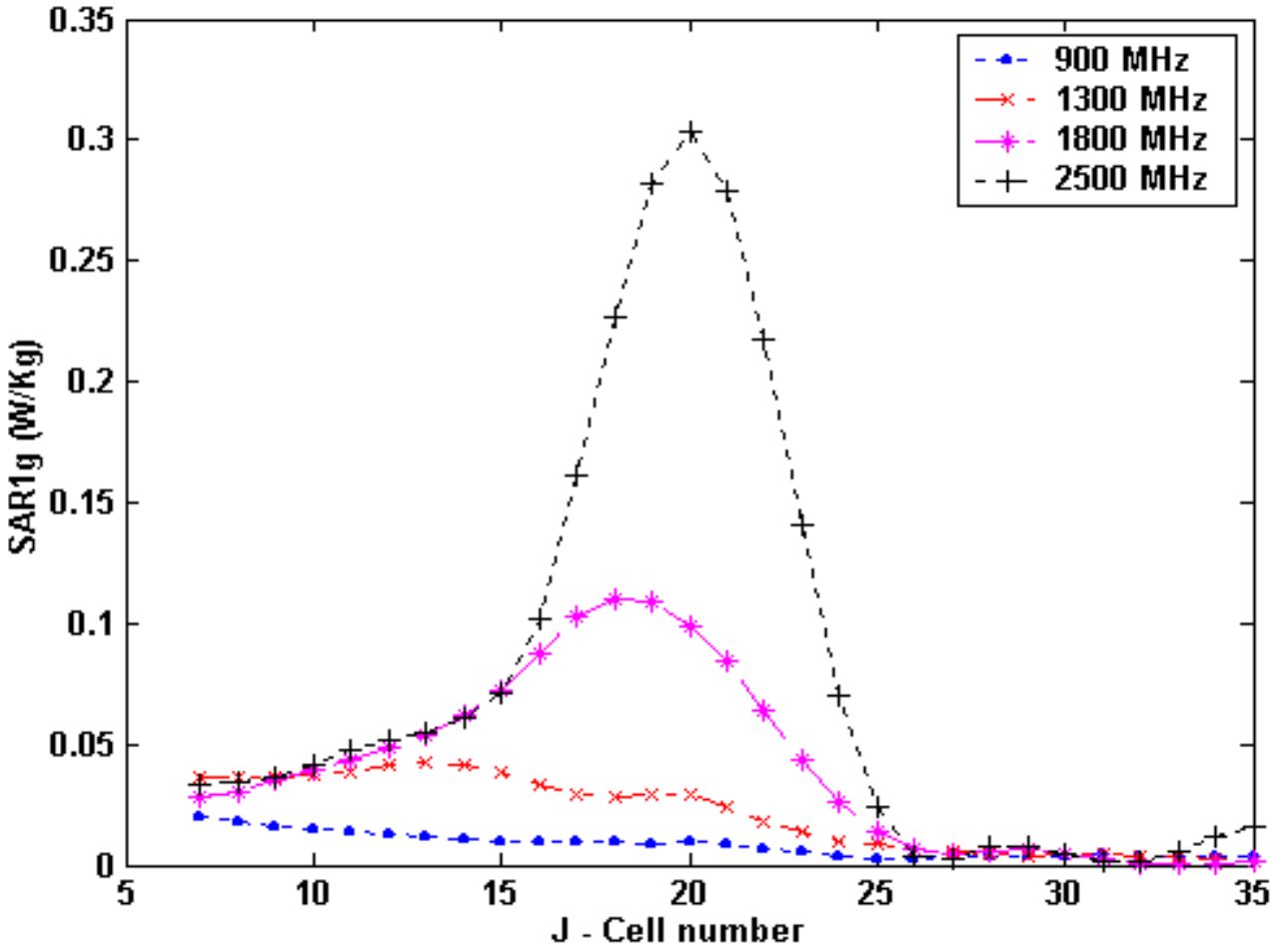

Fig:3 Energy absorption in the eye due to RF exposure

Table I – Path Loss Exponent for each category

Category	Path Loss Exponent n_C
Open – Open (LOS)	1.21
Open – Corridor (NLOS)	2.19
Open - Lab (NLOS)	1.6
Corridor – Corridor (LOS)	1.3
Corridor – (NLOS)	1.5
Lab – Lab (Line of sight)	1.66
Lab – (NLOS)	3.1
Open – Open (with 1 floor separation)	1.21
Open – Corridor (with 1 floor separation)	2.19

Table II – Standard deviation & Maximum deviation for different scenarios

Link Category (Location of transmitter & receiver)	**Standard deviation (dBm)**	**Maximum Deviation (dBm)**
Open – Open (LOS)	0.468	4.77
Open – Corridor (NLOS)	3.11	5.87
Open - Lab (NLOS)	2.84	5.52
Corridor – Corridor (LOS)	0.537	5.04
Corridor – (NLOS)	3.19	6.82
Lab – Lab (LOS)	0.62	3.36
Lab – (NLOS)	2.49	8.21
Open – Open(with 1 floor separation)	0.96	6.16
Open – Corridor(with 1 floor separation)	1.24	6.72

In Summary

Cover Page

Department of Electronic & Telecommunication Engineering
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Line Following Robot

Abayatilake, G.S.P.P.S.	120002
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Supervisor: Mr Eranga Fernando

This report is submitted as partial fulfillment of module EN1092

June 2014

TABLE OF CONTENTS

Section of Paper	**The process**
Abstract	What did I do in a nutshell?
Introduction	What is the problem?
Method	How did I solve the problem?
Results	What did I find out?
Discussion	What does it mean?
Acknowledgements	Who helped me out?
References / Bibliography	Whose work did I refer to?
Appendices	Extra Information

Organize your write up

in an orderly and logical sequence

Style of writing

Keep it Simple.

Write short sentences.

Avoid use of the first person.

Maintain a logical flow.

Format

A4 – paper; 1” margin; Font: Times Roman

TITLE

Title of the project
(font size 14 – first letter capitalized – bold)

ABSTRACT

(font size 10 – bold)

From Abstract onwards,

the report should be in double column with font size 11.

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