

Project Report Guidelines ECE753 (Antennas)

1. General Requirements

The Antenna Design Project must involve significant hands-on work, preferably with professional design software, fabrication and measurements. Where fabrication is impossible (due to time and financial limitations), rigorous software verification is required. In exceptional cases, the Design Project may involve a review of the state-of-the-art of an advanced application of antenna engineering. In such cases, in addition to a written report, the project work must be completed by a presentation (minimum 30 minutes).

The topics of the design projects must fall within the general scope of antenna engineering.

2. Design Project Proposals

Students may propose their own topic for a design project or may choose a topic from the collection posted on the course webpage.

A project proposal must be submitted no later than the end of the 1st week of April and must be reviewed and approved by the Instructor.

The project proposal must not exceed 1 page and must contain: (i) brief description of the antenna/device functionality and its applications in technology, (ii) design specifications, (iii) references.

3. Preparation of Project Report

The Project Report must not exceed 20 pages in total. It must include the following sections:

- A. Title, Author, and Date of Submission
- B. Abstract (summarizes the report work)
- C. Introduction: summarizes the state-of-the-art and the design methodologies; provides the literature sources such as publications in journals/conferences or online material, which were used by the author to arrive at an initial design and configuration.
- D. Summary of the Design Specifications
- E. Initial Design (with detailed explanation on the choices made)
- F. Design Optimization and Tuning
- G. Final Design (geometry/circuit technical documentation accompanied by plots proving design performance)
- H. Reference List

The student must provide ample evidence using tables, figures, plots and illustrations of the design work she/he has performed. Such illustrative material must also be used to quantify the performance of the design. In summary, the Project Report must resemble as closely as possible the technical documentation required from the designer in an industrial setting.