

Department of Electrical & Computer Engineering  
The University of Kansas

EECS 611, Spring 2019  
**Semester Project**

I would like each of you to do a literature search on some aspect of the material we are covering in 611. The deliverable of this project will be a written report and a presentation to be given to the class. The oral presentations will be given sometime in the last four weeks of the semester, and the written report will be due within the last week of the semester.

You can choose any subject that is pertinent to this course. The project can be either a general tutorial on some aspect of EMC design or measurement, or it can describe a specific problem and the measures used to overcome it. I'm also open to other ideas, if you happen to think of any.

There are a number of both print and online publications that discuss EMC/EMI issues. Among them are:

Compliance Engineering, [www.incompliancemag.com/magazine/](http://www.incompliancemag.com/magazine/)

Interference Technology, [www.interferencetechnology.com](http://www.interferencetechnology.com)

EDN (Electronic Design News) [www.edn.com](http://www.edn.com)

Evaluation Engineering [www.evaluationengineering.com](http://www.evaluationengineering.com)

IEEE Transactions on Electromagnetic Compatibility  
<http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=15>

You can also use various search engines and databases to aid in your search. Search engines like Google are particularly useful in the early stages of a search, since they can uncover a wide range of material, including some journal articles.

The best way to search for referred journal and conference papers is by using database services available from the KU Library. Probably the best of these is the Compendex Index, which can be found through the KU Library page at: <http://lib.ku.edu/databases-by-subject/engineering>, or directly at the address: [www.engineeringvillage2.org/](http://www.engineeringvillage2.org/).

In this report, you will probably cite a wide range of sources. Citing these sources correctly is an important part of producing a professional report. Prof. Sterbenz has provided an excellent summary of how references should be cited in engineering documents:  
[www.ittc.ku.edu/~jpbs/courses/source-cite.html](http://www.ittc.ku.edu/~jpbs/courses/source-cite.html)

To aid you in hitting your objective, I would like you to identify your topics by Friday, February 2. What I'll want on that day is a short summary (one paragraph will do) of what you want to do.

## Possible Topics

Electrostatic Discharge (ESD) hardening in products

Connectors

Switching power supplies

Shielding enclosure hardware

EMI in audio systems

Crosstalk in integrated circuits

Compliance testing

Emerging EMC standards

Measuring shielding effectiveness

Specific EMC/EMI issues in automobiles, aircraft, spacecraft, etc.

Safety grounding

Lightning grounding

EMC/EMI issues for motors

EMC/EMI modeling methods and software

PCB routing software for EMC

Power Quality