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# Project 5 Suggestions

ELE 420 / 520 Cyber-Physical Security

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## Project 5 for ELE 520

- An implementation work similar to the amount of work you observed in previous projects
  - Related to security, resilience, network analysis, cyber-physical systems, Internet-of-things, or other topics you would like to discuss with me
- Examples:
  - Simplified implementation of the evaluation of the paper you read
  - Some related side project of your research
    - Please do not directly re-use the work that you have done or published already
  - Simplified attacks you read about
  - Fundamental network profiling through Zeek

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## Report Requirement

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- Follow IEEE Transaction Template (double-column)
- No more than 3 pages (not counting references and appendix)
  - You can attach snapshots or code snippets in the Appendix if that helps
  - No restriction on the number of pages for references and appendix
- Critical contents
  - What you try to implement
  - Why you choose this approach
  - The critical results that you find
  - The procedure to run your codes

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## Turn-in

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- Deadline: May 9<sup>th</sup>, 11:59pm EST
- Include all source codes and the report in a single zip file, being named as “<Your Last Name>, <Your First Name>\_Project 5.zip”
- Upload the zip file in Brightspace

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## AI Usage Marking

- To enable responsible and effective AI usage, all students are required to add **AI usage marking** with their codes and final reports according to the guidelines in the next slides.
  - Codes: put marking in the comments at the top of your codes
  - Report: put marking at the end of the report
- Using generative AI tools, like ChatGPT or Claude, can be helpful, but requires solid learning and responsibility.
  - Please note that effective usage of generative AI tools may take you more time than not using them.
- We adopt AI Usage Marking, developed by the URI CYPHER Center ([www.uri.edu/cypher](http://www.uri.edu/cypher)) and initiated by CYPHER's CAIO, Prof. Yan Lindsay Sun, with contributions from CYPHER faculty and student members

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## AI Usage Marking

### A0 — Human Authored

Content created entirely by a human author.

### A1 — AI-Edited

AI tools were used for grammar, clarity, and formatting.

### A2 — AI-Assisted Ideation

AI tools were used for brainstorming and outlining; the document was written, reviewed, and approved by the human author.

### A3 — AI-Assisted Drafting

AI tools were used to generate portions of the draft; the human author verified and revised the content.

### A4 — AI-Generated

AI tools generated most or all of the content; human review was performed at a high level.

### A5 — Fully AI-Generated

The document was generated entirely by AI tools, with minimal or no human review. It should be treated as one of multiple possible information sources.

### Example:

Cyberattacks on industrial control systems (ICSs) such as power grids exhibit unique characteristics.

By crafting attacks in legitimate formats, adversaries can compromise control signals or measurement data to trigger irreversible disruptions. Real-world incidents, e.g., the Ukrainian power grid breaches and Stuxnet, demonstrate both the sophistication required to disrupt physical processes and the stealth needed to evade existing industrial control network defenses [1], [2].

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[A1 – AI-Edited]

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