Project Proposal

Due Date: 11:59 PM, 11/03/2025 (Presentation) and 11/05/2025 (Report)

You should create a single GitHub repository for this class and share it with the instructor (khalidjm@seas.ucla.edu). All homeworks, reports, presentations, and the proposal should be uploaded to this repository. Do not create a separate repository for each assignment.

Within your repository, create a folder named proposal and upload two files: the written proposal as proposal.pdf and the presentation as proposal_presentation.pdf or proposal_presentation.pptx. You may also include the source files (e.g., .tex files and figures), but make sure that the compiled proposal and presentation are available in the specified formats (PDF or PowerPoint) only.

To prepare your proposal, use the LaTeX or MS Word template specified in the syllabus.

Project Proposal (no code/implementation required).

The proposal should present the *main idea* of your project. No code or implementation is necessary at this stage.

Each team (consisting of one or two students) will also give a brief **2-minute presentation** in class, limited to **two (2) slides**. You may use more than two slides or short video clips if necessary to convey your idea, but the total presentation time should not exceed 2 minutes.

Include (i) a problem statement and motivation, (ii) **background & literature review** that situates your idea in prior work, and (iii) your proposed approach and anticipated contributions. The project should go beyond the examples we did in class and homeworks, and simulate a robotic, structural, or engineering system not covered in examples and homeworks. You can re-use the contents from your proposal, e.g., literature review, in your final report.

Literature Review and references: Summarize and critically discuss related work; clearly explain how your idea is similar to or different from prior art. Include at least **five (5)** scholarly references. Format the bibliography using a standard style such as **IEEE** or **APA**.

As mentioned in the syllabus, the main text should not exceed **4 pages** (excluding the bibliography). To prepare your proposal, use the LaTeX or MS Word template specified in the syllabus.