EE407 - Project Evaluation Rubric

In accordance with the previously announced project menu guidelines, the following project evaluation rubric will be used to assess your demonstrations and reports. **The idea is that you are the designer of a new experiment for students.** Your project reports should be given in the form of an lab **experiment sheet**: You are required to provide background material, experimental steps and their expected results, followed by questions & comment requests. We believe the ability to ask these questions is as beneficial (if not more beneficial) as being able to answer them. If you require further clarification, please contact one of the course assistants for guidance.

Category	Subcategory	Perfect Deliverable (earning 10 points)	Score: 1 (Poor) to 10 (Excellent)
Tech. Content and Implementation	Quality of Physical Setup	The setup is well designed and well constructed. It is mechanically sound. The cabling is organized and electronics is reliable with no unexpected behavior. The setup demonstrates well the intended application.	
	Algorithmic Content (Depends on project: System Identification and/or Control)	Project content correlates well with concepts discussed in EE302/EE407. Data collected with relevant scenarios. Developed model(s) evaluated and compared with validation data. Models used to develop at least two different feedback controllers which are clearly described. Performance measures (e.g., rise-time settling-time, overshoot, mean squared error) relevant to the problem are defined.	
	Overall Performance	Experiments are performed in relevant scenarios and results properly collected. The developed models reasonably fit the validation data. Controllers have robust performance under different initial conditions with respect to defined performance criteria. You are advised to record videos as a proof of performance just in case things fail during the demonstration in case parts that cannot be brought into the lab.	
Expell. Manrime (Report)	Document Structure & Quality of Language Used	Document looks and feels like a proper experiment manual. All parts of the document are present and have the relevant content. Syntax and grammatical errors are rare and do not result in the loss of clarity.	
	Setup Description	All parts of the system as well as why one needs to use them are clearly described. A general block diagram is given. A wiring (interconnection) diagram is provided. The reader is clear about how to construct the system and conduct the experiment.	
	Background Content & Preliminary Work Questions	A discussion of theoretical background for the setup and algorithms is provided. Preliminary work questions should strengthen the understanding of background content and prepare the reader to carry out the experimental steps. All expected answers should also be provided.	
	Experimental Procedure & Expected results	Experimental procedure steps are meaningful and reasonable to follow. The reader who studied the background and preliminary work would need little or no help in performing the experiment. The procedure helps the reader to gain a better understanding of how and why the system works. There is clear information about expected outcomes	
	Questions & Expected Answers	Questions are meaningful and guide (help) the reader interpret the results of the experiment. The suggested answers to the questions make sense and are accurate.	