

ECE 18-755: Networks in the Real World

Milestone 4 - Final Project Guidelines

M4 is scheduled on **Thursday Dec 7, 10:00am-12:00pm, in HH1107¹**. In contrast to our previous milestones, M4 is organized as a mini-workshop, *i.e.*, the *Networks in the Real World Workshop (NRW²) 2017!* NRW² consists of the following main components:

- A *poster session with demo*.
- A *detailed report* (up to 8 pages) containing the description of your project and final results.
- An *EasyChair review process* where each student will review a few projects.
- *Full project documentation* containing the source code and all relevant materials to your project.

Note: During the poster session a *Best Project Award* will be decided and announced in class. Everything counts towards this, *i.e.*, quality of demo, poster appearance, and overall results. You should do your best to win this award as it carries a bonus of 50 extra points that will be added directly to the total points!

1. POSTER / DEMO

A poster template will be provided on Canvas under the M4 folder. However, feel free to modify it as you see fit; the suggested size for the poster is (24x30) in. Of note, you are fully responsible for printing your poster so make sure you plan accordingly and have it ready in a timely manner.

We will start at 10:00am sharp. Each group will have (exactly) **90 seconds** to pitch their project (*e.g.*, say what's the most exciting finding of the project, what the demo looks like, *etc.*), then we'll go around, ask questions and/or see demos (until 11:00am, approximately). During your demo, you should try to convince the audience about the significance and quality of your work. Also, keep in mind that the time to visit your poster is limited so plan in advance what you want to show and how much time that would take.

Between 11:00-11:15am, we'll vote for the Best Project Award and announce the winning project at around 11:30am. The winners will get a diploma and a small gift. Finally, we'll take pictures, eat cookies, and have fun! Everything should be done by 12:00 noon.

2. PROJECT REPORT

The final report (in PDF format), code and documentation are due **by Monday Dec 11, 12:00 noon**. We will collect all reports and create a single PDF file that will be posted on Canvas shortly after that (*e.g.*, by December 15th). This way, you'll be able to download the comprehensive final report and have it as a reference material from this class.

The project report should have **up to 8 pages** - two-column format, 10 or 11 pt. font, single spaced lines - including text, figures, tables, references. The report should be written as if for publication.

Of note, this report is more formal than previous reports in this class. All tables/figures/illustrations should be labeled and numbered, and referred to by numbers in the report body. Include only those diagrams, simulation results, and other material necessary to support the claims made in your report, or as are required below.

¹ Note the earlier starting time (10:00am) and the different location (HH1107) compared to regular classes.

1	Title & Author(s)	
2	Abstract	<ul style="list-style-type: none"> • Provide an overview of the project, approach, and results (~150 words)
3	Introduction & Motivation	<ul style="list-style-type: none"> • Present the big picture. Give an informal description of the problem. • What is interesting about your project?
4	Prior Work	<ul style="list-style-type: none"> • Provide references relevant to your project. • Try to put your work into perspective.
5	Approach	<ul style="list-style-type: none"> • Formulate the problem. What is your approach? What are your assumptions? • Explain your methodology. Use simple examples to illustrate your ideas. • Describe your unique contribution, as applicable.
6	Results	<ul style="list-style-type: none"> • Present your main results (tables, plots and/or diagrams, etc.) • Comment on limitations and possible solutions.
7	Conclusion & Future Work	<ul style="list-style-type: none"> • Summarize your main ideas and findings. What is the impact of your work? • Comment on possible future work.
8	Lessons Learned	<ul style="list-style-type: none"> • Indicate what you have learned throughout the project.

Also, check the material under “*Resources*” on the class website to better organize your presentation and material for the report. ***Do spell check.*** And remember: *keep the report within 8 pages!*

3. THE EasyChair SYSTEM FOR PEER REVIEWING (single-blind review)

For each project, the M3 report should be submitted as a PDF file to *both* EasyChair and Canvas.

- All M3 reports are due by **Nov 26, midnight**; then, each student will be assigned a few projects to review; this is an important part of the final project, so you will be graded on the quality of your review. The review process will last between **Nov 27-Dec 4** (closing on Dec 4th at midnight).
- After the review process is completed, the final (revised) version of the project report incorporating reviewers’ comments is due on **Dec 11th by 12 noon** (on Canvas).

We will provide detailed instructions to accessing EasyChair and the review process in a separate email.

4. PROJECT CODE & DOCUMENTATION

You need to provide detailed comments at source code level such that various algorithms, data structures, and dependencies in your program can be easily understood. Also, you need to provide separate README files about how to compile and use your software. In the README file, clearly describe what the meaning and allowable values of different parameters are. Finally, the source code should be available so we can check it after the in-class demo.

Last but not least, the **total points for the final milestone: 300 pts.**

- **Poster presentation & demo:** 100 pts (50 pts. poster + 50 pts. demo)
- **Project report:** 75 pts. (introduction and motivation: 15 pts., approach: 25 pts., results: 20 pts., writing style and overall quality: 15 pts.). This will reflect the quality of your report.
- **Project reviews:** 75 pts. This will reflect the quality of your review of other students’ reports.
- **Project code & documentation:** 50 pts. All source code should be submitted within a zip called *andrewID_project_code.zip* along with the submission of the final report (**Dec 11 by 12:00 noon**).

Of note, you are required to upload all these materials on the Canvas by the due dates.

Good Luck!