COEN 6731 In-Class Paper Presentation: Guidelines and Paper List

1 General Instructions

- **Duration**: Each presentation should last **20–25 minutes** (15–20 slides), followed by **20–30 minutes of Q&A**.
- **Q&A Participation**: All students are expected to actively participate in the Q&A session. Participation and discussion are part of the evaluation. You should read the papers beforehand.
- **Slide Submission**: Upload your slides on **Moodle at least 24 hours before your presentation**. Slides will be shared with the class to facilitate preparation for the discussion.

2 Presentation Content

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The first and most important step is to thoroughly understand the paper :)
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Your presentation should include the following sections:

2.1 Introduction

- **Background and Motivation**: Explain why the problem addressed in the paper is important and relevant.
- Connect the paper's problem to broader topics discussed in the course, if possible.

2.2 Design

- **Design Overview**: Provide a high-level summary of the proposed approach. Focus on clarity to ensure your audience understands the core idea.
- **Design Details**: Dive deeper into specific mechanisms and explain how they work.
- Use **AT LEAST TWO examples** to illustrate key aspects of the design. Visual aids such as diagrams and flowcharts are encouraged.

2.3 Implementation and Evaluation

- **Experimental Setup**: Describe the environment, testbed, workloads, benchmarks, or other tools used in the experiments.
- **Results**: Summarize the paper's key findings and discuss the implications of these results. Highlight any figures, tables, or charts that are particularly informative.

2.4 Critical Analysis

- Discuss **at least two strong points** of the paper (e.g., novelty, thoroughness, applicability).
- Discuss **at least two weak points** of the paper (e.g., limitations, assumptions, unclear aspects). Be constructive in your critique.

2.5 The Don'ts

- **Do not read directly from your slides.** Slides are meant to support your explanation, not replace it. Simply reading slides makes the presentation hard to follow and unengaging.
- **Do not merely repeat the paper word-for-word.** Your goal is not to restate the paper, but to *explain* it. Use plain language, intuition, and concrete examples to help the audience understand the underlying mechanisms.
- **Do not overload slides with text or equations.** Prioritize clarity over completeness. Highlight key ideas and walk the audience through them verbally.
- **Do not assume the audience has read the paper.** Even though students are required to read the paper beforehand, your presentation should be self-contained and understandable on its own.

3 Evaluation Criteria

Your presentation will be evaluated based on:

- **Content**: Completeness, clarity, and depth of understanding.
- **Delivery**: Communication skills, slide quality, and time management.
- **Engagement**: Ability to encourage class participation during the Q&A session.
- **Critical Thinking**: Insightfulness of your analysis and critique.

Note: You are not required to have slides explicitly titled "Critical Thinking" or "Engagement." These criteria assess the quality demonstrated throughout the presentation, not whether the terms are mentioned or labeled.

4 The Paper List

Protocol	Full Paper Title	Venue
Adaptive BFT	BFTBrain: Adaptive BFT Consensus with Reinforcement Learning	NSDI'25
EPaxos	There Is More Consensus in Egalitarian Parliaments (Egalitarian Paxos)	SOSP'13
QuePaxa	QuePaxa: Escaping the tyranny of timeouts in consensus	SOSP'23
NoPaxos	Just Say NO to Paxos Overhead: Replacing Consensus with Network-Ordered Paxos	OSDI'16
HotStuff	HotStuff: BFT Consensus with Linearity and Responsiveness	PODC'19
Pompe	Byzantine Ordered Consensus without Byzantine Oligarchy	OSDI'20
Kauri	Scalable BFT Consensus with Pipelined Tree-Based Dissemination and Aggregation	SOSP'21
Narwhal and Tusk	Narwhal and Tusk: A DAG-based Mempool and Efficient BFT Consensus	Eurosys'22
Autobahn	Autobahn: Seamless High-Speed BFT	SOSP'24
Chop-Chop	Chop Chop: Byzantine Atomic Broadcast to the Network Limit	OSDI'24
RBFT	RBFT: Redundant Byzantine Fault Tolerance	ICDCS'13
Aardvark	Making Byzantine Fault Tolerant Systems Tolerate Byzantine Faults	NSDI'09
PrestigeBFT	PrestigeBFT: Revolutionizing View Changes in BFT Consensus Algorithms with Reputation Mechanisms	ICDE'24
HoneyBadger	The Honey Badger of BFT Protocols	CCS'16
Basil	Basil: Breaking up BFT with ACID (transactions)	SOSP'21
Harmony	HARMONY: A Scalable Distributed Vector Database for High-Throughput Approximate Nearest Neighbor Search	SIGMOD'25

Table 1: Paper presentation list.