ROB 537: 
Learning-Based Control

Week 3, Lecture 2 
Project Discussion

Announcements:
Background paper due 10/19 
HW 2 Due on 10/23

How to do a project in 8 weeks

• Four steps:
  – Project proposal (Topic selection)
  – Paper intro & background
  – Paper draft
  – Final paper
How to do a project in 8 weeks

• Four steps:
  – Project proposal (Topic selection) week 1
  – Paper Intro & background week 2
  – Paper draft week 6
  – Final paper week 8

  – Let’s discuss each one

Paper: Intro & Background

• Introduction
  – What is the interesting problem: big picture?
  – What is the difficulty?
  – What is the significance of solving this problem
  – What do you intend to do?
  – What is the contribution of this paper?
  – What is coming in the next paragraphs?

• Background
  – Specifics about the problem
  – Key background needed to understand/solve the problem

  – General approaches to the problem
  – Related work addressing these problems

• References
  – Most should be here
Paper: Draft

- **Abstract**
  - 1 paragraph "ad" for the paper
  - Each section below should have 1-2 sentence summaries
- **Introduction**
- **Background**
- **Method**
  - What is your solution
  - Describe algorithm/theory
- **Results**
  - Describe set of experiments you will conduct
  - Give preliminary results
- **References**
  - Full list

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Paper: Final Paper

- **Abstract**
  - 1 paragraph "ad" for the paper
  - Each section below should have 1-2 sentence summaries
- **Introduction**
- **Background**
- **Method**
- **Results**
  - Describe set of experiments you will conduct
  - Give detailed results
  - Provide Analysis on the results
- **Discussion/conclusion**
  - Key contributions of paper
  - Key insight
  - Future work
- **References**
Project Discussion

• Four steps:
  – Project proposal (Topic selection)  5
  – Paper intro & background  10
  – Paper draft  15
  – Final paper  50

  – Presentation  20
  – Team performance  +/- 10%

Team Performance

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<th>TM 1</th>
<th>TM 2</th>
<th>TM 3</th>
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<td>Technical direction</td>
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<td>Coding contribution</td>
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<td>Writing contribution</td>
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<tr>
<td>Percentage effort</td>
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• First four rows are scored out of 3 (3 is best)

• Last one is summary contribution and needs to sum to 100.

• All members need to agree to one table per team
  – This is due with every paper you submit
Team Performance: Example

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Team Performance: What happens if …

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