Writing a Conference Research Paper

Miguel A. Labrador
Department of Computer Science & Engineering
labrador@csee.usf.edu
http://www.csee.usf.edu/~labrador
Components

- Title, affiliations, authors’ information
- Abstract
- Introduction and motivation
- Related work
- Your stuff
  - Explanation of simulation setup, experimental network, etc. and parameters used, performance metrics utilized, etc.
  - Performance results
- Conclusions and future work
- Acknowledgments
- References
Title, affiliations, authors’ information

- Title of the paper
- Name of the author(s)
- Affiliation
- Email, telephone numbers
- Corresponding author indication
- Supporting agency indication
Abstract

• Abstract summarizes the major aspects of the paper
• One paragraph long with:
  – Purpose of the paper
    • General description of the area the paper is related to, description of
      the problem to be investigated, problem with current approaches and
      current situation
  – Methods used
    • Your solution, your approach to solve the current problem
    • What and why is novel
  – Major results
  – Conclusions
• Contains no references, acronyms, abbreviations, figures, images
• Clear and focused
Introduction and motivation

• A story!!!
• Starts in a general context and describes the scenario or area that the paper is related to
• The story is progressively narrowed down describing the problems of the current situation, approaches, etc.
• The story finally describes the problem at hand, i.e., the problem that you are solving in this paper
  – Problem statement or problem definition
• Your story must be VERY compelling
  – Must convince the reader that your area and problem are VERY important otherwise he/she will NOT read your paper further
  – What is novel about your approach
• End with a paragraph with the paper organization
• An expanded, more specific version of the abstract
Related work

• In this part of your paper, you must include briefs descriptions of other researchers’ approaches in solving the problem at hand
  – Must include clear statement with disadvantages
    • Why this author’s approach does not solve the problem at hand?
  – You can include a brief statement differentiating you work from the others
    • Why is your approach different?
    • How does your approach solve the problem at hand?
Your stuff

• Here you need to describe your work
  – Approach taken (methodology)
    • Simulation, analytical, experimental work
    • Tools and devices used
  – Other approaches to compare yours with
  – Network topology
    • Traffic sources
    • Link speeds
    • Buffer sizes
    • Etc
  – Performance metrics
    • Metrics used to evaluate the performance of your approach
      – To show that your work actually solves the problem and performs better than the others

• Must have enough detail for interested readers to repeat the experiments and reproduce the results
Performance comparison

• Your results and analysis
  – Results match others?
  – Logical results?

• Use figures and tables

• Do not repeat in words what anyone can read from the graphs
  – Provide insights
  – Explain WHY?
Conclusions and further research

• Conclude your paper
  – Summary of the topic, the problem, how it was solved, and the main results/conclusions

• Point out good, interesting and important areas that need to be further researched
References

• Use standard reference format
• Be CONSISTENT!!!
  – Use the SAME structure in ALL the references
Acknowledgment

• Recognize funding agencies that supported your work
  – All your papers MUST include the following in the Acknowledgment section:
    This research has been partially supported by the National Science Foundation under grants No. 1458928 and 1645025, An REU Site on Ubiquitous Sensing.

• Recognize the work of others that directly made contributions, your mentors from Uniovi, etc.
Others

- Check flow and grammar
- Fraud
  - Plagiarism, i.e. copying data, ideas or work by others
  - Fabrication, i.e. inventing or faking results
  - Falsification, i.e. manipulating results