

Grading Criteria

- Technical
 - Quality of Solution
 - Quality of Results
 - Assessment of Results
 - Conclusions
- Writing
 - Organization
 - Clarity
 - Completeness
 - Scholarly Format (proper citations of references, etc.)

Report Details

- Use the “Paper Template” provided on Blackboard
 - ▶ This is a template like that used when submitting a paper to a professional conference... so I am asking that you use this (or follow its layout if you are using some non-MSWord word processor)
- The report should be 4 – 6 pages when done in the “Paper Template” format
 - ▶ This includes figures but your simulation code should be submitted separately

Things to Put in Report

Introduction Section

- Basic overview of problem:
 - definitions, goals, challenges, etc
- Outline of rest of paper

Other Sections Should Include, as Needed:

- Clearly state the models being used and give any assumptions being made
- Describe the analysis in enough detail for someone familiar with estimation theory to understand what you did
- Do any trade-offs or “effect of” analyses needed
- Give a high-level description (with flow chart or pseudo-code) that identifies the major sub-blocks of the processing
- Give details of each sub-block in the high-level description
- Describe tests performed
- Describe data sets used
- Present results using plots, tables, etc.
- Interpret the Results
 - What do they show?
 - What do they mean?
 - Is it consistent w/ theory?
 - Why or why not?
 - Is it as expected?
 - Why or why not?

- Can you compare to other methods we studied?
- Does it make sense?
 - Why or why not?

Conclusions

- Brief summary of RESULTS
- What MAJOR CONCLUSIONS can you make:
 - e.g., what ideas, rules, relationships, limitations, insights, etc. do the results support?

References

- If you state an idea or result that comes from somewhere other than your head you have to reference its source - see textbooks & IEEE papers for examples of how to do this
- It is generally bad form to give “blanket” references for entire sections – it is better to give a reference at the point where you are making a specific use of a result

Appendix: Code Listing

- Use liberal comments that explain what you are doing and why
- Organize & identify sub-blocks in a way consistent with your flow chart given in the report body

General Tips for The Report

- Use an equation editor to make professional looking equations (MSWord has a built-in equation editor).
- Label Plots: titles, axes (give units), give brief descriptive caption
- Use diagrams to illustrate ideas, relationships, etc.
- Use page numbers
- Use figure numbers to refer to figures
- When you refer to a figure or diagram, explain what is being shown (what the axes mean, what the curves represent, what the symbols mean, etc.)
- Write for someone familiar w/ the general subject area, but not the specific topic you are exploring - **DON'T WRITE FOR THE PROFESSOR!!!**
- Don't just give a list of references at the end - embed pointers to papers & books that contain ideas/results you are using. See any IEEE paper for examples & form.
- Use a hierarchical "numbering" system for the sections & subsections - See any IEEE paper for examples & form.
- Number your equations and refer to them by number.
- Make the thing look **PROFESSIONAL!!!**
- **PROOF READ!!! MANY TIMES!!!** When you proof read, check for:
 - sensible order of ideas
 - clear explanations
 - consistent notation
 - symbols used are defined

- strong sentences - avoid statements that say things like: “this is related to that” but that don't clearly indicate the relation or why there is a relation or why we care about the relation
- be careful using "this" - be sure it is clear what "this" refers to; if in doubt, use a specific noun
- DO NOT plagiarize from any source: books, papers, web sites, reports, etc.
 - DO NOT cut and paste from sources (e.g., web sites or downloaded papers)
 - DO NOT copy "word-for-word" from sources
 - DO NOT follow the "sentence-by-sentence" structure of sources - even if you rewrite each sentence in your own words
 - You should assimilate the flow ideas into your head and then assemble them into your own flow of ideas
 - If you use an IDEA from another author you MUST reference the source of that idea
 - If you model a figure after one in a source you MUST reference the source and state that your figure is based on one in that source
- Avoid "chatty" language – use professional language in writing and save the “chatty” language for presentations
- As you do your work, save figures as MATLAB *.fig files so you can later modify them (e.g. Change labels, axis ranges, etc.). You can then later copy the *.fig file into a word processor file
- Keep a detailed record of the conditions under which each figure was made. When you put the figure into your report you should then describe these conditions/scenarios.