Design Documentation, Design Review, Feedback

Bruce A. Mork, Ph.D., P.E., Assoc. Prof.

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Preliminary Design Review

- Schedule for Nov 30th – Dec 1st timeframe
  - Coordinate time with sponsor, invite to campus
  - Coordinate time with advisor
  - Actively involve 1-2 other faculty + Professional Staff
  - Deliver design documentation for review by Nov 17th

- Who will attend
  - Sponsor
  - Advisor, MTU faculty
  - Professional Staff: John Miller, Mike Chase, Scott Ackerman, Michelle Borkowski.
  - ECE Juniors who are looking to find out what Senior Design will be like. You are setting an example...

Managing a “Working Document”

- Physical markup copy
  - One three-ring binder for use by whole team, all current report sections in one place.
  - Print out current date/time with each page number
  - Use color code for marks (add, delete, comment)
  - Use yellow highlighter for changes that have been “picked up.”
  - Keep old pages that have been updated – you may need to refer back to them for history of change. Can discard after project is completed, at which time archive should give complete record.

- Electronic markup
  - In MS Word: tools | Track Changes

Technical Writing
The Easy Way

- Draft a detailed (~3-level outline) Table of Contents first. Use it as a dynamic working outline and work plan for project/report.
- Prepare most or all of “visuals” first
  - Figures (professional quality CAD (IntelliCAD, AutoCAD)
  - Equations (use equation editor)
  - Tables or spreadsheets
  - Psuedo-code or flow charts, etc.
  - Reference List

- Type in section headings, make bulleted outline of contents of each section, insert “visuals.”
- Then write text, referring to “visuals” and references. You will find it much more efficient this way.
Review & Feedback

- See PDR & Feedback form – 4 sections
  - Organize and define project (items 1, 2)
  - Develop sound design (items 3, 4, 5)
  - Effectively document your design work (items 6, 7)
  - Effectively present your work (item 8)

First Rule(s) of Writing & Presenting

- Know who the readers and audience are.
- Know what they need to know and at what level.
- Know how much time they have to absorb it.

What the Reviewers Are Looking for

- Sponsor
  - Does it meet spec, will it work?
  - Sound design approach, reliability, -ilities...
  - Valid assumptions, no calculation errors.
  - Within budget and on time.
  - What exactly are the deliverables?

- Advisor and other Faculty
  - Sound engineering analysis
  - Meets educational goals of Senior Design experience
  - Satisfies sponsor’s expectations, Sr. Design Program

- Professional Staff
  - Is it buildable, other practical issues of design, components, and fabrication.
  - Look out for contradictory constraints, invalid assumptions, design calculation errors, etc.

Feedback

- Reviewers return evals, markup to advisor.
- Respond to comments, revise and resubmit draft report by end of Week 14