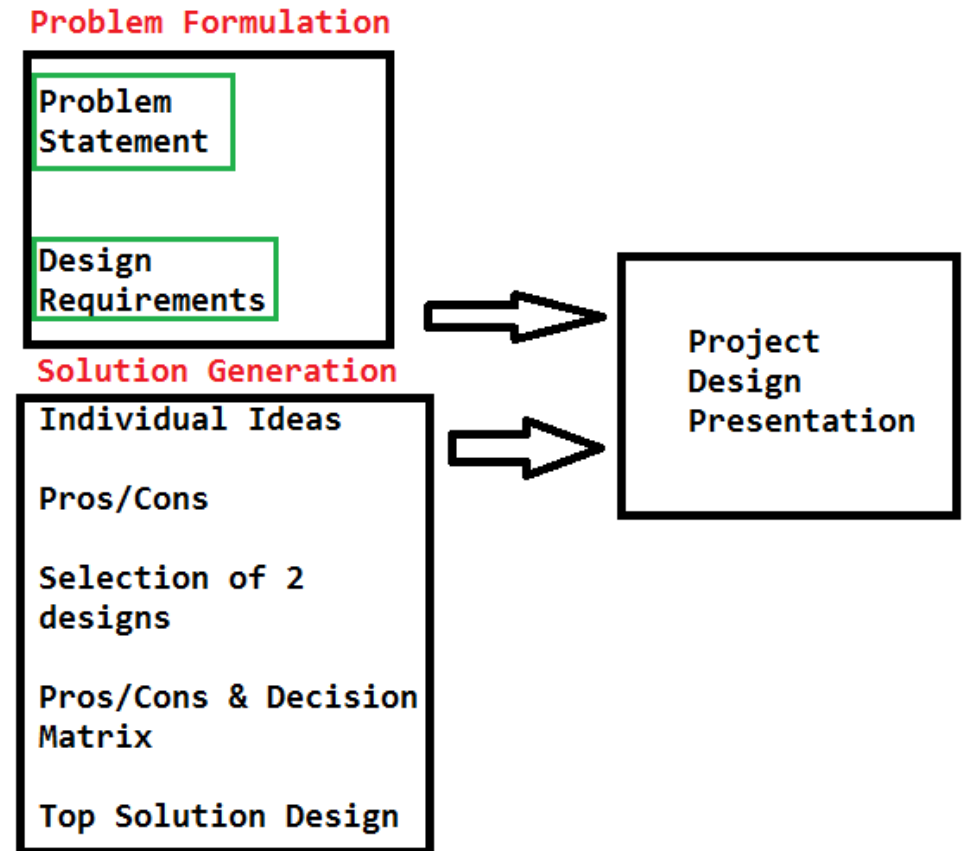
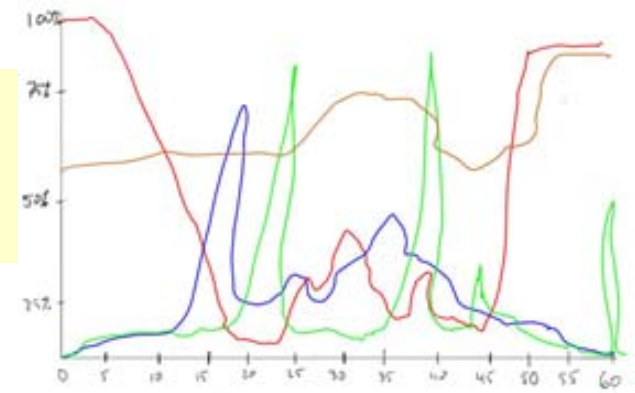


# Project Design Presentation for Mixed Audience

- What we are doing now in each team:
  - Individual Solution Design
  - Pros & Cons → Selection of 2 designs
  - Decision Matrix → Top Solution Design
  - Writing Solution Design Report
- Presentation of the Project Design
  - **Contents?**
    - First 2 phases of design process
    - (1) Problem definition
    - (2) Solution generation



# Presentation Contents

- Why (Background): Needs and demands (“dissatisfied conditions”)
- What (Problem Definition):
  - (1) Problem Definition/Statement,
  - (2) Design Requirements
    - **Product or Software Specs**
    - **Constraints: Standards, regulations, codes to be complied & Socio-cultural, environmental, constraints in solving the problem**
- How (Solution Generation):
  - (1) Individual Ideas,
  - (2) Selection of 2 Designs via Pros & Cons
  - (3) Top Design Selection Decision Matrix
  - (4) Details of the Top Design (using description and figures following **patent filing** document) .
- When (Next step):
  - Through this semester and the next semester – **implementation**
- Conclusions: summary

## Difference between Written Report and Oral Presentation - **Pace**

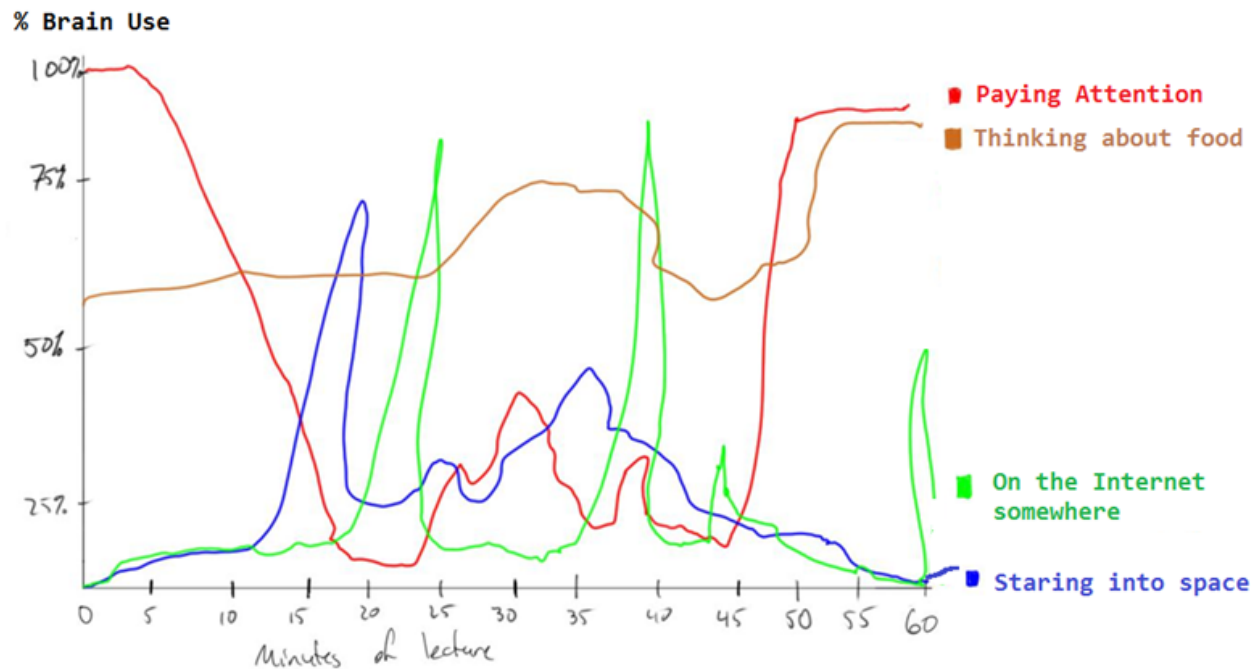
- **Written Report:**
  - Readers have freedom
  - own pace
  - control the amount of time
  - **Read parts and change order**
- **Oral Presentation:**
  - **Listeners have no freedom**
  - must keep up with the speaker
  - **no control over the time and topics**



- **Written Report:**
  - Readers can **scan, reread**, refer text, illustrations, graphics, and back.
  - **If too technical, readers can stop and search and consult dictionary or encyclopedia**
- **Oral Presentation:**
  - **Listeners depend on the speaker** making everything **clear** and **logical in sequence**
  - **Mixed audience (general public or remote discipline scientist/engineer) may not fully understand the technical terms**

## Difference between Written Report and Oral Presentation - **Length**

- **Written Report**
  - vary substantially
- **Oral Presentation**
  - carefully planned **not to exceed the pre-established time** allocated
  - Should consider audience's attention time span, which is very short
  - Engage with audience to get their attention



200

# Project Design Presentation Format

- In-Class Team Presentation
- Dates:
  - Monday (Nov 21) 1:10pm – 2:10pm: 3 teams
    - Graders: Instructor, outsider (optional), the other 4 teams
  - Monday (Nov 28) 1:010pm – 2:10pm : 3 teams
    - Graders: Instructor, outsider (optional)
  - Presentation Format:
    - 20 - 30 slides
    - 15 – 20 minute presentation
    - 5 – 10 min Q&A

## Team Presentation Content -- Outline

- “We have a project.....
- The team members are ....
- We do this project because... {**background**, need, dissatisfied conditions, etc}
- In plain English, this is the **problem** statement of the project ....
- In technical terms, this project aims to satisfy the following **design requirements**... in product (or software) specs and in constraints which include regulatory compliance, socio-cultural or environmental constraints.
- So we worked and came up with **solution ideas from each member**, and we **selected** 2 solution ideas, and then **analyzed** them and **selected** the top design,
- And this is the **final design** which has this hardware structure and software blocks (with figures), the operational principle is like this and the final product would look like this.
- The implementation of this solution starts next semester
- In conclusion, the project .... “

# Solution Design Presentation **Contents** (Suggestion)

- **Cover**
  - Title and Members and advisor and (sponsor)
- **Background**
  - Background of the project (industry, technology, customer, etc)
  - Dissatisfied conditions/situations
  - Needs in customer's point of view
- **Problem Formulation**
  - Problem Statement
  - Design Requirements – Product or software Spec
  - Constraint of Standards and Regulations to comply (specific)
  - Constraints of Society, Culture, and Environment
- **Solution Generation**
  - Individual ideas
  - 2 solution designs selected (why these 2 are selected)
  - Analysis of the 2 designs (pros & cons)
  - Top solution design by decision matrix - attributes, criteria, and weights)
- **Top Solution Design**
  - Schematics of the Top Solution Design
  - Detailed Description of the Design – Hardware and Software block diagram
  - Operation of the solution: how the final product would work
- **Future Works (through this semester and the next)**
- **Conclusions**
  - Crisp and Clear Summary of all above

# 3 dimensions of for good Presentation

- **A. Content**
  - Good material
  - Correct delivery of key messages
  - **Know your subjects- Do your homework**
- **B. Visuals**
  - Heavily Graphic, Legible font size
  - “Everything on a slide must contribute to its purpose”
  - **Just 1 subject per slide**
- **C. Delivery**
  - No canned speech
  - Conversational
  - **Engaging**

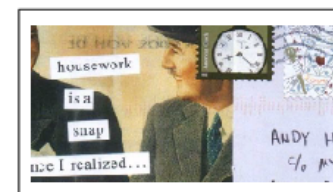
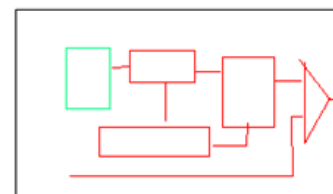
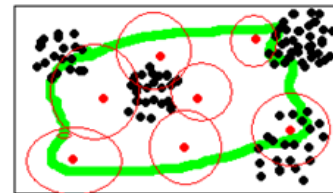
# Presentation Visuals

- One nice figure is better than a thousand words.
- Discrete, not continuous (texts): Bullet Items (no complete sentences)
- Make a slide design simple and crisp
  
- **A good way to start?** Storyboard
- **What is a storyboard?**
  - “a series of diagrams that are used to depict **the composition of a video segment (oral presentation)**”

# Storyboard - Example



# Storyboard Steps for Project Presentation



- **Cover**
  - Title and Members and advisor and (sponsor)
- **Background**
  - Background of the project (industry, technology, customer, etc)
  - Dissatisfied conditions/situations
  - Needs in customer's point of view
- **Problem Formulation**
  - Problem Statement
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- **Conclusions**
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- **Steps in storyboarding**

- Follow a **story line of presentation**
- Make out **1 diagram for each of the presentation 7 Content Categories**
- Assemble **7 diagrams into a storyboard file**
- Check if **“Project story” can be made out from the diagrams.**
- Add **more diagrams**
- Add **texts**
- Check **if the 20 - 30 diagrams of storyboard make sense**

# Team Presentation

- **2 styles**

- Dialogue Style presentation

- Group conversation style
    - No moderator

- Tag Style presentation

- (Ex) main anchor and correspondents

- **Tips**

- **Plan** ahead and do practice, a lot.

- Share equal amount of presentation time

- **Practice** Smooth Transition from a presenter to another

- Q&A

# Presentation Scoring Rubric

**10 points each**

## A. Content

- The presentation clearly described the background and problems with dissatisfied situations and benefits
- The design requirements described quantitative product (software) specification
- The design requirements considered standards/regulations, societal-cultural-environmental constraints
- The design process of initial ideation and selection of top design was well presented.
- The top design was clearly described in its features with block diagrams as well as operational principles

## B. Visuals

- The slides were enjoyable with graphics and legible texts
- The slide design was helpful in understanding the contents

## C. Delivery

- Presentation was well organized with good pace and transition
- Presentation was friendly and engaging
- Q&A session was dealt informatively

# Timeline

<b>Due Date</b>	<b>Items/Assignments</b>
(M) Oct 24	Due: Part 1 of the Solution Report (a) Individual Solution Designs (b) Selection of 2 designs using Pros & Cons
(M) Nov 7	Due: Part 2 of the Solution Report (a) Top solution design selection using decision making (b) Description of the top design with patent filing format
(M) Nov 14	Due: Solution Design Report
(M) Nov 21	Due: Ethics Essay  Solution Design Presentation I
(M) Nov 28	Solution Design Presentation 2
<b>Dec ?</b>	<b>Final Exam</b>