Something New is Coming!

Finally,

Proposal

- What is Proposal?
- Proposal Format
- Proposal Presentation Format
- Proposal Review Panel
- Proposal Approval

Project Proposal

Proposal

- A bid for a job, services, cash award, or research money.
- Or for marriage!

Design Project Proposal

- Remember that design project exists because there is problem or need.
- "a clear description of the initial ideas developed for solving the problem"
 - Background
 - Problems and Needs Refined Problem Definition and Problem Formulation
 - ROOT CAUSE
 - Current Status of Art
 - Design Requirements and Standards, Regulations, Restrictions, and Constraints
 - Initial Solution Ideas and Approaches
 - Project Management with timelines and milestone
 - Project Verification Plans and Deliverables
 - Resources and Cost
 - Qualification: knowledge content, course works, etc

Proposal Format

- Project Proposal Transmittal
 - A memo or letter for submission
- Proposal
 - Proposal Cover
 - Title
 - Team and Members
 - Space for Approval Signature

Cover

Introduction

Problem Definition

Current Status of Art

Engineering Approaches

Tasks and Deliverables

Project Management

Proposal Contents - Introduction

1. Introduction

- Objective of the project
- Goals and scopes of the project
- Background of the project
- Main problems
- Customer needs
- What the Proposal intends to do
- The organization (or order) of the Proposal

Cover

Introduction

Problem Definition

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Project Management

Proposal Content – Problem Definition

2. Problem Definition

- Refined Problem definition ->
 Root Cause
- Problem Formulation around the root cause
- Design Requirements & Performance Measures.
- Required compliance –
 Specific situation, regulation, standard, rules, codes, etc
- Technical terms and words

Cover

Introduction

Problem Definition

Current Status of Art

Engineering Approaches

Tasks and Deliverables

Project Management

Proposal Contents – Current Status of Art

• 3. Current Status of Art

- Similar Product in the market?
- Problem Already Solved?
- Available Technology?
- Weakness of the CurrentStatus of Art
- More time here saves the time

Cover

Introduction

Problem Definition

Current Status of Art

Engineering Approaches

Tasks and Deliverables

Project Management

Proposal Contents – Engineering Solution Approaches

- 4. Engineering Solution Approaches
 - Provide general or system level structures with schematics
 - Initial solution ideas
 - Possible alternative solutions
 - What knowledge and course works are to be used in the solution
 - What knowledge to be learned for the solution

Cover

Introduction

Problem Definition

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Project Management

Proposal Contents - Tasks

- 5. Tasks and Deliverables
 - Tasks to be done to (i) achieve the engineering solutions and (ii) verify the solution meets the design requirements
 - Tasks assigned to the team members
 - Deliverables
 - Final solution product
 - Demonstration System of the final solution for ECE Day presentation/Demo

Cover

Introduction

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Project Management

Proposal Contents – Project Management

6. Project Management

- Timelines and milestones
- Resources and Budget
- Safety Issues
- Engineering ethics issues

Proposal Contents - Conclusions

7. Conclusions

- Rephrase problems, needs, and benefits
- Rephrase objectives
- Summary of the engineering solution approach
- Give costs and timeline

8. References

Reference list

Procedures on Proposal

- Before Proposal Writing
 - More works on Problem Formulation,
 Current status of art, Solution generation
 - Completion and Revision of Design Requirement
- Proposal Writing ---- Start Today
- Proposal Submission
 - Proposal Submission: T 03NOV09
 - Proposal Presentation (Individual Team): TBD
- Proposal Presentation (Review Panel): TBD (F 13NOV09)??
- Final Approved (signed) Proposal Submission: W 02DEC09

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Proposal Presentation Format

Cover (1 slide)

Title and Members

Background (1 slide)

- Background of the project (industry, technology, customer, etc)
- Needs and demands in customer's point of view

Problem Formulation (2 slides)

- Refined Problem Definition in Engineering point of view (1 slide)
- Design Requirements (1 slide): emphasis on alternative solutions, knowledge contents, and constraints

Current Status of Art (1 Slide)

Prior art and available technology, weakness, etc

Solution Approaches (3 slides)

- Overall introduction of the technology field (with system level schematics) and summary of the alternative solution ideas (1 slide)
- Explanation of the first and major solution approach (why this may work)(1 slide)
- Explanation of the other solution approaches (1 slide)

Tasks and Project Management (1 slide)

- Assigned tasks for finding solutions and solution implementation
- Timelines and milestones

Verification Plan and Deliverables (1 slide)

- Evaluation plan of the solution
- Deliverables

Costs and Resources (1 slide)

- Rough budget
- Resources available and resources needed
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Conclusion (1 slide)

Crisp and clear summary of the proposal

Technical Writing Tips

- Write like a newspaper staff writer
- Outline, a long outline, and sections
 - Divide into members
 - Every topic must be covered
 - Single topic must not be covered multiple times
- Tips
 - Know your audience/reader
 - Rule 17 of "Elements of Style" Omit unnecessary words.
 - Avoid wordy phrases and sentences
 - Avoid information and conversational words and phrases
 - Why, What, When, & How
 - Correct Grammar and Spelling
 - Third Person, Active Voice, Same Tense
 - Direct and to the point
 - Paragraph Construction: Topic Sentence Support Description
- Finish Draft
 - Integrate the sections completed by members
- Spend More Time on Revising
 - Consistency
 - Terminology
 - Flow

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Check Format







