Multi-Temperature Diode Characterizer

**Following template for project proposal is to be followed. This document can be of 4 to 6 pages.**

**Abstract (**one para giving a gist of the project)

**Body of the proposal**

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| **Project Description** | | | | | | |
| Background and Motivation |  | |  | | |  |
| Project Goal |  | |  | | |  |
| Project specifications |  | |  | | |  |
|  |  | |  | | |  |
| **Technical Design Description** | | | | | | |
| Possible Solutions and Design Alternatives |  | |  | | |  |
| System-level overview | |  | | |  | |
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|  | | | |  | | |
| **Work Plan** | | | | | | |
| Work distribution | |  | | |  | |
| Gantt chart | |  | | |  | |
| **Project Implementation** | |  | | |  | |
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**Abstract** :

Five to ten sentences providing a non-technical description; use technical words only to describe important specifications. Describe the “big picture” of the project.

1. **Project description:**

This section should have following subsections:

1.1 - **Background and motivation** related to your work, what others have done with current limitations, references, literature survey, or what is the pain in the current scenario.

1.2 - **Project goal** summarize what your design project is to achieve. It can be general and non-technical but should describe “the big picture” elaborately. Basically, you briefly explain what the solution is and what is unique about your solution.

1.3 - **Specifications**

1. Customer specification (avoid jargon)
2. Technical specification (derived from the customer specs)
3. **Technical Design**

This section has following subsections

2.1 Possible Solutions and Design Alternatives

In this section describe the possible solutions and evaluate them in terms their possible performance, availability of the resources, and other limitations. State the solution you would like to adopt with justification.

2.2 System-level overview

Include a block diagram with functional description. A brief overview of what your proposed device/solution is and how it will work. Include figures to illustrate the concept of your final product showing what it will look like, showing how it will work, and showing what it will do.

2.3 Performance validation

Describe how you would validate your final design and prove that it meets the specifications you promised. You would demonstrate your successful project at the final Design Lab Demo.

1. **Project plan**

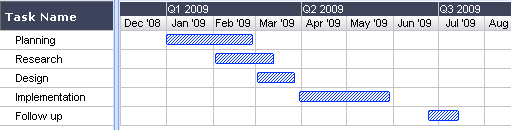
This section is to provide

A listing of all tasks, planning, involving all the tasks and sub-tasks. A task can be defined as anything that takes your time.

Examples of tasks possible are (but not limited to): Embedded system design, sensor testing, analog module design and testing, mechanical design, PCB design, power consumption estimation, components procurement, documentation, etc.

Time line for execution including team members associated with each task you have planned – A Gantt chart can be used for the purpose.

A sample Gantt chart is shown below. You will be provided with the schedule to demonstrate milestone-1 to milestone-4. Breakdown the entire work into the tasks and subtasks (WBS- Work Breakdown structure) to define these milestones. You will define your own tasks. For more information refer http://www.gantt.com/.

 A simple Gantt chart

Distribute the task/sub-task among your group members and mention these week-wise tasks for each member.

1. **Project Implementation:**

At this stage, you need to submit a **BOM (Bill of Materials).** Apart from the components decide your testing strategy - how to test, needed tools, precautions and feasibility Assessment (resources, risks). What is the deliverable of the work and demo possible in reality?

1. **Deliverables**

Spell out the project deliverables - what you would demonstrate during the evaluations

(It is expected that for the first evaluation (1st week of Feb) roughly 30% of work is ready. You will have to demonstrate the subsystems that are ready. For the second evaluation (2nd week of March) 60 to 80% of your work should be over and you should be working on your final PCB, box etc. We expect a draft version of your final report submitted by the 1st week of April. For the final evaluation (April 10-14) you need to give a brief presentation (20 min) and a demo of your project.)