

Cool and Catchy Title with Key Words that Represent National Need

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Short Summary— GOGO

- **Tell about key local/national problem in one sentence and why a solution is required**
- **State key contributions for (society, government, industry), precisely and in the best possible way that importance is highlighted.**
- **Provide short implementation details and key deliverable, especially improvements against conventional systems.**
- **Highlight if you are already have contributions (Patent, Prototype, Start-up).**

Keywords— KW1, KW2, ... KWn.

I. INTRODUCTION AND MOTIVATION

Introduction should be built in form of a connected chain of arguments. As a rule of thumb, follow the flow of answering the following key questions. For each question, provide solid references (top venues) and (in the best case) your own analysis results and experimental evidence, wherever possible.

Q1: What is the key problem that you are targeting in this proposal and why is this an important problem? Explain the problem with solid numbers and references and (if possible) with real evidence.

Q2: What are the major state-of-the-art works that target this problem. State their major pros and cons. Here state the related works in categorized form, in a succinct way, such that the discussion does not get long. Detailed related work will come in a separate section. In case of a 6-page proposal, 1 paragraph of related work (existing solutions, Competitors etc) can be directly integrated in this introduction section, as space should be given to own work mostly.

Q3: What are the major limitations of the conventional system, tell in discussion as well highlighted by your own analysis (reference and numbers). Put some short form here, and detailed in the motivational case study. If this can be done in 1-2 paragraphs, then the motivational study can be put inline here. The key goal should be coming quickly coming to major national challenges targeted in this proposal, and the contributions that address these challenges (beneficiaries).

Q4: What are your planning, and how can you solve the above challenges? State clearly, and highlight keywords. Justify why your solution will help the society/government/industry!

Q5: What are your major deliverables, and improvements conventional systems? Is your proposed setup convincingly correct, reproducible and has ability to commercialize? Can you ensure scalable production at commercial level, etc.? => Most of these parts should be justified in the detailed experimental setup and results sections, but here 1-2 sentences are important to convince or IMPRESS the reviewer that your solution will give a thorough impact (society, industry, economy, health) and reviewer should believe your design and development and business planning.

Some example sentences and flow are given below:

Therefore, improving XYZ is one of the major research challenges for realizing XYZ.

In this proposal, we aim at leveraging / developing XYZ to address the above XYZ issue.

Our motivational case study in the following section illustrates XYZ, which can be leveraged for XYZ (or helps in drawing observations for XYZ). Details on the development methodology can be found in Section XYZ.

A. Case Study: XYZ

Discuss TODO here.

B. National Challenges Targeted in this proposal

Discuss TODO here.

C. Our Previous Contributions (if any) and Design and Development Strategy

To address the above National Challenge, in this proposal, we make the following key contributions.

1) Main Contribution 1 (Section Number): Tell the core idea in 1-2 sentences.

2) Main Contribution 2 (Section Number): Tell the Beneficiaries in 1-2 sentences.

3) Main Contribution 3 (Section Number): Tell the core outcome (impact, economy, health, industry etc) in 1-2 sentences.

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See the following (fan industry) case study as an example.

http://ucerd.com/my_uploads/workshops/

[Effective Grant Proposal/](#)

[Pakistan Fan Industry and Problems.pdf](#)

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II. BACKGROUND AND RELATED WORK

Related Area-1 Heading: Give concise competitor's work/product/process with all the key features.

Related Area-2 Heading: Give concise related work existing products.

Area-3: Give your approach, features and benefits.

III. DESIGN AND DEVELOPMENT SECTION

A. Overview

Provide the overview of the whole system, architectures (Data, Software and Hardware) and required analytics, etc.

Put a diagram illustrating all important components of your system, highlighting the novel components.

B. Detailed Content – Sub-Section 1

Provide the technical details of your contributions here, make sure the details are correct, precise, and reproducible, yet they have to be easily understandable.

Provide technical details, then a simple example to explain that concept. Support each part of the claim with appropriate results/analysis here, right at the point where you discuss them to support your scientific claims. Make appropriate architecture diagrams, flow charts, pseudo-codes, etc. to beef-up the technical content and make things easily understandable. Remember, a figure is better than 1000 words.

C. Detailed Content – Sub-Section 2

Like above, do it for all of your novel contributions in different sub-sections.

IV. BUSINESS PLAN

- 1) Problem Statement**
- 2) Market Analysis**
 - 2.1 Anticipated Customer
 - 2.2 Competitive Analysis
- 3) Design and Development Planning**
- 4) Business Model**
- 5) Financial Planning**
 - Budget Analysis (for Funding Proposal)
 - Cost and Revenue Analysis (for Business Models)
- 6) Marketing**
- 7) Commercialization Strategy:**
- 8) Agreements (Terms and Conditions)**

Product Being Developed	Pakistan Custom Tarrif (PCT) No for product	World Market Size	Pakistan Market Size	Pakistan Import/Export Volume	No of industries engaged in this product/idea	Product Price	Business-Business or Business to Consumer
Supercomputing Platform for Data Sciences	8471.4120	81.43 Billion US\$ 11.1% CAGR	76.3 Million US \$	1.9 Billion US \$	2	2.5 PKR Million	B2B and B2C