**PROFORMA FOR SUBMISSION OF JOINT SCIENTIFIC EXCHANGE PROGRAM (JSEP) BETWEEN**

**PSF (PAKISTAN) AND NSFC (China)**

|  |  |  |  |
| --- | --- | --- | --- |
| For official use only | | | |
| Reference title | Date received | Project code (NSFC) | Project code (PSF) |

|  |  |
| --- | --- |
| National Natural National Natural Science Foundation China (NSFC)  Beijing, China | The Pakistan Science Foundation (PSF)  Islamabad, Pakistan |

**JOINT SCIENTIFIC EXCHANGE PROGRAM PROPOSAL**

* Please provide the required information briefly. Condensed statements in the boxes available are preferred. However, additional sheets may be used if necessary.
* Please attach the curricula vitae of all the participating scientists.
* Chinese scientists should submit proposals to NSFC and Pakistani scientists should submit proposals to PSF.

**PART 1**

|  |  |
| --- | --- |
| **PROJECT TITLE** | |
| **KEY AREA** | |
|  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Chinese Side | | |  | Pakistani Side | | |
| PI Name, Designation, Department and organization | | | PI Name, Designation, Department and organization | | |
| Date | Signature of PI | | Date | Signature of PI | |
| Address | | | Address | | |
| Telephone | Fax | E-mail | Telephone | Fax | E-mail |
| List of participants | | | List of Participants | | |
| Head of Institution | | | Head of Institution | | |
| Date | Signature and Stamp | | Date | Signature and Stamp | |

**PART 2 – PROJECT INFORMATION**

1. **General Information**- The project we are proposing is Real Estate Blockchain application. Blockchain is a distributed database that is shared among the nodes of the computer networks. Blockchain is a kind of database which is 100% secure and permanent and the data of this doesn’t saved in any central location. The reason for using Blockchain in this application because this is one of the most trending topic have a great future scope in it. It reduce compliance cost and speed up data transfer processing. Blockchain technology has impacted the real estate industry in a variety of ways, including offering a new means for buyers and sellers to connect with each other. Blockchain use concept of smart contract which reduces the need for intermediaries in blockchain’s well designed peer to peer network, eliminating multiple transaction costs. Blockchain can be used in multiple programming languages like Golang, Python, and Solidity etc. The popularity of Blockchain and distributed ledger technologies for business applications has increased substantially over the past years. Partly, this is due to a hype, fueled by the rising and dropping value of Bitcoin. But apart from the Bitcoin hype, how can we understand the attractiveness of distributed ledger technologies for its use in business applications? A recent claim is that Blockchain applications may enhance trust in inter-organizational relationships and business transactions.
2. **Introduction**- The subject and basic idea of the project is to understand the market and get profitable business regarding real estate buying and selling for normal customers or real estate agents. The idea is to develop MVP (Most viable product) which can be accessed from Android, iOS and from desktop. The fundamentals are to have a datasets for multiple prime locations for real estate properties prices. Our application will provide the prices predictions with respect to multiple parameters which includes country’s economy, population, location facilities, climate change and so on. The profitable business concept will be launched, which can be used to buy certain real estate properties in reasonable prices and can be sell with higher profit margin.
3. **Scope**- Profitable Business for real estate agents and customers, economy stability, tokenization of real estate assets, process efficiency for underlying industry operations, access of global assets distribution, and access to broader investor pools due to ownership fractionalization and access to secondary market opportunities data accessibility to increase transparency and informed better investment decision and portfolio management.
4. **Method**- Considering parameters and storing in Blockchain database as datasets to be used as the application programming interface (API) in the application. The development of MVP application will be started from prototype desktop application, then web application and PWA (Progressive Web Apps) for android or iOS devices.
5. **Research Facilities**- Our proposed project, we’ll require complete decentralized internet, Blockchain integration, high specification pcs to increase efficiency.
6. **Expected Results and Benefits**- Expected results will be an MVP Blockchain Application which will help Business for real estate agents and customers, economy stability, tokenization of real estate assets, process efficiency for underlying industry operations, access of global assets distribution, and access to broader investor pools due to ownership fractionalization and access to secondary market opportunities data accessibility to increase transparency and informed better investment decision and portfolio management.

**PART 3 – EXECUTION MATTERS**

3.1 **Time Table-** Fill the following table indicating each major step in project execution.

|  |  |  |
| --- | --- | --- |
| Time schedule | Responsibilities of the Chinese Team | Responsibilities of the Pakistani Team |
| Year 20.. |  |  |
| Year 20.. |  |  |

3.2 **Travel Details-** Fill the following table justifying each visit proposed.

**Visits to China**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year 20.. | | | Year 20.. | | |
| Trip No | No. of visitors | Duration of visit per visitor (in days) | Trip No. | No. of visitors | Duration of visit per visitor (in days) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Visits to Pakistan**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year 20.. | | | Year 20.. | | |
| Trip No | No. of visitors | Duration of visit per visitor (in days) | Trip No. | No. of visitors | Duration of visit per visitor (in days) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**PART 4 – BUDGETARY INFORMATION –** Give detailed justification for each item requested. Specify the support obtained for the work proposed from other institutions if any.

**Financial Support (in Rupees) Requested**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year 1 | NSFC | | PSF | |
| Requested | Approved | Requested | Approved |
| Year 2022 |  |  |  |  |
| Year 2023 |  |  |  |  |
| Total |  |  |  |  |