Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College of Engineering, Satara

Department: Computer Science & Engineering

Academic Year: 2023-24 Semester-VII

Project Proposal

1. **Title of the Project Proposal-:** Online Blockchain based Certificate Generation and Validation.
2. **Names of Project group members-:**
    1) Omraj Manoj Jadhav
    2) Akhilesh Vilas Dange
    3) Prasenjit Indrajit Bhosale
    4) Aniket Sanjay Chavan
    5) Yashashree Sandip Deshmukh
    6) Akshata Ashok Dhumal
3. **Name of the Guide / Co-Guide-: Prof. Shabina Sayyad-Modi**
4. **Objective of the Project-:**
    1) Enhance the security and trustworthiness of digital certificates.
    2) Streamline and automate the certificate issuance process.
    3) Provide a standardized and reliable method for certificate verification.
    4) Ensure data privacy and compliance with regulations.
    5) Promote global recognition and acceptance of digital certificates.
5. **Methodology-:**

Research: First, we'll study and understand blockchain technology and smart contracts.
System Design: We'll make a detailed plan for how our system will work, including how certificates are stored and checked.
Development: We'll create the actual system using software tools like Node.js, Django, and Solidity.
Testing: We'll check and test everything to make sure it works correctly and is safe.
Deployment: Once we're sure it works well, we'll make it available for people to use.
Training: We'll teach users and organizations how to use the system effectively.
Feedback and Improvement: We'll gather feedback from users and organizations and use it to make the system even better.

6. Approximate Cost of the Project-:

Type of Budget	Particulars	Approximate Cost in Rs.
Recurring Budget	For Example: Cloud Space for storing data	
Non-Recurring Budget	For Example: Raspberry Pi, Webcams ,UltrasonicSensors	
	Participation in Conference / paper publication in UGC approved Journal	
	Total Cost in Rs.	

7. What is the scope of the project? What end results are expected?

The project's main goal is to make certificates safer and easier to use. Right now, certificates can sometimes be faked or lost. We want to use a special technology called blockchain to fix this. We'll make sure that once a certificate is issued, it can't be changed or faked. Schools and organizations will be able to give out certificates more easily, and everyone can quickly check if a certificate is real or not. This will save time and money for everyone. We'll also make sure your private information is kept safe. In the end, we want everyone to know that their certificates are real and valuable, and we'll teach people how to use the new system.

The expected results include certificates that are secure and can't be faked, faster and easier certificate issuance, and a simple way to check if certificates are real. This will save time and money for schools and organizations, and keep your personal information safe. We also want to make sure that people know how to use the new system and trust that their certificates are real and valuable.

8. Why do you feel the necessity to undertake this work?

This project is very important because it fixes big problems in education. Regular paper certificates can be faked, which makes people worried. Also, there are new rules to keep your education data private, and this project follows those rules. It makes getting certificates faster and cheaper. It also helps certificates be known all over the world. Using less paper is good for nature, and this project is very modern in education. It helps schools stand out and attracts students and employers who want real certificates. It's also good for graduates and students, making their education better. Most importantly, it keeps education records safe and honest in the digital age.

9. Who will be benefited by the proposed work and what is the scope for its replication/ scale up?

- **Students and Certificate Holders**: Students can trust that their digital certificates are secure and easily share them, boosting their value in education and careers.
- **Educational Institutions:** Schools can simplify certificate issuance, save on paperwork, and make their certificates more trustworthy, from K-12 to universities.
- **Employers and Organizations:** Businesses across industries can quickly confirm the authenticity of applicants' certificates, preventing hiring mistakes.
- **Governments and Regulatory Bodies:** Governments can benefit from secure, standardized certificate validation and may adopt the system nationally.
- **Technology Developers:** Developers can apply the blockchain-based certification framework in various contexts, like supply chain management and identity verification.

10. How this project is beneficial to the college?

- **Credibility:** Blockchain-based certificates enhance the credibility of the college by making certificates tamper-proof and trustworthy.
- **Innovation:** Embracing blockchain technology showcases the college's commitment to modernization and attracts forward-thinking stakeholders.
- **Student Experience:** Secure digital certificates allow students to easily share their qualifications, improving the college's reputation.
- **Alumni Verification:** Colleges provide a secure way for alumni to verify their qualifications, valuable for institutions with extensive alumni networks.
- **Cost Savings:** Reduced administrative costs and paper usage lead to financial savings.
- **Sustainability:** Digital certificates support sustainability by reducing paper use.

11. Total Amount of funding for the proposed project work-:

In Words-:

12. Are you going to give assurance that this project will be completed within a deadline by following all terms and conditions of project completion.

Yes

a) Certified that we have not submitted/ submitted the same/similar proposal for funding support from any other source.
b) Certified that PC/Laptop/Software or basic laboratory equipment required for the proposed project are available in our department.
c) We are fully aware that we are eligible for project funding only if our project is completed within deadline.
d) We are fully aware that the project will be handed over to the college after its implementation without any cost.

Certified that funding will be used for the purpose as stated and as approved in the proposal. Information as above is true, if found false at any point in time, the proposal will be rejected by Research Committee of KBP College of Engineering, Satara and disciplinary action as per the policies of KBP College of Engineering, Satara will be acceptable which willinclude returning the financial grant with necessary additional interest.

Dr. Shabina Sayyad-Modi
Signature of Guide

Prof. Ganesh Dangat
Signature of the Head of the Department