

Project Proposal for SSIP Funding

1. Name of Department: Information Technology
2. Title of Project: **Graphical Password Authentication System**
3. Project Type (Please select only one category): Modeling and Simulation
 - a. Physical Prototype
 - b. Website or Application
 - c. Website or Application with Physical Prototype
 - d. Website or Application with Real Data
 - e. Modelling and Simulation
 - f. Social Innovation
4. Name of Guiding Faculty Member: Prof. Naimisha S. Trivedi
5. Email of Guiding Faculty Member: naimisha.trivedi@vgecg.ac.in
6. Mobile Number of Guiding Faculty Member: 98244 88334
7. Name of Team Leader: Vishvaa Chhatrara
8. Email of Team Leader: chhatraravishvaa@gmail.com
9. Mobile Number of Team Leader: 9662594536
10. Enrollment Number of Team Leader: 180170116005
11. Names of Team Members (Separated by , ,):
Rutanshiben Khambhatiya, Priyaben Naika, Harshil Ramanuj
12. Email of Team Members (Separated by , ,): khambhatiyarutanshi248@gmail.com,
priyanaika0612@gmail.com, dushyantramanuj91@gmail.com

13. Mobile Number of Team Members (Separated by ,):

98792 93056, 81286 51501, 94298 05010

14. Enrollment Numbers of the team members (Separated by ,):

180170116017, 180170116022, 190173116018

15. Current National Status of the Idea (100 words):

In this pandemic situation, so many industries are moving towards online systems. There are so many banking systems that are serving their users through online application. Most of them are still using text based passwords which are very easy to crack and not secure. Graphical passwords are implemented in the form of captcha and similar image detection type login systems. These are also not resistant to shoulder surfing type problems. More secure systems such as biometrics are also implemented but they are costly and are used by very few industries.

16. Current International Status of the Idea (100 words):

So many research has been made through out the world on this idea and some of them are very effective. But the drawback of these systems i.e. time consumption is taking organizations in not use of it. There are systems like PassBYOP which proposed the industries to use these graphical passwords in a unique form. Still industry needs research in this field to make it more user friendly and secure.

17. Novelty Being Proposed (100 words):

Through this project, we want to propose the use of Graphical password and biometrics together. This will bring Double security. At the time user will insert the graphical password and system will verify it, the system will also capture user's iris image and will verify it using biometrics system. This will overcome the hipe of Shoulder surfing.

18. Expected Outcome (50 words and in Bulleted List):<https://goo.gl/oWKe8w>

- It will provide High level Security and can be applied in all Government organizations, Banking, ATMs and Private Organizations.
- Images are generally easier to be remembered than text and in Graphical password; user can set images as their password.
- Our system provides better resistance towards cyber attacks and shoulder surfing.

19. Financial Breakup of the assistance requested:

Sr. No.	Description of Components / Items	Cost (INR) per item	Number of items	Total Cost (INR)
1	Optical Sensor	10,000	1	10,000
2				
3				
4				
Total				10,000

For future extension Google Play Store fee, payment gateway integration fee, patent registration fee may be required.

20. Detailed timeline of the activities to be carried out:

- Phase 1- Requirement Gathering(1 month)
- Phase 2- Designing(2 months)
- Phase 3- Implementation(2 months)
- Phase 4- Testing(1 month)
- Phase 5- Product Release

21. Details of expertise available with the team in executing the project:

Prof. Naimisha S. Trivedi

Assistant Professor

IT Department,

Vishwakarma Government Engineering College,

Chandkheda, Ahmedabad.

22. List of expected technical contributions from each team members:

- Harshil Ramanuj – Information Gathering, Implementation
- Khambhatiya Rutanshi – Designing, Implementation
- Vishvaa Chhatrara – Testing, Implementation
- Priya Naika – Testing, Implementation

23. List of major technologies involved in project (50 words):

- Image processing
- Python
- Django
- Biometrics
- Machine Learning
- Data Science
- Cyber Security

24. Detailed analysis of social need or industrial need of the project (100 words):

Society today is moving towards automation and almost all our information is going to be digital. So the security is must. Almost all the applications in the world uses text based passwords which are very less secure. So, society needs strong authentication system and also it should be cost effective. Graphical password fulfills these needs of society.

25. Summary of Innovation being proposed:

Graphical password can be used as an alternative to text based (alphanumeric) password in which users click on images to set their passwords. Images are generally easier to be remembered than text and in Graphical password; user can set images as their password. To overcome the drawbacks of current system/shoulder surfing, we have integrated our system with Optical Sensor.

26. Ideation Canvas, AEIOU canvass in soft form prepared: (yes/no)

Yes.

Team Leader Name : (Vishvaa Chhatrara)
Team Member 2 Name: (Khambhatiya Rutanshi)
Team Member 3 Name: (Priya Naika)
Team Member 4 Name: (Harshil Ramanuj)
Team Member 5 Name:
Team Member 6 Name:

Faculty Guide Name: (Prof. Naimisha S. Trivedi)

Head of Department Name: (Dr. Vibha Patel)

Evaluation Summary:

Project Title:

- Internal Evaluation:
 - Applications will be screened on basis of genuineness, social impact, potential of conversion to product, feasible solution with respect to resources (development and deployment).
 - Incubatees will be screened through various rounds of scrutiny of proposal. Those rounds will be conducted through interview, discussion, demonstrations.
 - Furthermore applications will be judged based on value addition to the innovation, unique selling points (USP), core competency, patent possibilities, domain knowledge, literature study, team strength, integrity and dedication.
- External Expert Panel: Proposals recommended by Internal Evaluation committee based on above mentioned criteria shall be evaluated externally by expert panel members. The Selection Criteria (100 marks) includes evaluation of team, product, market, and Unique Selling Point, the incubatees shall be evaluated as follows,

Student Leader

Faculty Coordinator

Head of Department

Sr. No.	Criteria	Max. Mark	Expert 1	Expert 2	HoD
1	Clarity of Business Idea / Vision	20 marks			
2	Team Expertise in Market	10 marks			
3	Product / Service is Achievable and solves the need	15 marks			
4	Existing Competition	15 marks			
5	Uniqueness of Idea	25 marks			
6.	Stage of Development (Ideation/Prototype/Market Ready/Early Revenue)	15 marks			
	Total	100 marks			

The proposal obtaining minimum 50 marks shall be recommended for SSIP support.

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