



**GUJARAT TECHNOLOGICAL UNIVERSITY  
(GTU)  
INNOVATION COUNCIL (GIC)  
Patent Search & Analysis Report  
(PSAR)**



**Date of Submission : 10/10/2019**

Dear **Shah Dhruvi Manish**,

**Studied Patent Number for generation of PSAR** : **19BE7\_160420107050\_5**

**PART 1: PATENT SEARCH DATABASE USED**

- |  |   |   |
|--|---|---|
| <b>1. Patent Search Database used</b>    | : | Google Patents  |
| <b>Web link of database</b>              | : | <a href="https://patents.google.com/">https://patents.google.com/</a> |
| <b>2. Keywords Used for Search</b>       | : | android application,door lock,door authentication                     |
| <b>3. Search String Used</b>             | : | Android based door lock system  |
| <b>4. Number of Results/Hits getting</b> | : | 3870  |

**PART 2: BASIC DATA OF PATENTED INVENTION /BIBLIOGRAPHIC DATA**

- |  |   |   |
|--|---|---|
| <b>5. Category/ Field of Invention</b>               | : |   |
| <b>6. Invention is Related to/Class of Invention</b> | : | Android Application   |
| <b>6 (a) : IPC class of the studied patent</b>       | : | G05B 19/00  |
| <b>7. Title of Invention</b>                         | : | WIRELESS DOOR LOCKING SYSTEM  |
| <b>8. Patent No.</b>                                 | : | US 9,353,551 B2   |
| <b>9. Application Number</b>                         | : | 14/219,989  |
| <b>9 (a) : Web link of the studied patent</b>        | : | <a href="https://patentimages.storage.googleapis.com/83/b5/8c/6b85f5b9a43521/US9353551.pdf">https://patentimages.storage.googleapis.com/83/b5/8c/6b85f5b9a43521/US9353551.pdf</a> |
| <b>10. Date of Filing/Application (DD/MM/YYYY)</b>   | : | 03/19/2015  |
| <b>11. Priority Date (DD/MM/YYYY)</b>                | : |   |
| <b>12. Publication/Journal Number</b>                | : |   |
| <b>13. Publication Date (DD/MM/YYYY)</b>             | : |   |
| <b>14. First Filled Country : Albania</b>            | : |   |

**15. Also Published as**

Sr.No	Country Where Filled	Application No./Patent No.
1		

**16. Inventor/s Details.**

Sr.No	Name of Inventor	Address/City/Country of Inventor
1	Meghan Martinez	Chandler
2	Andrew Martinez	AZ (US);
3	Eugene Overline	Chandler
4	Ryan Allen	AZ (US);
5	David Spykerman	Gilbert

**17. Applicant/Assignee Details.**

Sr.No	Name of Applicant/Assignee	Address/City/Country of Applicant
1	Meghan Martinez	Chandler, AZ (US);

**18. Applicant for Patent is** : Individual

**PART 3: TECHNICAL PART OF PATENTED INVENTION****19. Limitation of Prior Technology / Art**

If the device doesn't support the application then the system cannot be used on that particular device. Hence, latest android device is required.

**20. Specific Problem Solved / Objective of Invention**

The present disclosure relates to a wireless door locking system that provides for the use of a mobile computing device. Such as, but not limited to a Smartphone, to communicate with a door lock to disengage the locking device for entry into a structure

**21. Brief about Invention**

This disclosure relates generally to a door locking system and more particularly to a wireless door locking system for use by others.

**22. Key learning Points**

Android Application Development

**23. Summary of Invention**

A wireless door locking system is provided. The system includes a door lock having a locking device, a sensor and a micro controller. The system also includes a mobile computing device having a display and a mobile application, wherein the mobile computing device is placed proximate to the door lock. The system includes a server in communication with the mobile computing device. The mobile application may generate a code Such as a light pattern in response to communication with the server and transmits the light pattern from the display. The micro controller of the door lock disengages the locking device in response to the sensor receiving the generated code communicated from the mobile computing device and determining that the generated code includes correct data to disengage the locking device of the door lock.

**24. Number of Claims** : 19

**25. Patent Status** : Published Application

**26. How much this invention is related with your IDP/UDP?**

< 70 %

**27. Do you have any idea to do anything around the said invention to improve it? (Give short note in not more than 500 words)**

NO SUGGESTIONS