



B.Tech Project Evaluation-2, VIIIth Sem

PORTABLE VULNERABILITY ASSESSMENT SYSTEM FOR WIRELESS AS DATA TRANSITION ANOMALY IN IOT

Presented by :-

**UDIT PRABHAKAR, 2018007643
ABHISHEK SHARMA, 2019643445
ASTHA AGRAWAL, 2018014082
SHUBHAM JHA, 2018011469**

Under the Supervision of:-

Mr. AVINASH KUMAR
Assistant Professor, Department of
Computer Science and Engineering,
Sharda University, Gr. Noida
M.Sc, Cyber Security, United Kingdom.
Certified Ethical Hacker.

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
SCHOOL OF ENGINEERING AND TECHNOLOGY**

02, April, 2022

Approval from guide for the evaluation

The screenshot shows a Gmail interface with a browser window at the top. The browser tabs include 'TECH MAHINDRA LIMITED', 'The Python Bible™ | Everyt...', 'Inbox (13,538) - uditprabh...', 'Need Approval for last eval...', 'WhatsApp', and 'Ppt format_Eval-2_VIIIth s...'. The address bar shows the URL 'https://mail.google.com/mail/u/1/#inbox/FMfcgzGmvfbhhCBwrbrnTfDCxQNISH'. The Gmail interface has a left sidebar with 'Compose', 'Inbox (3,260)', 'Starred', 'Snoozed', 'Sent', 'Drafts', and 'More'. The main content area displays an email from Shubham Kumar to Avinash Kumar, dated Mar 29, 2022, 7:03 PM (3 days ago). The email subject is 'Need Approval for last evaluation (Final year project)'. The body of the email states: 'Respected sir, As per received the notification by our department, we need your approval for the final evaluation of final year project which will be on 2nd April 2022. It is kindly requested that you give us the approval of the last evaluation, we will always be grateful to you. Team members details are as follows. Udit Prabhakar (2018007643) Abhishek Sharma (2019643445) Shubham Kumar Jha (2018011469) Astha Agarwal (2018014082) Thank and regards Shubham Kumar Jha'. Below the email, there is a response from Avinash Kumar (SET Assistant Professor) dated Mar 30, 2022, 10:29 AM (2 days ago). The response states: 'Approved. Mr. Avinash Kumar Assistant Professor, Department of Computer Science and Engineering, School of Engineering and Technology (SET), Sharda University, India. M.Sc, Cyber Security, United Kingdom. Certified Ethical Hacker.'

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LABELS +

21 of 7,500 < >

Need Approval for last evaluation (Final year project) External Inbox x

Shubham Kumar
to avinash.kumar5, asthaagarwal08092000@gmail.com, 2019643445.abhishek, me ▾

Respected sir,
As per received the notification by our department, we need your approval for the final evaluation of final year project which will be on 2nd April 2022.

It is kindly requested that you give us the approval of the last evaluation, we will always be grateful to you.

Team members details are as follows.

Udit Prabhakar (2018007643)
Abhishek Sharma (2019643445)
Shubham Kumar Jha (2018011469)
Astha Agarwal (2018014082)

Thank and regards
Shubham Kumar Jha

Avinash Kumar (SET Assistant Professor)
to Shubham, asthaagarwal08092000@gmail.com, 2019643445.abhishek, me ▾

Approved.

Mr. Avinash Kumar
Assistant Professor, Department of Computer Science and Engineering,
School of Engineering and Technology (SET), Sharda University, India.

M.Sc, Cyber Security, United Kingdom.
Certified Ethical Hacker.

Workload distribution of the team

Task	Udit	Abhishek	Astha	Shubham
Literature Survey	Y	Y	Y	Y
Problem Formulation	Y	Y	Y	Y
System Modelling/Costing	Y	Y	Y	Y
Scripts	Y	Y		
Simulation/Hardware	Y	Y	Y	Y
Patent Writing	Y	Y		
Report Writing and Other Paperwork	Y	Y	Y	Y

Why it is needed to hack drones :

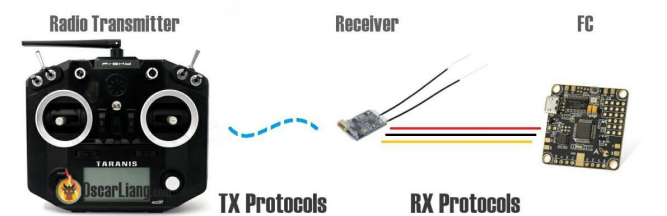
To monitors, stop and capture unauthorized drones which is flying in surveillance area which may be a potential threat to organization or government agencies that may carry explosives or might have intentions to steal sensitive information.



Subdomain of our main problem statement :

Drone uses Two Transmission medium for communication

- i) Wi-Fi Signals
- ii) Radio Frequency



WiFi operated drones -

Solution - Wifi adapter with monitor mode is the best solution for deauthenticating a drone wifi signals from the operator

Supported hardware :- Tplink 722n, Alfa wifi cards



Radio Frequency

Solution - RTL SDR is the solution for drones which works on radio frequencies for receiving live radio signals

Supported Hardware:- RTL SDR



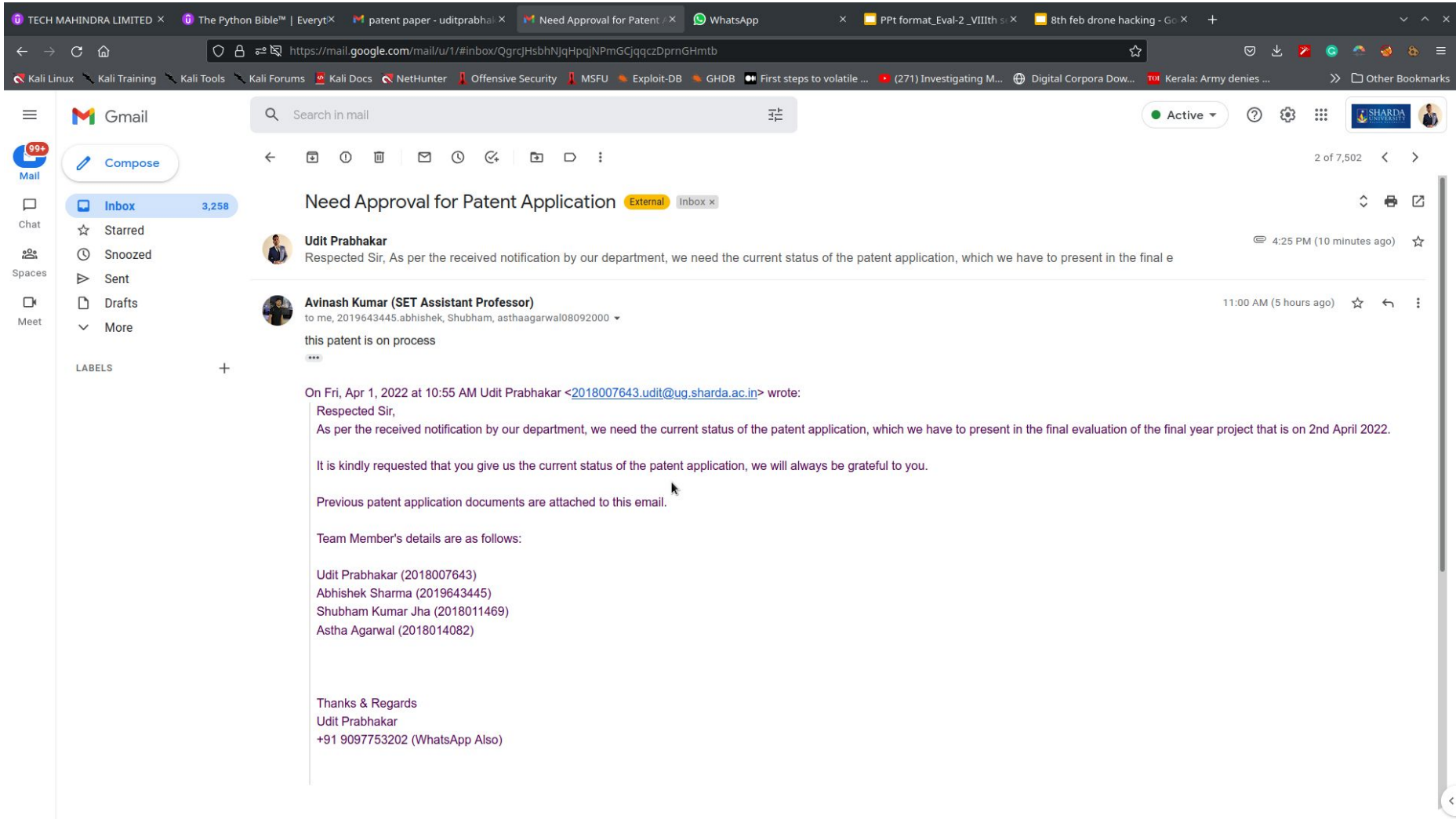
Improvement/Work done from the last evaluation

- Manually monitors and deauthenticated the target and solved wifi drones problem
- Radio drones solution is still in testing
- Tested for 2.4 Ghz drones
- Automated Script (.ssh) is partially working, Further improving it.

Project overview:

- The project tries to hack the drones which are not legitimate. It aims at monitoring and identifying the unfavourable drones which are being controlled by the intruders or the hackers who are meant for causing some form of destruction or harm.
- The project consists of a wifi gun and the deauthentication code. The wifi gun monitors all the available wifi signals within the system range to keep track of any unwanted drone in the area. It detects all the wifi drones and distinguish them as the favourable drones and the unfavourable drone (which is being controlled by the hacker). Whenever any hacker or an intruder enters into the range with his drone, the system identifies it and deauthenticate that drone such that it no longer remains under the control of the hacker and is taken down. The drone is now under the control of the system.
- This project is a part of smart security and surveillance of the city. It basically targets the public places where some form of events are being organised, like festive functions, public rallies etc, or in the risky areas which requires security services.

Proof of paper accepted or communicated/ Hackathon/ Patent



The screenshot shows a web browser with multiple tabs open, including 'TECH MAHINDRA LIMITED', 'The Python Bible™', 'patent paper - uditprabha...', 'Need Approval for Patent', 'WhatsApp', 'PPT format_Eval-2_VIIIth s...', and '8th feb drone hacking - G...'. The active tab is 'Need Approval for Patent', showing a Gmail inbox. The email thread is titled 'Need Approval for Patent Application' and is marked as 'External' and 'Inbox x'. The first email is from Udit Prabhakar to Avinash Kumar (SET Assistant Professor) at 4:25 PM (10 minutes ago). The second email is from Avinash Kumar to Udit Prabhakar at 11:00 AM (5 hours ago). The email content discusses the need for the current status of a patent application for a final year project.

Need Approval for Patent Application External Inbox x

Udit Prabhakar
Respected Sir, As per the received notification by our department, we need the current status of the patent application, which we have to present in the final e

Avinash Kumar (SET Assistant Professor)
to me, 2019643445.abhishek, Shubham, asthaagarwal08092000
this patent is on process

On Fri, Apr 1, 2022 at 10:55 AM Udit Prabhakar <2018007643.udit@ug.sharda.ac.in> wrote:

Respected Sir,
As per the received notification by our department, we need the current status of the patent application, which we have to present in the final evaluation of the final year project that is on 2nd April 2022.

It is kindly requested that you give us the current status of the patent application, we will always be grateful to you.

Previous patent application documents are attached to this email.

Team Member's details are as follows:

Udit Prabhakar (2018007643)
Abhishek Sharma (2019643445)
Shubham Kumar Jha (2018011469)
Astha Agarwal (2018014082)

Thanks & Regards
Udit Prabhakar
+91 9097753202 (WhatsApp Also)