



# **BIG BANG BOOM SOLUTIONS**

Your Friendly Neighbourhood Defence Company

# INTRODUCTION

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## ABOUT

Big Bang Boom Solutions is an INDIAN-Based defense startup specializing in advanced technology solutions for military and defense applications. We focus on developing cutting-edge software and hardware systems that enhance situational awareness, data analytics, and operational efficiency. Our innovations cater to various defense needs, including surveillance, reconnaissance, and communication, aimed at supporting armed forces with reliable, scalable, and secure technologies. Through collaboration with industry experts and research institutions, we strive to contribute to national security and defense readiness.

## SPECIALIZED IN

Intelligent Surveillance Systems

UAVs

Cyber Defense Solutions

Aircrafts Simulator

Robotics and Autonomous Systems

Defense equipment & Subsystem



# INTRODUCTION

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## VISION

BBBS is a company that specializes in integrating advanced defense solutions using deep technology. The company's primary objective is to create & develop its own proprietary intellectual property and pioneering in the field of defense research. Our vision is to achieve international acclaim by pioneering critical technologies that bolster our clients' defense and security imperatives.

## MISSION

Our mission is to play a decisive role in securing India's independence from defense imports, while developing advanced asymmetric technology that aids our clients in saving human lives.

# Work Culture

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Cafeteria



Team Events



Flexible work hours



Recognition



Career Growth



Remote work



Competitive Salary



Health Insurance



Advanced Training Opportunities

# HISTORY AND ACHIVEMENT

Founded





# HISTORY AND ACHIVEMENT



**Vajra Sentinel Systems  
(Anti- Drone Defence System)**



**Procurement Contract Signed During  
DEFCONNECT 24**



# Hackathon Details

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## ABOUT HACKATHON

We are excited to organize a hackathon on your campus (VIT Chennai), which will provide an incredible learning experience for all the students as well as career opportunities. The hackathon will feature two problem statements, and teams can choose one to solve within 48 hours.

We believe this event will offer invaluable experience and insight into practical problem-solving, innovation, and collaboration.

## TOPICS

1. Long Range Object Detection (Human/Car/Drone): Participants will create AI models to detect objects at long distances under varying conditions.
2. Mobile PIN Cracking: Teams will work on developing methods to crack a 6-digit mobile phone PIN.



# Hackathon Details

## CHALLENGES FOR PARTICIPANTS

### Long Range Object Detection:

- Detect objects like humans, cars, or drones from significant distances with high accuracy, and the model deployed on edge devices like jetson.
- Handle environmental factors such as weather, low visibility, or motion.

### PIN Cracking:

- Devise efficient to crack the 6-digit PIN within limited attempts or time constraints.
- Bypass the Devices additional security layers.

## KEY OBJECTIVES

1. Object Detection: Design AI models capable of accurate long-range object detection & calcification across challenging environments.
2. PIN Cracking: Develop innovative and efficient methods to crack a 6-digit PIN using Brute Force Attack techniques, MitM Attack, Exploiting Vulnerabilities, Side Channel Attack.



# Rules To Participants

- **Duration:** A 48-hour hackathon with continuous development, prototyping, and testing.
- **Team Size:** Maximum 3 participants per team.
- **Original Work:** All code and models must be developed during the event; no pre-built solutions allowed.
- **Use of Public Resources:** Participants may use publicly available datasets, tools, and libraries.
- **Ethics:** The PIN cracking challenge must be approached with ethical guidelines in mind—focused on security research.
- **No External Assistance:** Teams cannot seek outside help or use pre-existing PIN-cracking algorithms.
- **Mentorship:** Access to expert mentors from academia and industry for real-time guidance.
- **Limitations:** For the PIN challenge, a limited number of guesses (e.g., 10 attempts) or time constraints (e.g., 5 minutes) will apply.
- **Submission Deadline:** All solutions must be submitted within the 48-hour timeframe.
- **Final Demo:** Each team will present a working prototype and blueprint of their solution, followed by Q&A from the judges.



# Judging Criteria

**Accuracy:** The precision of object detection models and the effectiveness of PIN-cracking.

**Innovation:** Creative approaches to solving the challenges, including novel AI architectures and unique algorithmic methods.

**Efficiency:** Real-time performance for long-range detection, and speed for PIN cracking within defined constraints.

**Practicality:** Solutions must have real-world applicability, scalability, and potential for future development.



# Prize Details

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Job offer



Internship program



Pass to our workshop



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# THANKS

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