



# **PSTN FOR EMULATOR ON** **R/S VPS MK-III**

## **DIRECTING STAFF**

**Lt COL VIVEK GOPAL**

## **ASST DIRECTING STAFF**

**SUB NEERAJ SINGH**

**NB SUB RAJESH KUMAR**

## **SYNDICATE NO 2**

**HAV SANDEEP KUMAR**

**HAV ASHOK KUMAR**

**HAV SAMANDRA SINGH**

**HAV RAFIK DESAI**

AIM

TO DEVP EMULATOR FOR  
RS VPS MK-III (LUP 291)

# SCOPE

➤ **STUDY OF EMULATOR DESIGN SOFTWARE**

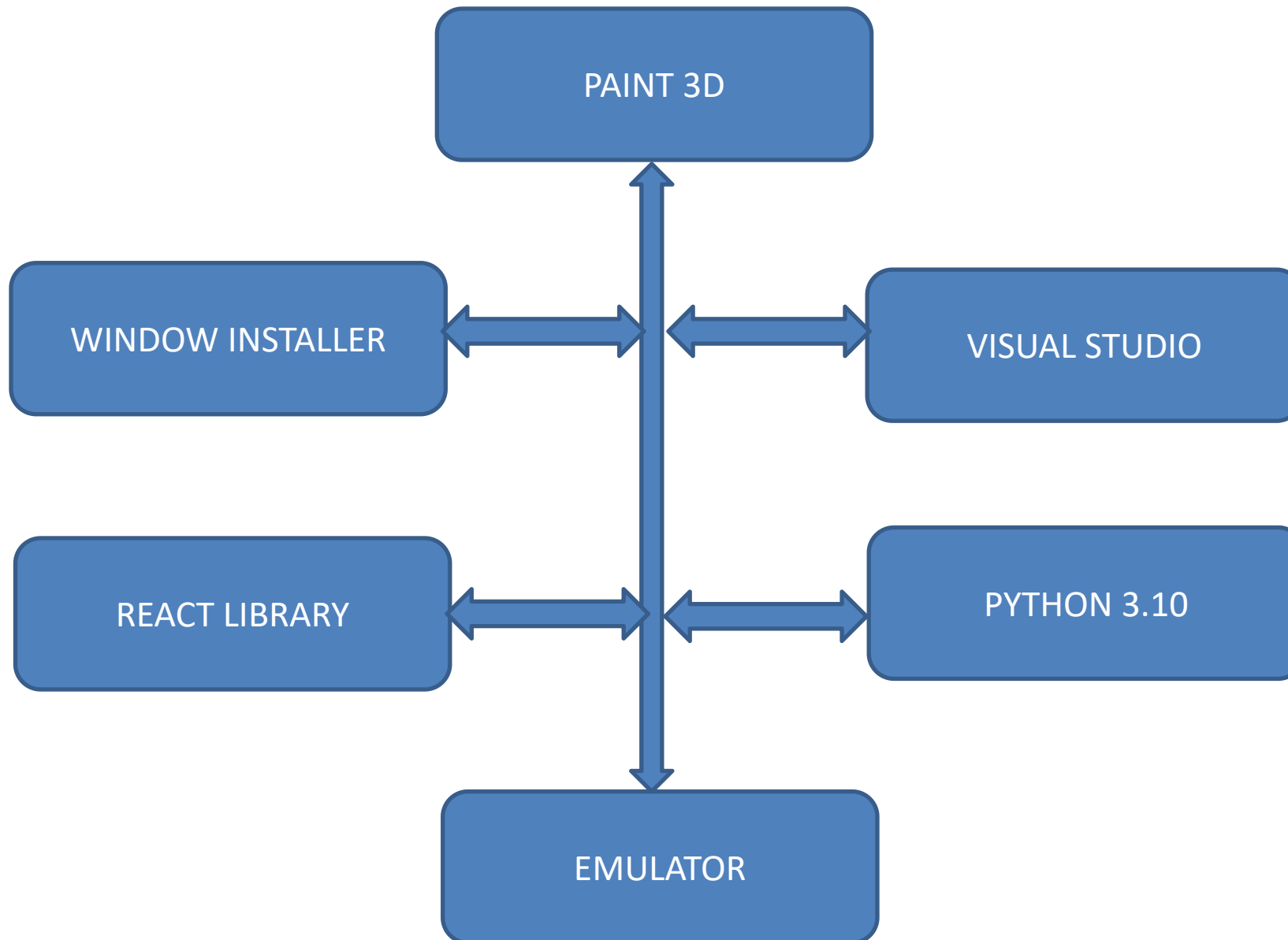
➤ **DESIGN FOR R/S VPS MK-III TO INCLUDING FWG FEATURES:**

- **OPERATION OF VARIOUS KNOBS**
- **DEMONSTRATION OF DIFF FEATURES**
- **INCLISION OF POSSIBLEMAINT LEVEL FEATURE- BITE/BIST**
- **ANALYSIS OF POSSIBLE CIRCUIT SIMULATION**
- **COMMUNICATION**

# FEATURES OF AN EMULATOR

- HEIRARCHIAL STRUCTURE
- RELATIONAL DATABASE
- INTERACTIVE
- AUDIO-VISUAL INTERFACE
- COMPRESSED DATA
- USER FRIENDLY
- HOSTING
- COMN

# ARCHITECTURE OF AN EMULATOR



# TECH SPECS

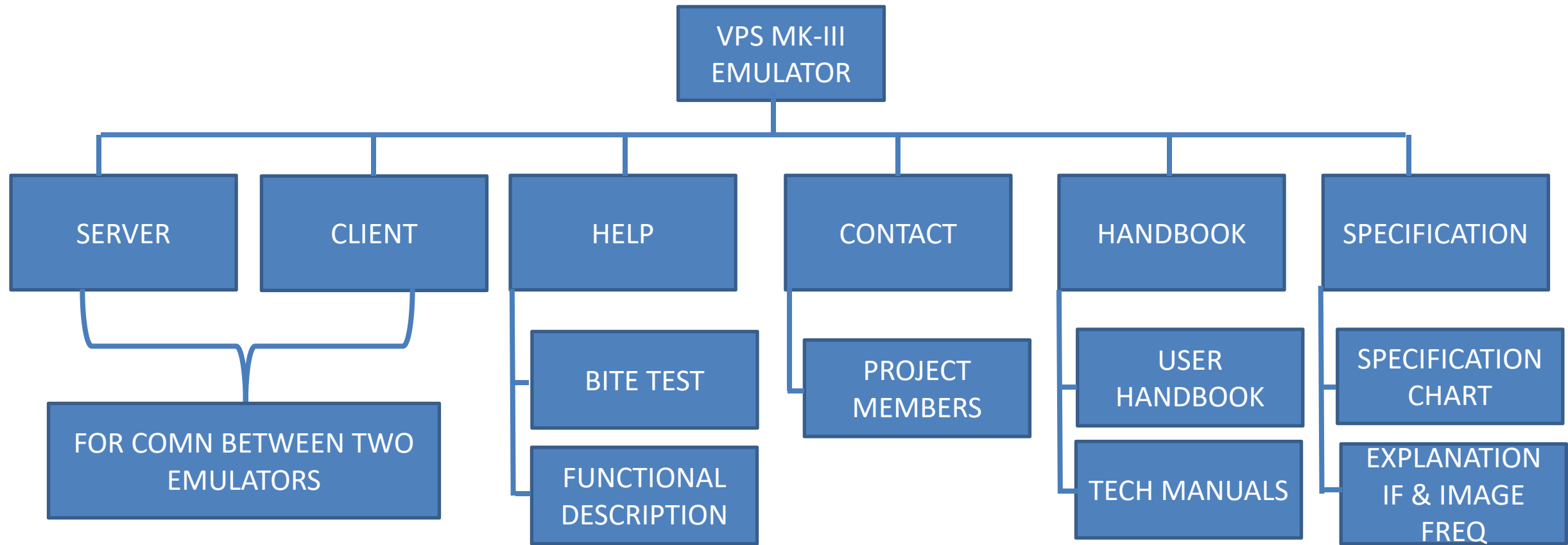
## APPLICATIONS USED

- ADOBE PHOTO SHOP
- NOTE PAD ++
- MS VISUAL STUDIO
- REACT LIBRARY
- LANGUAGE PYTHON

## PC REQMTS

- WIN 7 OR HIGHER
- 8GB RAM
- INTEL i5 PROCESSOR  
or HIGHER

# TREE STRUCTURE OF EMULATOR



# HOME PAGE

VPS EMULATOR x +

localhost:3000

VPS MK-III Emulator

Server Client ? Help Contact Handbook Specifications Off



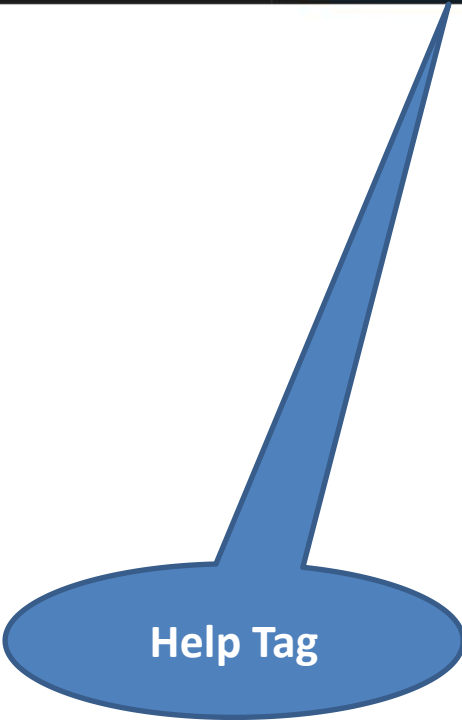



# HELP PAGE

VPS EMULATOR x +

localhost:3000/help


VPS MK-III Emulator ? Help Contact Handbook Specifications

 Help Tag

 BITE Test

POWER ON BITE TEST

0:01 / 2:01

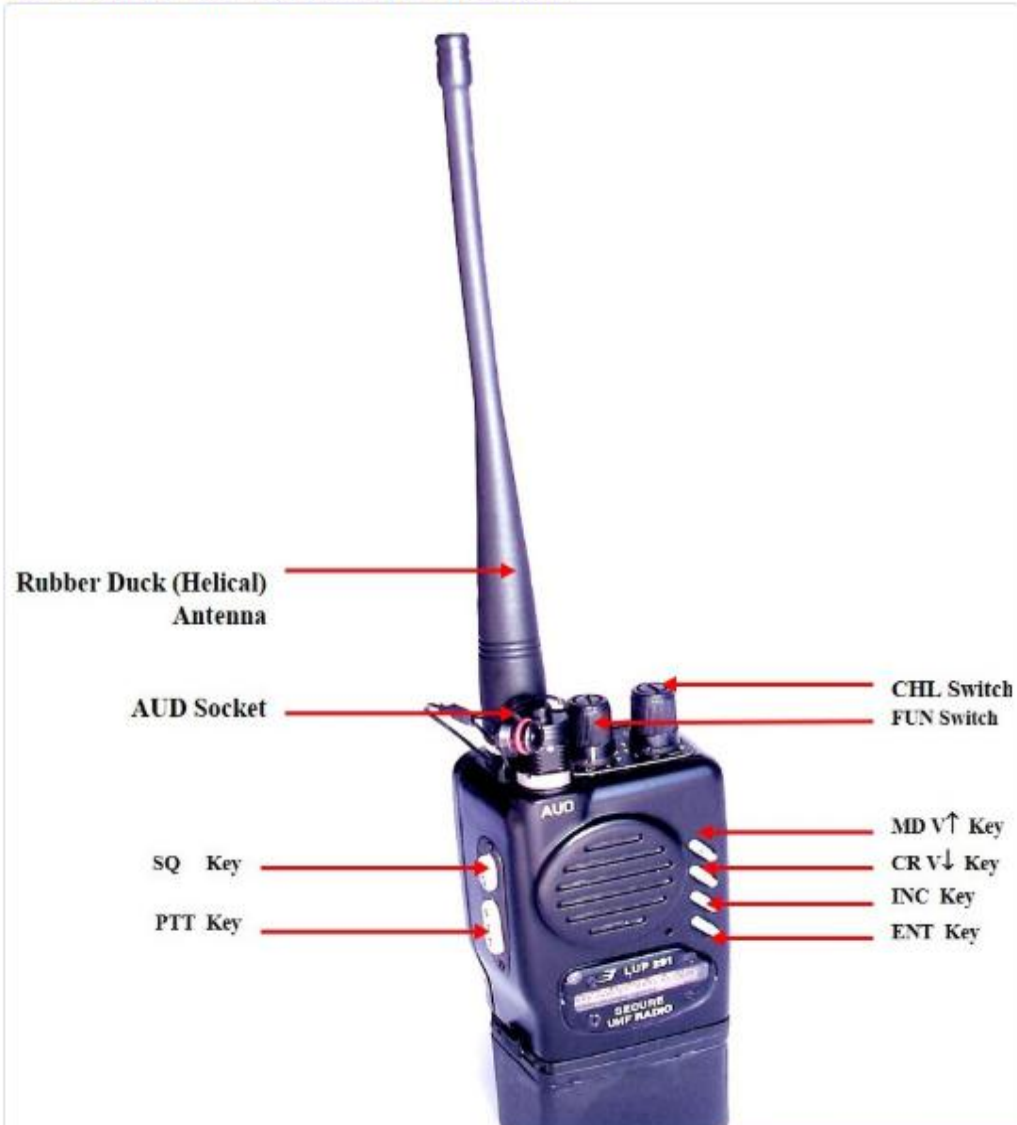
 Functional Description

Type here to search

19:26 10-11-2021

# HELP PAGE

[Click to know more about Keys Operation...](#)



## Functional Description

Functional description of RS VPS Mk-III (LUP 291). [Click on video to play....](#)



Type here to search



22:28

05-01-2020

ENG

# HANDBOOK DESCRIPTION

The screenshot displays the VPS EMULATOR interface. At the top, a red banner contains the title "HANDBOOK DESCRIPTION". Below this, the emulator's browser window shows the URL "localhost:3000/handbook". The interface includes a navigation bar with buttons for "VPS MK-III Emulator", "Help", "Contact", "Handbook", and "Specifications". The "Handbook" button is highlighted with a blue callout arrow pointing to it from a blue oval labeled "Handbook Tag".

The main content area is divided into two sections. On the left, a "Table of Contents" sidebar lists the following chapters:

- ▶ CHAPTER I - LEADING PARTICULARS & GENERAL DATA
- ▶ CHAPTER II - BRIEF TECHNICAL DESCRIPTION
- ▶ CHAPTER III - UNPACKING AND REMOVAL OF PRESERVATIVES
- ▶ CHAPTER IV - PREPARATION FOR USE & INSTALLATION SPECIFICATIONS
- ▶ CHAPTER V - OPERATING INSTRUCTIONS
- ▶ CHAPTER VI - USER'S/OPERATOR'S SERVICING AND MAINTENANCE INSTRUCTIONS
- ▶ CHAPTER VII - MISCELLANEOUS

The main content area displays the text of Chapter I, "LEADING PARTICULARS & GENERAL DATA", under the heading "CHAPTER I". The text is organized into sections:

- 1.0 INTRODUCTION**

The Secure UHF Handheld Radio LUP 291 is lightweight and portable transceiver. The radio is useful for ground communication at the platoon level. The simplex radio operates in the UHF frequency band of 403 to 470 MHz. The radio provides for clear and secure voice communication. The radio is microprocessor controlled. It has a user friendly MMI (Man Machine Interface).

The controls of the radio set are housed in the top, left and front panel (refer Para 1.9). A 7.2-Volt DC source powers the radio set from the bottom panel.

The accessories provided are antennae, battery charger, battery pack, fill gun and cables.
- 1.1 FACILITIES**

The facilities provided by radio are:

  - a. Clear and Secure modes of operation.
  - b. 150 Hz tone or carrier squelch operation.
  - c. Built-in high grade Digital Secrecy.
  - d. Secure key selection (32 Keys)
  - e. Manual Key entry (Key 33)
  - f. Selective call facility
  - g. 32 Preset Channels (4 banks of 8 Channels each)
  - h. 1 Manual Channel.
  - i. Preset and Manual Channel programming facility.

# SPECIFICATION PAGE

VPS EMULATOR

localhost:3000/specs

VPS MK-III Emulator

Help Contact Handbook Specifications

Contents 1 of 2

Page view Read aloud Add text Draw Highlight Erase

### TECHNICAL SPECIFICATIONS

#### VPS MK III

- Current Status.**

(a) Year of Induction	:	2006
(b) Replaced Eqpt	:	RS VPS MK-II (PUNWIRE)
(c) OEM	:	BEL Bangalore
(d) Population	:	46939
(e) Cost	:	Rs 23500.00
(f) Deployment	:	Platoon Level
(g) MAG	:	MAG 11 (BEL PKL)
- Support Structure.**

(a) MS No. 2	:	TL/F 805/7, Issue 1, Sep 2007
(b) SMT/STEs	:	TL/F 805/7, Issue 1, Sep 2007
(c) PRS	:	TL/F 806/7, Issue 1, Sep 2007
(d) FIS	:	TL/F 808/7, Issue 1, Apr 2013
- General.**

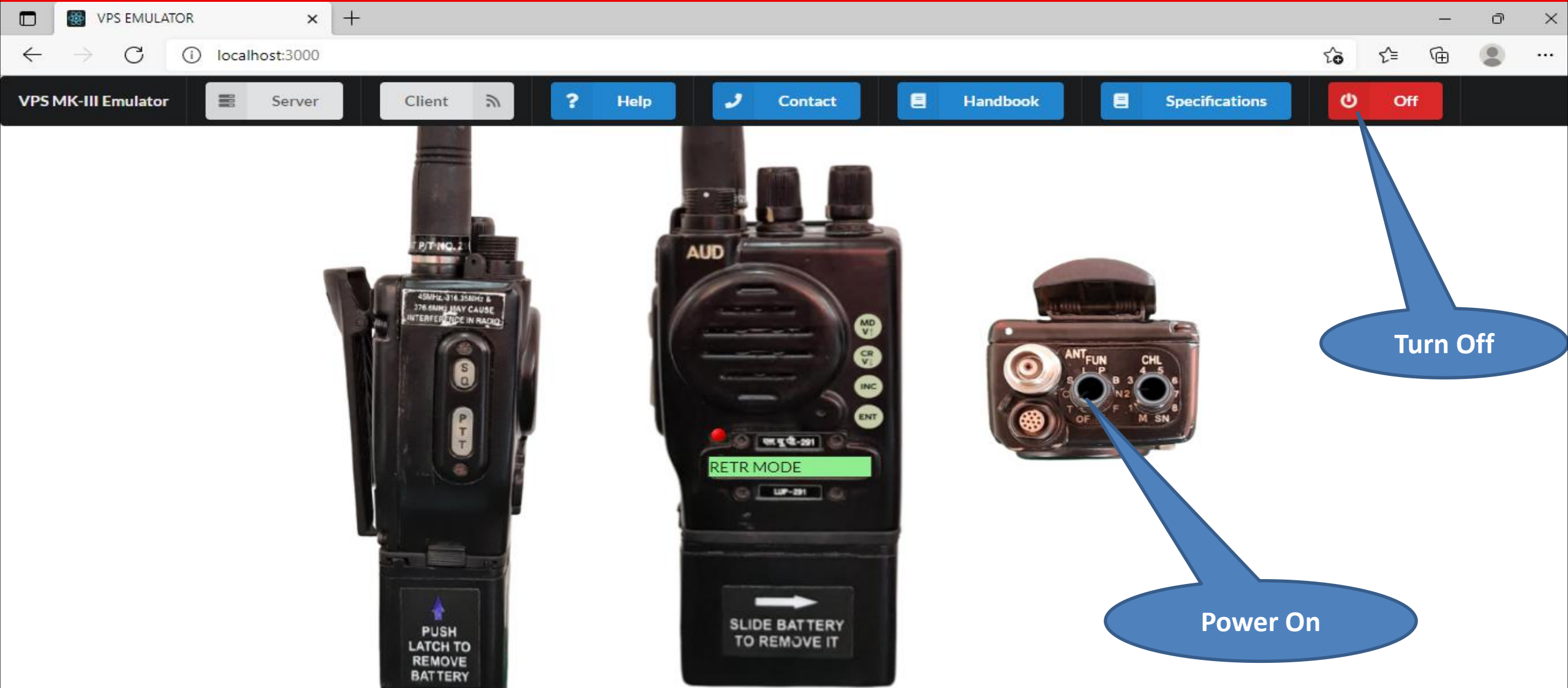
(a) Freq Range	:	403MHz to 470MHz
(b) Freq Stability	:	± 5PPM
(c) Channel Spacing	:	25 kHz (12.5kHz Optional)
(d) No. of Channels	:	2680
(e) Modulation	:	FM
(f) Preset Channels	:	32 (in 4 banks)
(g) Operating Modes	:	Voice - Clear Tone Squelch - Clear Carrier Squelch

Specification Tag

Type here to search

19:28 10-11-2021

# OPERATION





# CHALLENGES

- TIME AVAILABLE FOR THE PROJECT
- KNOWLEDGE OF PROGRAMMING OR TRAINING
- MAN HOUR REQD FOR MAKING INTERACTIVE VIDEOS, WEB PAGE, CODING
- SELF LEARNING FROM INTERNET
- NO STD DEFINED FORMAT/ LAYOUT OF EMULATOR

# CONCLUSION

- AN EMULATOR HAS BEEN DEVELOPED IN-HOUSE WHICH PROVIDES SIGNIFICANT COST SAVINGS
- ALLOWS BETTER INTEGRATION AND IMPROVES USABILITY
- AFTER STUDYING AND ANALYSING THE PROJECT OBJECTIVES AND THE CONCEPTS INVOLVED, THE SYNDICATE HAS SUCCESSFULLY COMPLETED THE 'DESIGN AND DEVELOPMENT OF AN EMULATOR FOR RS VPS MK-III (LUP-291)







INDIA

JAI HIND