

## **SPECIFICATION**

## AUTOMATIC FLIGHT CONTROLS TRAINER USING AUTOPILOT MODEL- APT-04

## **AFCT SYSTEM CONSISTS OF:**

- AIRPLANE MODEL.
- ROLL & PITCH CONTROLS.
- REAL TIME CONTROL OF RUDDER, AILERON, ELEVATOR, TRIM.
- REAL TIME GPS DATA.
- HUD DISPLAY IN PC.
- FLIGHT PARAMETERS DISPLAYED IN HUD.
- SATELLITE COUNT DISPLAYED IN HUD.
- CALIBRATION OF AUTOPILOT SENSORS LIKE GPS, ACCELEROMETER.
- REMOTE CONTROLS.
- DATA LINK THROUGH RF TELEMETRY MODEM.
- ERROR MESSAGE DISPLAYES IN HUD.
- FAILSAFE INDICATIONS FOR
  - o POWER,
  - o GPS,
  - o GEOFENCE,
  - COMMUNICATION FAILURE.
- REAL TIME ROUTE PLANNING THROUGH GOOGLE MAPS.
- DISPLAYES HOME POSITION OF PLANE.
- DISPLAYES VERTICAL HEIGHT.
- CONTROL SOFTWARE.
- NAVIGATION COMMANDS.
- GPS ACCURACY +/- 3 Meters.
- REAL TIME GEO MAPPING.
- ON BOARD SENSORS.
- VARIOUS OPERATING MODES OF AUTOPILOT.
- OPERATING PRINCIPLE OF AN AUTOPILOT.
- OPERATION OF ELECTRICAL SERVOS.
- TROUBLESHOOTING VARIOUS ELECTRICAL FAULTS IN THE AUTOPILOT SYSTEM.
- EFFECT OF SENSOR FEEDBACK SIGNALS ON AUTOPILOT OPERATION AND CONTROL.







