

Training for Detection & Radio Frequency Jamming of Drones

an advanced electronic system, Jamming system operation needs extensive training for technical staff of the local partner. The proposed 3-day course syllabus is provided below.

Number of persons: 3-5 persons

Number of days: 3 days

Fee: RM 2500/day

Trainer: Narayanan Manoj, C E O, Polarizone Technologies Sdn. Bhd.

(Profile of Narayanan Manoj is attached with this proposal)

Day 1	9.00a.m – 12.00 pm Overview of Wireless Communication	<ul style="list-style-type: none"> • Overview of wireless communication • HF, VHF, Microwave & Millimeter wave • Digital Modulation, QAM, OFDM • Low datarate Command & Control links • High datarate Video-links • Frequency Hopping Spread spectrum • Direct Sequence Spread Spectrum
	2 pm – 5 pm Overview of GNSS Overview of Drone Detector	<ul style="list-style-type: none"> • Overview of GNSS technology • Drone detection technologies • Audio / Video / IR detection • Radar detection • Micro-doppler radar • Pulse-doppler radar • Passive RF detection • Advantages/disadvantages
Day 2	9.00a.m – 12.00 pm Drone Detector & Detection Software	<ul style="list-style-type: none"> • RF Detection of Control signal • RF detection of the video signal • Noise riding threshold method • Cross-correlation method • Artificial Neural Network for detection
Day 2	2 pm – 5 pm Overview of Jamming	<ul style="list-style-type: none"> • Principles of RF jamming • Spot jamming, Barrage Jamming • Jamming efficiency and coverage • The jamming margin for GNSS, WCDMA • Jamming margin for FHSS systems • GPS jamming

		<ul style="list-style-type: none"> • Comm. jamming • GNSS Spoofing
Day 3	<p>9.00 – 12.00 pm</p> <p><i>Drone jammer Jammer Vehicle Installation</i></p>	<ul style="list-style-type: none"> • OMNI directional coverage (coverage calculation) • Directional jammer coverage (coverage calculation) • Vehicle installation of the antenna • Coverage testing
Day 3	<p>2 pm – 5 pm</p> <p>Quiz, Concluding session</p>	<ul style="list-style-type: none"> • Quiz on detector • Quiz on jammer • Review of SOP • Concluding remarks