

EWWI 2015 - ANNOUNCEMENT



EWWI 2015

Third National EW Workshop India (EWWI 2015)



Venue:
National Science Seminar Complex (NSSC)
Indian Institute of Science, Bangalore - 560013

Date:
11 - 13 February 2015

Email: indiacrows@aoc-india.org
Web: www.aoc-india.org

Third AOC India Chapter National EW Workshop India (EWWI 2015):

EWWI 2015 is the third event in the EWWI series of National Level Workshops, the only national level event in India in the field of Electronic Warfare, the niche and crucial part of the Modern Warfare. The Workshop is being organised by the organisers of prestigious EWCI series of International EW Conferences in India, the Association of Old Crows (AOC) India Chapter, Bangalore. The Three Day Workshop is designed to impart in-depth professional knowledge covering highly advanced and emerging topics in the field of EW.

The Workshop will have an intense technological coverage of several important topics in the field of EW by the internationally renowned expert and author, [Dr Richard Wiley, Retired Vice President and Chief Scientist of Research Associates Syracuse \(RAS\), Inc. USA](#). Additional talks on the internationally emerging EW Systems by industry experts and researchers are also offered as part of the course. A limited indoor technical exposition of emerging EW Systems and Sub-Systems is also organised as part of the EWWI 2015 event.

About the Author of Three Days Course on 'EW and Modern Signals'



[Dr Richard Wiley, Retired Vice President and Chief Scientist of Research Associates Syracuse \(RAS\), Inc. USA](#).

Dr. Richard Wiley, retired as Vice President and Chief Scientist of Research Associates of Syracuse (RAS), Inc. USA. He has over 40 years of experience in EW, specialising in Signal Analysis and Receivers. He has written four books and many technical papers. Dr. Wiley developed pioneering ELINT techniques including the Rapid Scan Superhet for LPI Signals, De-Interleaving Techniques, Optimum Scan Strategies, Advanced Radar Techniques, Improved ESM Receiver Sensitivity, etc. He served the Association of Old Crows as Chair of the Professional Development Committee from 2001-2007. He was elected a Fellow of the IEEE. He received BS and MSEE degrees from Carnegie-Mellon University and the Ph.D. from Syracuse University.

[In the Three Days of the Workshop covered by Dr. Richard Wiley, one will learn about current methods, future problems and possible solutions in the field of EW. The emphasis is on Signal Interception, Signal Processing and Signals Analysis. Attendees will also learn about EW and the support needed for ESM & ECM from ELINT. There will be examples to bring out the practical aspects of the theories presented.](#)

Who will be benefitted from the Workshop?

The Workshop is useful to all those personnel working in the field of Electronic Warfare and Information Operations and Related Fields, right from Operators of the Equipment at ground level in Tri-Services to the EW Strategists. The Workshop will be immensely useful to R&D Professionals from DRDO, Armed Forces and Manufactures like Defence PSUs and Indian Private EW Industry. The Workshop is also useful to Students and Academics of Avionics and Aeronautics.

EWWI 2015 : EW and Modern Signals Workshop Schedule

Day 1 – Wednesday, 11 February 2015

08:00 to 08:30 Hrs Registration

08:30 to 09:00 Hrs Inauguration of EWWI 2015

09:00 to 10:30 Hrs Session Coverage

- EW as it relates to Information Warfare (IW), ESM and ELINT & Environment
- The Signal Environment (Tomorrow's Threats plus Yesterday's and Today's)

10:30 to 11:00 Hrs Tea Break

11:00 to 13:00 Hrs Session Coverage

- Generic Radar Signals and Intercept Receivers
- Generic Receiver Sensitivity
- Range Equations and the Ratio of Intercept to Radar Range
- Warning Time and Receiver Sensitivity
- Wideband Receivers, Digital Receiver Technology and how they are different
- Sensitivity, KTB, and the Wideband Receiver
- Signal-to-Noise Ratio Required

13:00 to 14:00 Hrs Lunch Break

14:00 to 14:30 Hrs Exhibition Visit

14:30 to 16:00 Hrs Session Coverage

- Probability of Intercept Problems and Solutions
- Beam-on-Beam
 - Beam-on-Beam on Frequency
 - Narrowband Receivers vs Frequency Agile Signals

16:00 to 16:30 Hrs Tea Break

16:30 to 18:00 Hrs Session Coverage

- Modern Signals are Different; LPI Radars
 - Time-Bandwidth Products: Practical and Theoretical Limits
 - Modern Radar Waveforms
 - Interception of LPI Signals

Day 2 – Thursday, 12 February 2015

09:00 to 10:30 Hrs Session Coverage

- Future ESM Receiver Concepts
 - Basic Sensitivity Enhancements
 - Intercepting Modern Radar
 - Signal Processing Techniques Non-Coherent Approach
 - Coherent and Non-coherent Integration Concepts
 - Partially matched ESM to Radar

10:30 to 11:00 Hrs Tea Break

11:00 to 13:00 Hrs Session Coverage

- Future ESM Receiver Concepts (Continued)
 - Frequency vs Time - Environment and RSSR Sweeps
 - LFM- Bandwidth Choices
 - Time-Frequency Transforms
 - Cross-Correlation Method
 - Implementation Problems
 - ELINT and Future of LPI Radar

13:00 to 14:00 Hrs Lunch Break

14:00 to 14:30 Hrs Exhibition Visit

14:30 to 15:00 Hrs Invited Talk 1

15:00 to 15:30 Hrs Invited Talk 2

15:30 to 16:00 Hrs Tea Break

16:00 to 18:00 Hrs Session Coverage

- Antenna Considerations and Direction Finding
- Emitter Location

Day 3 - Friday, 13 February 2015

09:00 to 10:30 Hrs Session Coverage

- PRI Sorting and Analysis Methods
 - PRI Types Details
 - PRI Measurement Techniques
 - Effects of noise and Amplitude variation on PRI Measurements

10:30 to 11:00 Hrs Tea Break

11:00 to 13:00 Hrs Session Coverage

- PRI Sorting and Analysis Methods (Continued)
 - PRI Analysis using Histograms
 - PRI De-interleaving Techniques
 - PRI Sorting
 - Precision PDWs in Modern ELINT Analysis

13:00 to 14:00 Hrs Lunch Break

14:00 to 14:30 Hrs Exhibition Visit

14:30 to 15:00 Hrs Invited Talk 3

15:00 to 15:30 Hrs Invited Talk 4

15:30 to 16:00 Hrs Tea Break

16:00 to 18:00 Hrs Session Coverage

- Typical RWR Uses of ELINT Data
- Airborne Jammer Example Implementation Problems
- Applications of Modern EW Systems and Technology

18:00 to 18:30 Hrs Valedictory Function

Registration:

The Registration Fee for the Three Day Workshop is **Rs 8,000 per Head**. A **20%** concession is offered to AOC India Chapter Members (membership taken before 15 December 2014). The Fee includes Course Material, Delegation Kit, Working Lunch and Snacks and does NOT include Accommodation, Transport or any Other Expenditure.

Technical Exposition:

A limited Exhibition Area (about 10 Booths of 3m x 3m Shell Type Cubicle) is provided to Sponsors to Display their Products. EW Organisations who are interested in sponsoring the Event may contact the Conference Coordinator, EWWI 2015, AOC India Chapter, as early as possible, as available booths are very limited. The Workshop Sponsorship that entitles a Booth space is charged with a Fee of **Rs 2,00,000**. No TDS required as AOC India Chapter is a not-for-profit Association of EW Professionals.

Note: Technical Display will be open for all Delegates throughout the Workshop.

Proceedings:

The Detailed Material of the Workshop will be provided in the Form of Hardcopy - **Proceedings**, as well as in a **CD**.

Mode of Payment:

All Payments are to be made by Demand Draft or Cheque drawn in favour of "**Association of Old Crows, India Chapter**". The last date for the realisation of payment is **10 January 2015**. The completed Registration Form available on our Web Site (www.aoc-india.org) may be emailed to indiacrows@aoc-india.org or mailed to Workshop Coordinator at AOC India Chapter's address. Payment may be made through Electronic Transfer Mode of Payment also. Details for the Electronic Transfer are:

Bank: State Bank of India

Bank Address: ADE Branch, PB 7524, New Tippasandra PO, Bangalore – 560075

A/C No. 31110327170, **IFSC Code:** SBIN0006538

Beneficiary: "Association of Old Crows, India Chapter"

On the Spot registration is subject to availability of Delegate positions and is with prior intimation and confirmation from the Workshop Coordinator. Photo ID proof will be required at the Registration time. Therefore please register sufficiently in advance to avoid disappointment. No tax to be deducted at source on any payments made to the AOC India Chapter as it is a not-for-profit Association of EW Professionals registered under Registrar of Societies act, Karnataka.



Workshop Organising Committee

Dr U K Revankar

Former Director, DARE, Bangalore and President, AOC India Chapter, **Workshop Advisor**

Mr T N Yadgiri Rao

Former Associate Director, DLRL and Vice President, AOC India Chapter

Mr H V Harish

CEO, Spur India, Bangalore, Secretary, AOC India Chapter and **Workshop Coordinator**

Mr N Chandrasekaran

Scientist F, OoDG (ECS), DARE, Bangalore and Treasurer, AOC India Chapter

Mr J Shanker Rao

Scientist H, DLRL, Hyderabad and Director, AOC India Chapter

Mr Umesha K P

Scientist F, DARE, Bangalore and Director, AOC India Chapter

Mr Philip Jacob

Executive Director (Central-D&E), BEL, Bangalore, and Director, AOC India Chapter

Mr M V Gowtama

General Manager (MILCOM), BEL, Bangalore and Director, AOC India Chapter

Wg Cdr V B Athmaram (Retd)

Former CEO, AEDS Pvt Ltd., Bangalore, and Director, AOC India Chapter

Further Information:

All latest details regarding EWWI 2015 will be available in the Chapter's Web Site. For Further Information and Sponsorship/Advertisement Enquiries please contact the Workshop Coordinator.

EWWI 2015

Workshop Coordinator

#414, Church Street, New Tippasandra Post, HAL III Stage

Bangalore –560075, India.

Telefax: +91 80 25287813, Mob : 9483606038

Email: indiacrows@aoc-india.org

Web: www.aoc-india.org



REGISTRATION FORM

Third National EW Workshop in India - EWWI 2015
During 11 to 13 Feb 2015, at NSSC, IISc, Bangalore

Name: _____ Designation: _____

Organisation: _____

AOC Membership No (If Member): _____

Office Address: _____

Telephone (Office) _____ Fax: _____

Mobile: _____ Email: _____

Payment Details:

Draft/Cheque No and Date: _____ Amount (Rs): _____

Drawn on Bank and Branch: _____

Transaction Date/Details if Bank Transfer: _____

Date: _____

Place: _____

Signature _____

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Bank: State Bank of India, Bank Address: ADE Branch, PB 7524, New Thippasandra PO, Bangalore – 560075.
A/C No. 31110327170 IFSC Code: SBIN0006538 Beneficiary: "Association of Old Crows, India Chapter"

EWWI 2015 Workshop Coordinator

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