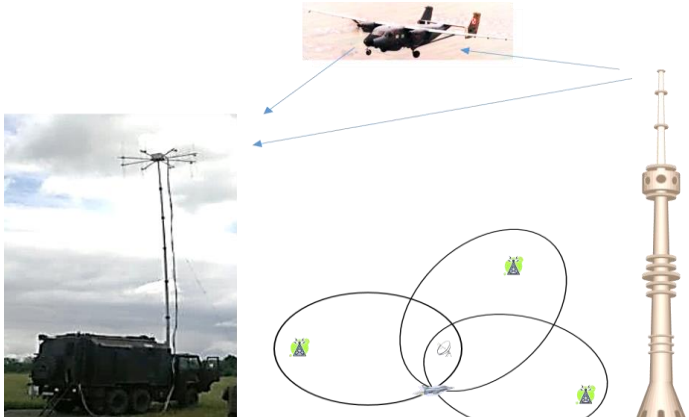
NATO LECTURE SERIES SET-243



Passive Radar Technology

Wright Brothers Institute & Collaboration Center, Dayton, OH, (USA)
06 – 07 September 2017

University of Pisa, Pisa, (ITA)
06 - 07 November 2017

Warsaw Univeristy of Technology, Warsaw, (POL)
09 - 10 November 2017

This Lecture Series is NATO UNCLASSIFIED open to Australia, Finland and Sweden

BACKGROUND

The mission of STO is to conduct and promote co-operative research and information exchange. STO consists of a three level organization: the Science and Technology Board (STB), the Panels and the Technical Teams. The Systems and Electronics Technology (SET) Panel is one of the seven Panels under the STB.

The SET Panel mission is to advance technology in electronics and passive/active sensors as they pertain to reconnaissance, surveillance and target acquisition, electronic warfare, communications and navigation; and to enhance sensor capabilities through multi-sensor integration/fusion. This concern the phenomenology related to target signature, propagation and battle space environment, EO, RF, acoustic and magnetic sensors, antenna, signal and image processing, components, sensor hardening and electromagnetic compatibility.

THEME

The goal of the LS on “Passive Radar Technology” is to provide to the wide military and civil audience the information about passive radars including passive radar fundamentals, properties of passive radars using different illumination sources, availability of illuminators, coverage for different altitudes, range, Doppler and localization accuracy, ability of deployment in different scenario etc.

TOPICS TO BE COVERED

- Passive radar fundamentals.
- Signal models, propagation models, coverage analyses.
- Properties of different passive radars using different illuminators of opportunity like FM, DAB, DVB-T, GSM, WiFi, WiMax, LTE, satellite, active radars.
- Signal processing and clutter cancelation
- Bistatic tracking, target localization and Cartesian tracking
- Target imaging, passive SAR and ISAR, multistatic imaging
- User requirements, applications
- Existing demonstrators and commercial systems.

NATO OTAN

S&T organization

DAY ONE

08:30	Registration
09:00	**Opening remarks**
09:15	**PCL History and Fundamentals** *Heiner Kuschel*
10:45	Coffee Break
11:00	**PCL Waveforms** *Chirs Baker*
12:30	Lunch Break
14:00	**Adaptive Signal Detection for PCL** *Braham Himed*
15:30	Coffee Break
15:45	**Exploiting Signal Sparsity for PCL** *Braham Himed*
17:00	**Adjourn** End of Day 1

DAY TWO

09:00	**PCL tracking and Data Fusion** *Krzysztof Kulpa*
10:30	Coffee Break
10:45	**Passive Radar Imaging** *Marco Martorella*
12:15	Lunch Break
13:30	**PCL on Moving Platforms** *Krzysztof Kulpa*
15:00	Coffee Break
15:15	**PCL Applications** *Heiner Kuschel*
16:45	**00 Summary and Concluding Remarks**
17:00	**Adjourn** End of Day 2

All presentations and discussions will be in English.

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APPLICATION TO ENROL

LECTURE SERIES SET-243

DAYTON, OH, (USA)	Sept. 06 – 07, 2017
PISA, (ITA)	Nov. 06 – 07, 2017
Warsaw, (POL).....	Nov. 09-10, 2017

Please respect the latest Enrolment Dates

NATO Nations: 1 week prior LS date

Non-NATO Nations: 2 weeks prior LS date

Enrolment must be made via internet only at
https://events.sto.nato.int

NOTE: if you enrolled for other STO activities in the past, please use the same log in details as previously. If your e-mail address has changed, please update your contact details before enrolling.

Within a few days you will receive another automatic email confirming that your booking has been validated. Clicking the link in this email you will be redirected to the STO Events website where you can now log on, go the SET -243 Lecture Series website and access the General Information Package as well as any future updates on the event.

If you are unable to enrol via the internet, please contact

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