

IEEE AESS
Board of Governors Meeting
VP Education Report

April 2009

Iram Weinstein
VP Education, IEEE AESS

Outline

- **Introduction**
- **Education Committee**
- **Video Tutorial Implementation Progress**
 - **Pricing and Other Features**
 - **View of Website**
 - Three Tutorials Ready to Go
 - Go Live Date
 - **Expansion of Tutorial Program**
 - Tutorials in the works
 - Challenges
 - **Links to Free Tutorials**
 - A public service
 - Competes with ours (so what?)
- **Other Issues**
 - **Tutorials, Distinguished Tutorials**
 - **Printed Tutorials**

Introduction

- **The goal of this video education initiative is to provide low cost, high quality (both technical and video) education videos to our members, particularly our student members.**
- **We are allowed to do this endeavor by the emergence of two enabling technologies:**
 - **Low cost, high-resolution, high-quality web cams and camcorders**
 - **The maturation a low cost software package (Camtasia Studio 4), which allows:**
 - **Screen capture of PowerPoint slides, and**
 - **Simultaneous embedding the speaker's, audio and video**
 - **All done in a user friendly “click and drag” Windows environment**

Courtesy: Bob O'Donnell May 2008

Education Committee Members

- **Hugh Griffiths** –
 - University College, London & Chair, Radar Systems Panel
- **Bob O'Donnell**
 - Past chair and father of the online tutorial program
- **Mike Wicks**
 - Incoming Chair, Radar Systems Panel
- **Marina Ruggieri**
 - AESS President Elect
- **Dale Blair**
 - Transactions Editor
- **Barry Greenberg**
 - System of Systems Panel Chair
- **Mark Yeary**
 - new Synthetic Aperture Radar and Improvised Explosive Device Detection Panel Chair
- **Steve Watkins (for the student aspect)**
- **Lance Kaplan**
 - EIC of the magazine tutorials

So far, we've had minimal interaction

Pricing and Other Features


AESS Members	Non- members	Student Members
\$100	\$150	\$0

- **Free video preview before purchase**
- **AESS Membership validated by member number**
- **Tutorial available for viewing for 30 days**
- **Includes PDF copy of slides for download**

A Look at the Web Site

- **Still under development**
 - Goal is to be complete by April BoG Meeting
 - And go public in time for the IEEE RadarCon09 (May 4)
 - We can view its current status
- Go to <http://ieee-aess.org/evts/>
- **Publicity plans**
 - Announcement in June Systems Magazine
 - AESS Web page
 - Emails to Section and Chapters?
 - Other avenues?

View of Web Site



AESS Educational Video Tutorial Site

[EVTS HOME](#) [VIDEO TUTORIALS](#) [OTHER TUTORIALS](#)

SHOPPING CART
There are no products in your shopping cart.
0 Items **Total: \$0.00**

PURCHASE TUTORIALS

- » **Bistatic & Multistatic Radar Series**
- » **Radar System Performance Modeling Series**
- » **Sea Clutter Series**

USER LOGIN

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- » **Create new account**
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WELCOME

Posted Thu, 04/02/2009 - 00:52 by admin

Welcome to our new AEES Education web site!

Our efforts in education center on two initiatives: the Distinguished Tutorials Program and our Video Education Initiative. The Distinguished Tutorials Program, which was established in 2006 allows a Section or an AEES Chapter to invite a Distinguished Instructor to give a tutorial at no cost to the hosts. The AEES picks up the travel cost and pays for an honorarium. With the Video Education Initiative, we are endeavoring to develop and build up a robust, web-based, technical learning center that is tailored to meet the educational needs of the members of our Society, both the student members and the professional members, and do that at low-costs. Initially, the educational thrust will be in presenting tutorials. These will cover both broad, elementary topics, as well as specialized, quite advanced subject material. There will be a range of focus to the tutorials.

The Education Committee solicits your help and active participation. We need more people to volunteer as lecturers. Let us know about a colleague who would be a great speaker. And, if you have any ideas, or would like to volunteer in any way, please contact me at iweinstein@ieee.org. You can also contact anyone on the Education Committee. Thank you very much.

VIDEO TUTORIALS

Posted Wed, 04/08/2009 - 15:46 by admin

Three video tutorials are available. You can view author information, an outline of the tutorial and a brief video introduction by clicking on the tutorial name in the panel on your left. The tutorials are free to AEES student members, \$100 each for AEES members and \$150 for all others. With your purchase, you receive access to the tutorial for 30 days and the ability to download a copy of all the tutorial slides. Please take the opportunity to browse the site. If you have questions, comments or suggestions, I again invite you to contact me at iweinstein@ieee.org.

Dr. Iram Weinstein

AEES V.P., Education

Click on Sea Clutter



AESS Educational Video
Tutorial Site

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[VIDEO TUTORIALS](#)

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Total: \$0.00

PURCHASE TUTORIALS

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- » [Radar System Performance Modeling Series](#)
- » [Sea Clutter Series](#)

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Sea Clutter Series - Subscription

Posted Wed, 04/01/2009 - 21:48 by admin

The understanding and modelling of radar sea clutter is central to the design and performance evaluation of radars in a maritime environment. The first part of the tutorial will introduce the methods used to describe radar sea clutter and show how physical and empirical models are developed.

The second part of the tutorial will show how clutter models are used to predict performance and analyse the performance of CFAR detection systems. This will concentrate on the application of the compound K distribution sea clutter model.

Preview:

FREE Video Preview

Detailed Purchase Information:

	Quantity
Subscription Days	30
Total Video Time	1 Hour 30 Min
Total Video Parts	9
Downloadable Files	1

List Price: \$150.00

[ADD TO CART](#)

Author Information:

Author: Prof Simon Watts & Dr Keith Ward

Prof Simon Watts

Simon Watts graduated from the University of Oxford in 1971 and obtained a MSc from the University of Birmingham in 1972. He is currently deputy Scientific Director of Thales UK, Aerospace Division and is also a Visiting Professor in the department of Electronic and Electrical Engineering at University College London. He joined Thales (then EMI Electronics) in 1967 and since then has worked on a wide range of radar and EW projects. His research interests include the modelling of radar sea clutter and the development of signal processing techniques for radar target detection, and he obtained a PhD for work in these areas from the CNA in 1987. He is author and co-author of over 35 journal and conference papers, and several patents. He was chairman of the international radar conference RADAR-97. He was appointed MBE in 1996 for services to the UK defence industry and is a Fellow of the Royal Academy of Engineering, Fellow of the IEE and Fellow of the IEEE.

Dr Keith Ward

Keith Ward was educated at the Universities of Cambridge and Birmingham. He is currently Technical

Free Preview

Sea Clutter Series - Introduction

Posted Wed, 04/01/2009 - 20:30 by admin



The video player interface shows a presentation slide. On the left is a small video window with a man speaking. Below it is a table of contents. The main slide area displays the following text:

Introduction to a TUTORIAL
on

SEA CLUTTER
Scattering, the K Distribution
and Radar Performance

Simon Watts Keith Ward
Thales UK *igence radar*
Aerospace Division

igence THALES

At the bottom of the player are playback controls (play, pause, stop, volume) and a progress bar showing 00:12 / 05:44.

Introduction
Sea Clutter
Untitled-2
Sea Clutter
The sea surface
The sea surface
Sea clutter reflectivity
SAR image of the sea
Observations of amplitude di
Polarisation Characteristics
Clutter Spectra
Spectrum analysis of range-t
Distribution of the speckle cc

[Login](#) or [register](#) to post comments

Registration Screen

**AESS Educational Video Tutorial Site**

MEMBER STATUS
Currently NOT logged in
Scroll down and log in on your left

[EVTS HOME](#) [SUBSCRIPTIONS](#) [OTHER TUTORIALS](#) [WHERE DO I START?](#)

USER NOTICE
Please notice, you might already have an account...
[Login Instructions](#)

SHOPPING CART
There are no products in your shopping cart.
0 Items **Total:** \$0.00

SUBSCRIPTIONS

- Bistatic & Multistatic Radar
- Radar System Performance Modeling
- Sea Clutter Series

Please notice, you might already have an account...
[Login Instructions](#)

[CREATE NEW ACCOUNT](#) [LOG IN](#) [REQUEST NEW PASSWORD](#)

User account

Thank you for your interest in the AESS EVTS. We require each registrant to be validated and assigned the appropriate member value. If you have a member number, from your IEEE AESS Membership (student or full member) please enter it below. If you are an IEEE AESS Member you can ignore this step and your account will be activated as soon as possible.

Username: *

Spaces are allowed; punctuation is not allowed except for periods, hyphens, and underscores.

E-mail address: *

A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by e-mail.

Confirm e-mail address: *

Please re-type your e-mail address to confirm it is accurate.

Member Number:

Enter your IEEE AESS Member/Student Member number as assigned by IEEE.

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AESS Members are preregistered

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AESS Educational Video
Tutorial Site

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SHOPPING CART
1x Radar System Performance Modeling - Subscription \$100.00
1x Bistatic & Multistatic Radar - Subscription \$100.00
2 Items **Total: \$200.00**
[View cart](#) | [Checkout](#)

SUBSCRIPTIONS

- » Bistatic & Multistatic Radar
- » Radar System Performance Modeling
- » Sea Clutter Series

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- » Log out

Checkout

Cart contents

Qty	Products	Price
1x	Radar System Performance Modeling - Subscription	\$100.00
1x	Bistatic & Multistatic Radar - Subscription	\$100.00
		Subtotal: \$200.00

Customer information

Order information will be sent to your account e-mail listed below.
E-mail address: [test1@test.com](#) (edit)

Billing information

Enter your billing address and information here.

*First name:
*Last name:
Company:
*Street address:
*City:
*Country: United States
*State/Province: Please select
*Postal code:
Phone number:

Our Tutorials

- **Ready now**
 - **Sea Clutter – Simon Watts & Keith Ward**
 - **Bistatic and Multistatic Radar – Hugh Griffiths**
 - **Radar System Performance Modeling – Dick Curry**
- **In Work**
 - **Space Time Adaptive Processing – Scott Goldstein & Mike Picciolo**
- **Promised but not started**
 - **Auto Radars: Hermann Rohling**
 - **Phased Arrays – Eli Bruckner**
 - **Weather Radar – Mark Yeary**

Links to Free Tutorials

Electrical Engineering and Computer Science		
NEET Course #	Course Title	Term
4-800	Circuits and Electronics	Spring 2007
4-803	Electromagnetics and Antennas	Fall 2005
4-833	Computer System Engineering I (CS 300)	Spring 2005
4-805	Computer Language Engineering I (CS 300)	Fall 2005
4-8447	Introduction to Algorithms I (CS 300)	Fall 2005
4-871	Topics in Molecular Engineering for the Life Sciences	Spring 2007
4-831	Introduction to Analog Electronics Laboratory	Spring 2007
4-811	Introduction to Control Systems Laboratory	Spring 2006
4-843	Mobile Device Laboratory	Fall 2005
4-823	Nonlinear Programming	Spring 2004
4-276	Autonomous Robot System Construction (IAP) 2004	January (IAP) 2004
4-345	Advanced Search Paradigms	Spring 2003
4-458	Principles of Digital Communications I	Fall 2004
4-455	Principles of Digital Communications II	Spring 2005
4-441	Computational Fluid, Finite, and Struct	Spring 2005
4-774	Physics of Microfabrication, From End Electronics	Fall 2004
4-763	Submicrometer and Nanometer Fabrication	Spring 2004
4-912	Introduction to Control Law	January (IAP) 2004

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Engineering Systems Division		
NEET Course #	Course Title	Term
E80-833	Electromagnetics and Applications	Fall 2005
E80-294	Special Topics in Supply Chain Management	Spring 2008
E80-781	Aircraft Systems Engineering	Fall 2005
E80-833	Control of Manufacturing Processes	Spring 2008
E80-932	Engineering Ethics	Spring 2006

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webcast/courses			
Support on...			
Spring 2009 Courses			
Select Semester	Spring 2009	Video Audio	
Anthropology 1, 801	Introduction to Biological Anthropology	TTU 12-10-2	WHEELER, JUD
Biology 1A, 801	General Biology Lectures	HWF 8-9	0051 PIMENTEL
Biology 1A, 801	General Biology Laboratory	HS 4-10	0051 PIMENTEL
Biology 1B, 801	General Biology	HWF 8-9	2050 VALLEY, LISA
Chemistry 1A, 802	General Chemistry	HWF 1-2	0051 PIMENTEL
Cognitive Science C182, 801, Psychology C129, 801	Scientific Approaches to Consciousness	HW 11-12	0351 MORGAN
Demography C175, 801, Economics C175, 801	Economic Demography	TTU 2-3-30	PS295 HAAS
Economics 1088, 801	Economic Analysis - Micro	TTU 3-30-5	2050 VALLEY, LISA
Economics C181, 801, Environmental Economics and Policy C181, 801	International Trade	TTU 3-30-5	0004 LECHEATE
Education 2769, 801	Measurement in Education and the Social Sciences II	HS 9-12	0227 DWIBELLE
Electric of Engineering 141, 801	Introduction to Digital Integrated Circuits	WF 2-3-30	0303 MCLAUGHLIN
Electric of Engineering 246, 801	Advanced Analog Integrated Circuits	TTU 9-30-11	0303 MCLAUGHLIN
Electric of Engineering 241, 801	Advanced Digital Integrated Circuits	TTU 9-30-5	0303 MCLAUGHLIN
Energy and Resources Scrum 182, 801	Quantitative Aspects of Global Environmental Problems	TTU 9-30-11	0350 GAPP
Engineering 43, 801	Properties of Materials	HWF 10-1	0050 EVANS
Engineering 7, 801	Introduction to Computer Programming for Scientists and Engineers	HWF 1-2	0235 DWIBELLE
Environ Sci, Policy, and Management 114, 801	Wildlife Ecology	HW 2-3	0245 DWIBELLE
Innovative 26, 801	Globalization	HWF 2-4	0241 MCCONE
Industrial Envrn and Oper Research 131, 801	Discrete Event Simulation	HW 11-12	0358 NORTH, GATE
Law 2721, 801, Law 2721, 802	International Environmental Law	HS 10-4-10	0315 BOALTY
Letters and Science C709, 801, Physics C18, 801	Descriptive Introduction to Physics	TTU 9-30-11	0051 PIMENTEL

More to come

COURSES AT LINCOLN LABORATORY



Introduction to Radar Systems Course

16-18 June 2009

This course has been developed to provide an understanding of radar system concepts and technologies to military officers and DoD civilians involved in radar systems development, acquisition, and related fields. The three-day program consists of lectures, demonstrations, laboratory sessions, and tours designed to instill a basic knowledge of radar systems. Attendance to this course requires a security clearance.



Ballistic Missile Defense Technology Course

TBD 2009

The Ballistic Missile Defense (BMD) Technology Course provides an understanding of BMD systems, concepts, and technologies for military officers and DoD civilians involved in BMD systems development, acquisition and related fields. This three-day program instills a working knowledge of BMD systems and consists of lectures, demonstrations, tours, and laboratory exercises. Attendance to this course requires a security clearance.



Networking and Communications Course

5-7 May 2009

The course covers the fundamentals and advanced concepts of Networks and Communications Systems for military officers and DoD civilians who are involved in network and communications research, development, acquisition, and related fields. The three-day program consists of classified lectures, demonstrations, and tours. Attendance is by invitation only. A security clearance is required for attendance.

Challenges and Issues

- **I'm having difficulty getting tutorials**
 - All so far are radar oriented
 - Need help here
- **Automatic validation of AESS member/Student member**
 - All current members will be preregistered
 - Will require periodic updating
 - Current work around is to validate by hand at conference Catalysts
 - Probably means a 24 hour delay

Other Issues

- **Distinguished Tutorials**
 - **Web page says:** allows a Section or an AESS Chapter to invite a Distinguished Instructor to give a tutorial at no cost to the hosts. The AESS picks up the travel cost and pays an honorarium. funds are available for three or more Tutorials in 2007.
- **What should the relationship between our various efforts be?**