

From the Editor-in-Chief

AUGUST 2013



Teresa Pace

In the article below, Mr. Walsh, does an excellent job of describing what a tutorial means to the AEES editorial board. It is a timely article because it also explains why you will find a Volume 28, Issue 8, “Part II” in your mailbox this month in addition to your regular monthly magazine subscription. It is quite exciting to me that this is our *sixth* tutorial supplementing our magazine and we hope our readers find it not only interesting but also an excellent educational reference for the future.

In this month’s magazine issue, you will find a range of articles that emphasize and demonstrate our worldwide dependence on technical diversity. A global solar spectrum campaign is described which involves a spectrometer designed in Zurich. An automatic target cuer that speeds up our brain’s natural ability to interpret and recognize objects by prescreening for specific regions of interest from large amounts of data along with an article describing MIMO SAR radar sensors are both topics of international interest. Of particular fascination to me, perhaps because I have never mastered more than one language, is multilingual speech recognition, of which an algorithm for robust recognition of three languages is described. Finally, we have an article on a software architecture for future Brazilian space missions. Looking through these

articles, I see how technology is a bridge that closes many gaps of diversity; while conversely, diversity aids in the progression of technology. It’s not only an interesting issue but thought provoking on many levels.

It is my sincere hope that you enjoy this issue, Part I, of your magazine as well as your tutorial, Part II.

—Teresa Pace, EIC

What Is a Tutorial?

William P. Walsh with Peter Willett



William Walsh

It is a rare article from which nothing is to be learned, so what do we mean here by tutorial? Basically, there are two kinds of tutorial articles: those that provide a primer on an established topic and those that let us in on the ground floor of something of emerging importance. In addition to this month’s *Systems Magazine*, we are including the next of our occasional series of tutorials.

The first type of tutorial can have a noted expert who has been gracious (and brave) enough to write a field guide about a particular topic. The other sort of tutorial typically involves researchers who have each been laboring on a topic for some years. Within our robust Aerospace and Electronic Systems Society (AEES) technical environment, many of their presentations have been seen and available, and their progress has been followed extensively over time; interest in their



Peter Willett

respective areas is growing markedly, but considering that many readers will not yet be aware of them, most will see it here first.

Both sorts of tutorial articles are very much desired. But we, as an editorial board for both *Systems* and *Transactions*, know that there has been no logical place for them in the AEES until this series was started several years ago. With these tutorials, we hope to continue to give them a home, a welcome, and provide a service to our membership.

We do not intend to publish tutorials on a regular basis, but we hope to deliver them once or twice per year. We need and welcome good, useful tutorial articles (both kinds!) in relevant AEES areas. If you, the reader, can offer a topic of interest and an author to write about it, please contact us. Self-nominations are welcome, and even more ideal is a sugges-

tion of an article that the editor(s) can solicit. All articles will be reviewed in detail. Criteria on which they will be judged include their clarity of presentation, relevance, and likely audience, and, of course, their correctness and scientific merit. As to the mathematical level, the articles in this issue are a good guide: in each case the author has striven to explain complicated topics in simple—well, tutorial—terms. There should be no (or very little) novel material: the home for archival science is the *Transactions Magazine*, and submissions that need to be properly peer reviewed would be rerouted there. Likewise, articles that are interesting and descriptive, but lack significant tutorial content, ought more properly be submitted to the *Systems Magazine*.

As always, let us know what you think, not just about our publication of a tutorial here, but of the magazine in general. We hope that you are enjoying our new look and approach with *Systems* for these past months. Your feedback is vitally important to our success!

On behalf of the *Systems Magazine* Editorial Board,
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Call for Papers IEEE Aerospace and Electronic Systems Magazine



Special Issue on: Selected Techniques of Modern Signal Processing for Remote Sensing

In 2003 the Signal Processing Symposium (SPS) was born. The main goal of this event was to share signal processing knowledge among researchers working in different fields. Now, on the 10th anniversary of this event, the organizers want to share with the wider IEEE AES Society some details of selected techniques that have been successfully applied in modern remote sensing technology. The SPS this year will be held on 5-7 June in Jachranka, Poland (www.ise.pw.edu.pl/SPS). The authors of the best papers presented at the Symposium, addressing recent advances in signal processing methods used in radar technology, remote sensing, passive sensing and application of sparse sensing, will be invited to submit their work to this special issue of the AESS magazine.

Key Topic Areas:

- ▶ Applied Radar Signal Processing and Imaging
- ▶ Novel Solutions in Remote Sensing
- ▶ Passive sensing
- ▶ Application of Sparse Sensing

For information on paper submission, prospective authors should visit http://sysaes.msubmit.net/cgi-bin/main.plex?form_type=do_cat&file_nm=info.htm. Manuscripts should be submitted using the manuscript submission web site for IEEE Aerospace and Electronic Systems Magazine at <http://sysaes.msubmit.net>. Manuscripts will be peer reviewed according to the standard IEEE AES process.

Important Dates

- ▶ Manuscript submission deadline: 30 August 2013
- ▶ First review completed: 15 October 2013
- ▶ Revised manuscript due: 15 November 2013
- ▶ Second review completed: 20 December 2013
- ▶ Final manuscript due: 25 January 2014

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