



April 2013

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The Chair's Corner:

A Happy Spring Fellow IEEE Members -

As promised, here is your monthly reminder about volunteering. We now encourage the formation of **Teams of Outstanding Volunteers**. The teams and their tasks are on the website. Click here to see how you can **help your industry, your community, your IEEE, and yourself**:

<http://sites.ieee.org/ocs/volunteer-opportunities/>

See our **IEEE-OC Section Calendar** [here](#). Bookmark the calendar on your browser tool bar to keep abreast of current IEEE OC events:

<http://sites.ieee.org/ocs/event-calendar/>

Your IEEE GameSIG members have devoted the month of March to getting ready for the **Second Annual IEEE GameSIG Intercollegiate Computer Game Showcase** which will be held beginning at 2:00PM at UCI on Saturday April 27th. **You are all invited**. Bring your parents, grand parents, and your teenage children to cheer for your favorite college at this free event. Last year's party at Chapman University was a blast. Two hours of Fun & Games, followed by two hours of Food, Networking, Recruiting, and Fun & Games. Ya'll come. RSVP here:

<http://gamesig.eventbrite.com>

Our **Aerospace & Electronics Systems Society** (AESS) is presenting an exciting talk on the future of Space Exploration and its effect on our society and economy entitled **Crossing the Threshold: The Case for Increasing Our Exploration of Space**. The lecture will be given by Mr Paul Wieland, P.E, M.E., Author, and former ISS Life Support Systems Engineer. His talk's tagline is: **"The Beginning Is Near"**.

We have also included a link to this year's **OC-AIAA ASAT Conference** at the DoubleTree Club for a few of reasons: firstly – a sample small local OC conference at the DoubleTree Club that we could use as a model for the Section's proposed Center for Multidisciplinary Innovation (CMI) conference in the fall; secondly – to promote our local Aerospace industry; thirdly – as a cross disciplinary networking opportunity for our members; and fourthly – One or more IEEE-OC AESS Chapter members will be speaking – ya'll come.

Business Card-Sized Ads:

This month we are beta testing free business card-sized ads for our members. This is a great opportunity for members to promote their new and small businesses or consulting services by just posting their business cards. Please email qualifying PDF or JPG files (as defined on page 2) to lynx@ieee-oc.org or click here: <mailto:lynx@ieee-oc.org>.

We will be beta testing another new section next month where you the members can post various IEEE Society Calls for Papers (CFPs). If you get CFPs from a society, please extract the useful information, along with a link to the details, and email them to lynx@ieee-oc.org (<mailto:lynx@ieee-oc.org>). It is best if you edit the CFP yourself before submitting it to Lynx since you know best what is appropriate for your own society. Presenting a paper about your work is so beneficial for your industry, your company and your career! Let's give this a go!

All My Best,
Dr Don V Black, Visionary
IEEE-OC Section Chair
IEEE-OC GameSIG Chair
chair (at) ieee-oc.org
(949) 548-1969



Sponsors

We thank the sponsors:



Knobbe Martens Olson Bear –
Hosts OCCN and SSCS Chapter
Meetings
<http://www.knobbe.com>



Western Digital – Provides prizes
and funding for students participating
in design competitions
<http://www.wdc.com>



Netserve Systems – Hosts IEEE
OC Section ExCom Meetings
<http://www.netservesystems.net>



Quicksilver Software – Hosts IEEE
OC GameSIG ExCom Meetings
<http://www.quicksilver.com>



Brandman University – Hosts IEEE
Chapter presentations for up to 128
attendees
<http://www.brandman.edu>



System-on-Chip Conference –
Hosts IEEE Student Design
Competition and Job Fair
<http://www.socconference.com/r>



Mathobotix – Partners with IEEE for
STEM Events
<http://www.mathobotix.com>



Digital Choreographics
Digital ChoreGraphics –
Has hosted IEEE List Servers
since 2002
<http://www.dcgFX.com>

OC IEEE History

I am seeking any source of information regarding the early OC IEEE. I lived and worked in LA County and was active in the LA Section in the IRE Professional Group on Automatic Control, didn't move to OC 'till '65 and wasn't really active in the OC section 'till the early 70s ... so my ignorance runs deep. I really need your help in reconstructing the "early days" of our OC Section.

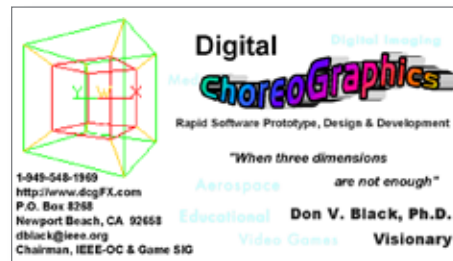
If I've already impulsed you, please respond. If I haven't please take the initiative and shout, "Yes, I remember something ...!" I'll bet you do.

Thanks,
Stan.White@ieee.org

IEEE Member-Owned Business Advertising

Beginning with this issue, the newsletter will include a section featuring the business cards of the businesses owned by IEEE Orange County Section members. The posting policy is as follows:

- 1) Must be a member in good standing (dues paid).
- 2) Active volunteers have priority over non-volunteer members.
- 3) Cards will be posted in alphabetical order.



Planes of Future Past

Advanced Aircraft Designs at Rockwell, Lockheed, RAND, and CRC

April 16, 2013

Daniel P. Raymer, PhD.

AIAA Fellow and President, Conceptual Research Corporation

Noted designer and author Dan Raymer will cover his early involvement in the projects that became the X-31, B-2, F-22, T-45, F-35, and more. Raymer will describe how and why these projects began, and how he became involved in them. Then he'll show his original baseline design concepts and explain how they were created, what was learned from them, and what happened in the end.

This enjoyable talk has been presented numerous times at the EAA AirVenture (Oshkosh) and at several universities. It is fast-paced and funny, and gives an insider's look at the development of a new aircraft concept. The numerous illustrations include original design layouts and rarely-seen artist's concepts.

The 2010 recipient of the AIAA Aircraft Design Award, Dr. Raymer is a recognized expert in the areas of Aerospace Vehicle Design and Configuration Layout, Computer-aided Design Methodologies and Design Education. An AIAA Fellow and recipient of the AIAA Summerfield Book Award, he was named Rockwell Engineer of the Year for his pioneering work in aircraft computer-aided conceptual design.



Raymer is the author of *Aircraft Design: A Conceptual Approach*, *Simplified Aircraft Design for Homebuilders*, and *Living in the Future: The Education and Adventures of an Advanced Aircraft Designer*, from which this presentation was derived. He regularly teaches his Aircraft, UAV, and Spacecraft Conceptual Design Short Courses. He also coded the *RDS^{min}* aircraft design software (Student and Professional versions).

Dr. Raymer is President of Conceptual Research Corporation, and conducts design studies for NASA, AFRL, DARPA, Composite Engineering Inc., and others. Previous positions include Director-Advanced Design with Lockheed, Director-Future Missions at the Aerojet Propulsion Research Institute, and Project Manager-Engineering at Rockwell North American Aviation. He was Head of Air Vehicle Design for X-31 during the conceptual design phases, and was intimately involved in the actual configuration definition. He also consulted with both RAND and CNA during the JAST/JSF concept development phase.



Dr. Raymer received B.S. and M.S. engineering degrees in Astronautics and Aeronautics from Purdue, an MBA from the University of Southern California, and a Doctorate of Engineering (Ph.D.) from the Swedish Royal Institute of Technology (KTH) in the field of Aircraft Multidisciplinary Design Optimization.

Boeing Bldg. 28, near Bolsa and Bolsa Chica, Huntington Beach, CA

Only US persons over 18 can be admitted to the facility.

Pizza and drinks served at 6:00 pm

Presentation at 6:30 pm, Q&A 7:15-7:30 pm

Free for AIAA members pre-registered, \$5 for others

Registration closes Apr. 11 at 5 pm. Register at

<http://events.constantcontact.com/register/event?llr=vitem6fab&oeidk=a07e780e689d63a6364>

**IEEE****GameSIG**
**Intercollegiate
Game Showcase 2013**

*Do You Have
What It Takes?*
**game
making**
skills on fire
**ABOUT THE EVENT:****THE SHOWCASE/AWARDS CEREMONY:**

Student teams from UC Irvine, Cal State Fullerton, Chapman University, Cal Poly Pomona, Westwood College, Laguna College of Art & Design, Santa Ana College and other local colleges will have only 10 grueling minutes each to shock and awe the *judges at our SECOND ANNUAL INTERCOLLEGIATE COMPUTER GAME SHOWCASE! Prizes, recognition, and fame will be awarded!

RECEPTION/JOB FAIR:

All attendees will have the opportunity to get some hands-on time with the games created by the finalists and semi-finalists, enjoy refreshments and visit with recruiters. SO, BRING YOUR RESUME!

**This year's judges include Phil Adam, Founder - Subduedsoftware.com, Justin Lloyd, Founder - Infinite Monkey Factory, Brian Fargo, Founder - inXile, Voldi Way, Founder - Way Forward, Ralph Barbagallo, Founder - Flarb, Feargus Urquhart, Founder - Obsidian, Ed Lu of B612Foundation will be a Theme/Special Award judge, Robert Rose of SpaceX will also be a Theme/Special Award judge*

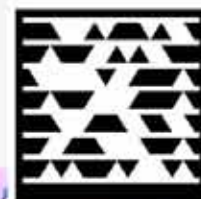
Saturday April 27, 2013

2-4 p.m.
 Finalists pitch & demo their
games, awards presentation
4-6 p.m.
 Reception, job fair, play the
finalists' & semi-finalists' games

University of California, Irvine (UCI)
Donald Bren School of Information and Computer Sciences
Donald Bren Hall 1100
(800) 548-1969

Join the FREE event & cheer for your favorite team!
DUE TO LIMITED SEATING, REGISTRATION IS REQUIRED!

GameSIG.org





Presented by the Orange County Section
Chaired by Mr. Dino Roman, AIAA Associate Fellow

Tenth Annual

AIAA Southern California Aerospace Systems and Technology Conference & Banquet

Saturday May 4, 2013

**Doubletree Club Hotel
Orange County Airport**

7 Hutton Centre Drive
Santa Ana, CA 92707



The AIAA SoCal ASAT Conference brings together seasoned and new engineers, researchers, leaders, managers, and students and provides a forum to exchange ideas, review achievements and discuss the future direction of aerospace in the area. The Orange County Section's Annual Banquet is held in the evening following the conference and recognizes the accomplishments of some of our members.

Conference Keynote Speakers

Mr. George L. Pla, President and CEO, and **Mr. Roberto Ramirez**, Senior Project Manager, Cordoba Corporation, *Space Shuttle Endeavour Transport Project*

AND

Mr. Michael Kisska, X-48C Project Manager, Boeing, *Flight Testing the X-48C - Advancing the Blended Wing Body Concept*

Banquet Speaker

Mr. Robert Zimmerman, Award-winning Science Journalist and Historian, *Predicting the Future of Space Travel, from the Past*

SCHEDULE

8:00 - 8:45 AM	Check-in and continental breakfast
8:45 - 9:00 AM	Welcome/Introductions
9:00 - 10:00 AM	Mr. George L. Pla / Mr. Roberto Ramirez
10:00 - 12:00 PM	breakout sessions
12:00 - 1:30 PM	Luncheon / Networking
1:30 - 2:30 PM	Mr. Michael Kisska
2:30 - 5:00 PM	breakout sessions
5:00 - 6:00 PM	Banquet Check-in / Network
6:00 - 8:30 PM	Banquet / Mr. Robert Zimmerman

Conference Registration

(Incl. breakfast and lunch)
Student: \$50.00 / High School Student: \$20
AIAA Member: \$65.00
Non-Member: \$75.00*

Evening Annual Banquet

Student: \$30.00
AIAA Member: \$35.00
Non-member: \$45.00*

* Free admission to both events for non members with paid AIAA membership application.

FOR A LIST OF PRESENTATIONS AND A MAP:

<http://events.r20.constantcontact.com/register/event?eidk=a07e6ttmllc6ad75fd6&llr=vitem6fab>

PRE-REGISTRATION IS REQUIRED BY 26 APRIL 2013

(Pre-registration is a financial commitment unless cancelled 48 hours prior to the event.)

Register Online:

<http://events.r20.constantcontact.com/register/event?oeidk=a07e6ttmllc6ad75fd6&llr=vitem6fab>

For more information contact:

Dino Roman 714-896-1744

dino.roman@boeing.com



May 21-23, 2013 Space Tech Expo

May 21-23 Space Tech Expo, Long Beach Convention Center

The theme for the 2013 Space Tech Conference is "The Business Case for Space". The conference's program will help business owners identify space supply chain and ecosystem products and services that will generate revenue and growth for their businesses.

Space Tech Expo 2013 will host the free-to-attend Satellite Summit. The Satellite Summit will run alongside the Space Tech Exhibition and Conference and will take place in the heart of the exhibition hall with three days of interactive discussions, expert-led case studies, and networking opportunities with delegates from international governments.

When:

May 21-23

Where:

Long Beach Convention Center

Info & Register: Free pass to Exhibit and Satellite Summit

<http://www.spacetechempo.com/satellite-summit>

IEEE Aerospace & Electronics Systems Society Orange County Chapter (OC-AESS) presents:

IEEE Lecture "Crossing the Threshold: The Case for Increasing Our Exploration of Space"

Speaker: Mr. Paul Wieland, P.E.

Date: Wednesday, May 8, 2013

Time: 6:00PM - Social and Networking

6:30PM - Dinner

7:00PM - Meeting and Talk

Location: Brandman University, 16355 Laguna Canyon Road, Irvine, CA 92618

Cost: Dinner: - \$10

Dinner (Student/Unemployed): - \$5

Presentation Only: - Free

RSVP: kyu@ieee.org

Contact: Dr. Kai-Bor Yu, Chair of IEEE OC-AESS

Abstract:

What does the exploration of space do for society? It is not just about increasing our knowledge of the solar system and universe, though that is important, too. It's also about addressing the challenges that we face as a society and civilization, such as energy supply and resource acquisition. But more immediate concerns can also be addressed, including international security and job creation. Space exploration is maturing to the point where it is possible to increase the number of missions while greatly reducing the cost, which would open up possibilities for greater and more useful discoveries for mankind to be made. The factors that will enable major exploration and development of space are converging and "the beginning is near" for a period of rapid advancements in technology to bring the benefits of space exploration to Earth.

Bio:

Mr. Paul Wieland grew up during the space race era and wanted to be an astronaut or work for NASA in some capacity. By the time he graduated from high school, however, NASA was reducing its workforce. After earning degrees in botany and mechanical engineering, Paul began working for NASA in 1983 as a co-op student and had small roles in the *Hubble* Space Telescope and Spacelab 3 missions, but spent much of his career developing the life support system for the International Space Station. In 1994, his report *Designing for Human Presence in Space: An Introduction to Environmental Control and Life Support Systems* was published as a NASA reference publication (RP-1324). In 2010, his book for the general public, *Crossing the Threshold: Advancing into Space to Benefit the Earth*, was published and in May 2011 it was awarded a gold medal by the Independent Publisher Book Awards, an international competition.



2013



IEEE Broadcast Symposium

9-11 October 2013

San Diego, CA USA

Call for Papers

Final deadline for abstracts:

15 April 2013



Please mark your calendar to attend the **2013 IEEE Broadcast Symposium** to be held in San Diego, CA on 9-11 October 2013 (exact venue TBA). This Symposium is produced by the IEEE Broadcast Technology Society.

The Symposium Committee seeks timely and relevant technical papers relating to all aspects of broadcast technology, in particular on the following topics (**new topics for 2013 shown in RED**):

- | | |
|---|---|
| <ul style="list-style-type: none"> ● Digital radio and television systems: terrestrial, cable, satellite, Internet, wireless ● Mobile DTV systems (all aspects) ● Cellular broadcast technologies ● Streaming delivery of broadcast content ● Non-real time (NRT) broadcast services ● "Second screen" technology and services ● Transmission, propagation, reception, re-distribution of broadcast signals ● AM, FM, and TV transmitter and antenna systems ● Broadcast tests and measurements including: co-site interference practices; prediction, measurements and mitigation ● Cable, satellite interconnect w/ terrestrial broadcast | <ul style="list-style-type: none"> ● Transport stream issues ● Translator issues ● Broadcast audio including: CALM act ● Regulatory issues ● Ancillary services ● Unlicensed device operation in TV white spaces ● Next-gen broadcast platforms including: ATSC 3.0, FoBTV ● Reception issues for digital TV & radio ● ATSC & other broadcast standards developments ● Broadcast spectrum issues – re-packing, sharing ● Broadcast studio design & construction including: IT requirements for broadcast, redundancy & survivability |
|---|---|

Call for Tutorials: proposals for half-day tutorials are also solicited based on the topics listed above.

Call for Panels: proposals are solicited for panels on technology, application, business, and policy-related issues and opportunities for the broadcasting industry.

Prospective presenters are invited to submit extended abstracts of 500-1000 words by e-mail to bts@ieee.org. Please indicate that the abstract is submitted to the *2013 IEEE Broadcast Symposium*, and include the corresponding author's full name and contact information including: affiliation, address, e-mail, and phone number. **Final deadline for abstracts is 15 April 2013.**

For more information about the IEEE Broadcast Technology Society, visit our web site: bts.ieee.org.

The IEEE Orange County Upcoming Events

April 16, 2013

Planes of Future Past: Advanced Aircraft Designs at Rockwell, Lockheed, RAND, and CRC

April 27, 2013

IEEE GameSIG: Intercollegiate Computer Game Showcase

May 4, 2013

AIAA Southern California Aerospace Systems and Technology Conference & Banquet

May 8, 2013

Crossing the Threshold: The Case for Increasing Our Exploration of Space

May 21-23, 2013

Space Tech Expo

Oct 9-11, 2013

2013 IEEE Broadcast Symposium

<http://sites.ieee.org/ocs/>

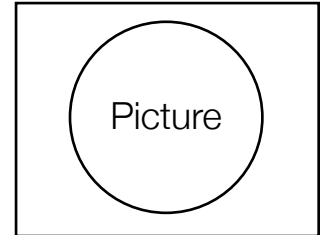
Submitting to the Newsletter

We publish IEEE Orange County Section Newsletter in the beginning of every month. Please provide any Orange County news, engineering conference details, expert views on engineering in Orange County, engineering articles or engineering success story to info@nanomems-research.com no later than the 15th of the month before you want the item to be published. We'll publish the items in the following month. In your e-mail, please enclose your news item between two lines of "+" characters, i.e.:

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News Item Title

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We will be transitioning to a web-based submission model in which your news inputs may be submitted at any time. Information on the website address and logistics will be provided soon. Please stay tuned!

Thank you,

Hector J. De Los Santos, IEEE Orange County Section, Newsletter Editor

Advertising in the Newsletter

Our newsletter now includes an advertising section. For details on how to place your ad, please e-mail us at: info@nanomems-research.com

Advertising Rates

\$1000/full page
\$500/half page
\$250/quarter page

Hector J. De Los Santos,
IEEE Orange County Section
Newsletter Editor

2013 IEEE Orange County Section — Executive Committee

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