

NOVEMBER 2014 NEWSLETTER



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EVENTS

| Tuesday 11 th November 6:30 PM | IEEE ComSoc | Multi-level Inference of Human Motions using Wearable Sensors By Professor Greg Pottie, PhD <u>RSVP Requested:</u> <u>https://meetings.vtools.ieee.org/m/29781</u> Location: Skyworks Conference Room, Newbury Park | |
|--|----------------|--|--|
| Wednesday 19 th November 7 PM | EMBS | The Future of Medical Telepresence Speaker: Tom Kristy, CEO of SupervisionMD Location CLU - Ahmanson Science Building | |
| Wednesday 19 th November 5:30 PM | NACE | Building the First "Steamship" in History by John Laurence Busch based upon his book STEAM COFFIN Captain Moses Rogers and The Steamship <i>Savannah</i> Break the Barrier Location: Channel Islands, Maritime Museum, Oxnard | |
| Monday 24 th November 6:30 PM | OpCom | Operating Committee Meeting 6:30 pm Pickles Deli, Newbury Park | |

MEMBERSHIP NEWS

Hi Everyone!

I want to express my gratitude to all of you who were present at and assisted with our recent BV mixer/speaker event. Thanks to many last minute sign-ups this week for the event we had more people attending than what we had planned for, but more are always welcome! Please send us any comments or feedback on the evening's event – we always strive to do things better!

There were some really good events with very enthusiastic participation last month and we have some nice pictures from these events in the next immediate section.

As on membership, this year in August 2014 we have added 68 members which is 25% more than member who joined us in August 2013. For the Prospective members who will also like to join the IEEE local chapter and get involved, New members who join now not only get membership through the end of 2015, they also get **\$25 off their first year dues**. The discount only applies to first-year dues, and is not applicable toward student membership.

http://www.ieee.org/membership_services/membership/join/mga2013mv.html?utm_cam paign=IEEE+Membership+2014+-+2015+-+Branded

Members: Please be sure to update and share your information at the IEEE Member Portal and set up your IEEE email alias. Please also introduce yourselves at meetings; networking starts here in the IEEE.

> --- Albert Wolfkiel IEEE Buenaventura Section Chair 2014

STILLS from our Recent Events

<u>News – RAS organized "Robotics and Automation in Terrain Model</u> Fabrication" on 10-8-14



<u>News - EMB organized "Health Informatics Impact on Continuum of</u> <u>Care of a Patient by Gary Hutchinsn, CEO of ThelioPulse" on 10-29-14</u>







IEEE BV organized A Special French Evening featuring "News from Neuroscience on The Brain by Nathalie Gosset" on 11-06-14















Contact Pat Jacobs -- 805-579-0630 pat.jacobs@advancedpersonnelprofiles.com →

Quality Director- Medallion Therapeutics (<u>www.medalliontx.com</u>), Valencia This position is responsible for managing the Quality System and associated compliance activities for the design, development and manufacturing of medical devices in compliance with applicable quality and regulatory requirements, including FDA's Quality System Regulation, European Union Medical Device Directive and ISO 13485, ISO 14971 and other applicable standards and regulations.

4 Sr. Quality & Principal Quality Engineer

Medallion Therapeutics (<u>www.medalliontx.com</u>), Valencia

Two positions requiring medical device experience. Experienced with drug delivery devices a plus.

4 Product Manager – Implantables , Bioness (<u>www.bioness.com</u>), Valencia

Experience with medical device marketing. Key strategic partner of the Marketing team responsible for leading the commercial aspects of implantable products. Manage critical processes related to business planning, marketing plans, product training, portfolio management and development, market research. Requires experience working in an operating room or surgical center.

Product Manager – Rehabilitation Technology Bioness (<u>www.bioness.com</u>), Valencia

Experience with medical device marketing. Key strategic partner of the Marketing team responsible for upstream and downstream marketing. Must be a self-starter, able to resolve complex issues in the field and lead cross-functional teams.

Sr. Test Engineer - Alfred Mann Foundation (<u>www.aemf.org</u>),Valencia Conduct integration test for an electronic medical device system. This position will also lead collaboration efforts for requirements analysis and test documentation, including all related Requirements Specification, Design Description, Test Plan and

Test Procedures. Facilitate System Design, System Verification and Validation Strategies in cooperation with other engineering functions. Identify, mitigate and manage technical risk as part of the design oversight process. Provide technical insight to Regulatory/Clinical to support regulatory/clinical strategies.

Contact Abby Hariabedian – 805-388-1711 ext 332 <u>ahairabedian@dex.com</u> →

4 ELECTRICAL ENGINEER

Camarillo company looking for an Engineer to successfully complete tooling projects for electronic assemblies such as wind turbine control systems and computer networks used in the medical equipment industry. Minimum 5 years' experience in test engineering, including designing and setting up of ATEs. Please go to dex.com for more info.

Jobs Opportunities at Naval Surface Warfare Center, Port Hueneme,CA Additional questions can be addressed to Esperanza Arroyo, X6082 or <u>esperanza.arroyo@navy.mil</u>

In FY14 NSWC PHD filled 111 positions (mostly in the last 3 months). They are asking headquarters for permission to fill 301 in FY15 (1Oct2014-30Sep2015). All positions will be posted on USA Jobs.

On Thursday, October 2, 2014, vacancy announcement number NW408XX-05-1225157PP921239 will open for the position of Department Manager, Code L00. The announcement will close on October 16, 2014. The position will be filled as Manager, ND-801/830/854/855-05. The selecting official is Dr. William Luebke. The link to the announcement is below and will work starting tomorrow, October 2, 2014. The website for applications is <u>www.usajobs.gov</u>

Link to the job opportunity

announcement: https://www.usajobs.gov/GetJob/ViewDetails/382431700

Last Month at NSWC 30 positions filled (position titles only as below). 28 of new shipmates will work here at Port Hueneme and the remaining two will work at our Virginia Beach detachment. All have the backgrounds, knowledge, skills, and abilities we need to move our command forward. The titles include as below, many of these jobs will keep opening in the near future till all required positions are filled, so please keep a lookout on http://www.usajobs.gov

- Program Manager
- Systems Analyst
- Supply Technician
- Field Service Supervisor
- Administrator
- Financial Management Analyst
- Budget Analyst
- Mechanical Engineer
- Mechanical Engineer
- Mechanical Engineer

- Aegis Ballistic Missile/Fire Control Technician
- Operations Research Analyst
- Systems Engineer
- Engineer (Electrical)
- Mechanical Engineer
- Senior Training Specialist
- Engineer (Tech Manuals)
- Electronics Technician
- Computer Engineer
- Software Engineer
- Mechanical Engineer
- Resource Advisor
- Aerospace Engineer
- Senior Field Engineer
- Electronic Radar System Specialist
- Electronics Technician
- Technical Engineering Support Analyst
- Financial Technician
- Navy Test Officer
- Contract Administrator



Looking for Academic, Scientific, or Engineering Talent?

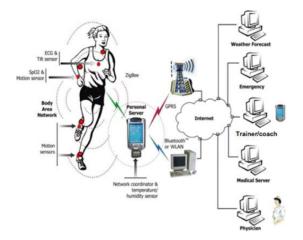
Advertise with the IEEE Buenaventura Section Placement ads are \$25/month and appear in both newsletter and online. Sponsorships available for website and Section. Contact <u>newsletter@ieee-bv.org</u> or see our <u>Ad Placement information</u> to advertise or sponsor the Section.





Date/ Time: Tuesday November 11th, 2014 6:30 PM Pizza & networking 7:00 PM Presentation

- Location: Skyworks Conference Room Newbury Park, CA 91320 (See RSVP/Directions Below)
- Speaker: Professor Greg Pottie, PhD Electrical Engineering Dept, UCLA



Title: Multi-level Inference of Human Motions using Wearable Sensors

Abstract: Recently, many commercial systems have appeared that claim to track daily activities and estimate energy expenditures. Unfortunately, the simplified approaches based on population models are inadequate for medical purposes such as guidance in rehabilitation, monitoring of chronic disease conditions, or for sports applications such as refinement of athletic form. Moreover, the data and algorithms are generally proprietary. Need exists for open systems that enable analysis at multiple levels of abstraction: environmental context, activity, activity segmentation, and trajectory of limbs. Also needed are systems that provide feedback at the correct level of abstraction to the different actors: experts (doctors/coaches), non-professional caregivers, and the patient/athlete. We describe research conducted at the UCLA Wireless Health Institute in how to do this at low cost and at large scale, while taking into account the extreme variability of motion profiles of various classes of patients. This can potentially revolutionize the provision of medical care, leading to better outcomes at lower cost.

Biography: Gregory J. Pottie was born in Wilmington DE and raised in Ottawa, Canada. He received his B.Sc. in Engineering Physics from Queen's University, Kingston, Ontario in 1984, and his M.Eng. and Ph.D. in Electrical Engineering from McMaster University, Hamilton, Ontario, in 1985 and 1988 respectively. From 1989 to 1991 he worked in the transmission research department of Motorola/Codex in Canton MA, with projects related to voice band modems and digital subscriber lines. Since 1991 he has been a faculty member of the UCLA Electrical Engineering Department, serving in vice-chair roles from 1999-2003. From 2003-2009 he was the Associate Dean for Research and Physical Resources of the Henry Samueli School of Engineering and Applied Science, and from 2002-2012 he was deputy director of the NSF funded Center for Embedded Networked Sensing. His research interests include wireless communication systems and sensor networks. His current focus is on modeling, inference, and experimental design in sensor networks with application to wireless health. From 1997 to 1999 he was secretary to the board of governors for the IEEE Information Theory Society. In 1998 he received the Allied Signal Award for outstanding faculty research for UCLA engineering. In 2005 he became a Fellow of the IEEE for contributions to the modeling and applications of sensor networks. In 2009 he received a Fulbright Senior Scholar award. Dr. Pottie is a member of the Bruin Master's Swim Club (butterfly) and the St. Alban's Choir (2nd bass).

Skyworks, Intersection of West Hillcrest Drive and Lawrence Drive, Newbury Park, CA 91320 (not the main building, please use link below to green arrow that pinpoints building)<u>http://maps.google.com/maps?q=34.187542,-</u>118.930994&num=1&t=h&vpsrc=0&ie=UTF8&z=18&iwloc=A

<u>RSVP Requested:</u> <u>https://meetings.vtools.ieee.org/m/29781</u></u>



The Future of Medical Telepresence Tom Kristy, CEO of SupervisionMD

Wednesday, November 19 2014 at 7 PM CLU - Ahmanson Science Building

Telepresence enables group activities and discussions when the participants are not all located in the same place. Medical Telepresence can efficiently and rapidly bring together physicians, clinicians, nurses, sales reps, distributors, and device engineers who engage in live discussions for the purpose of training, mentoring, developing a product and even facilitating the treatment, surgical or not, of a patient. The systems that enable these live two-way video interactions are sophisticated platforms that master data capture, processing, and delivery.



Tom Kristy, SupervisionMD

Thomas Kristy is the CEO of SupervisionMD a company that is known for razor sharp 1920 x 1080 resolution images Telepresence system for surgical setting. Mr. Kristy will discuss the current and future technical opportunities and challenges for broad deployment of Telepresence systems in the medical industry. Our speaker will elaborate on the performance requirements of such systems, the aspects most challenging to manage, the technical tradeoffs, and the breakthroughs that his team at SupervisionMD have made to implement very high resolution imaging with a high speed of data transfer speed despite the bandwidth limitations of internet communications.

Tom Kristy's background is in organic chemistry. He has spent most of his career working with technology in various forms including solar energy systems, semiconductor manufacturing equipment (SEMI) and SaaS software in the area of eLearning for medical applications. For the past four years, his focus has been on developing ultra-low latency video broadcasting systems for telemedicine applications.

| Meeting Site: | California Lutheran University, 100 Ahmanson Science Building, 60 West Olson Road, Thousand Oaks Meetings are free, open to the public | | |
|------------------|---|--|--|
| Dinner: | Available at 6 p.m. for \$10 payable at the door, no RSVP needed. | | |
| Parking: | In general, visitor Parking is no longer permitted before 7 p.m. on Memorial Parkway and adjacent street. However, CLU Public Safety has provided us with parking passes to download and use from the web site, www.ieee-bv-embs.org | | |
| Contact: | Steve Johnson, sfjohnso@ieee.org | | |
| Our Sponsors: | California Lutheran University, IEEE EMB Society, IEEE Buenaventura Section, Amgen Foundation MicroJoining Solutions | | |





Our Section, in cooperation with the Channel Islands Maritime Museum, is proud to bring you this fascinating multi-media presentation

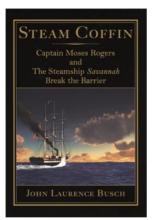
Building the First "Steamship" in History



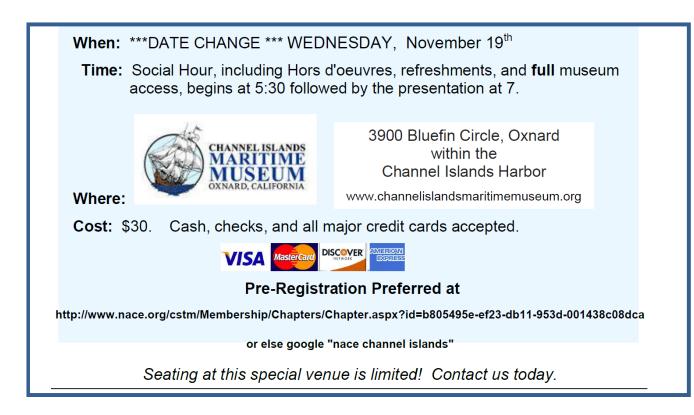
by John Laurence Busch

based upon his book

STEAM COFFIN Captain Moses Rogers and The Steamship Savannah Break the Barrier



Historian and author John Laurence Busch will attempt to re-calibrate your mind before showing why the proposition of making the first crossing of the Atlantic Ocean on a "steamship" was met with a mixture of skepticism and fear. Busch will describe the particular corrosion problems that 1st-generation steam vessel operators and engineers faced, and how they addressed them. He will then describe how Captain Rogers addressed this problem for the first ocean crossing.



Praise for the Presentation:

"You offer what is exceptional in an historical presentation: the reasons 'why' history matters."

-James Mackin, Society for Industrial Archeology

"We have had many, many positive comments from attendees, members and guests alike, about your presentation. The 'word on the street' is very favorable."

- John Norton, Hanson Historical Society

Praise for STEAM COFFIN:

"Busch's supremely readable account...represents the creation of a long-needed missing piece of maritime history... It may properly be termed a page-turner, and is strongly recommended." — (mt) Marine Technology Magazine

"A beautifully written and engaging narrative...John Laurence Busch has made a major contribution to American maritime history with this fine book."

— Naval War College Review

More Background:

In 1807, a brilliant, creative, and controversial American by the name of Robert Fulton declared his intent to build an experimental "steamboat," which would be used to initiate a continuous passenger service between New York City and Albany, New York. With the success of his *North River Steam Boat*, Fulton showed that it was possible to alter artificially both a person's location and the amount of time it took to change it. In so doing, he also broke through the enormous psychological barrier that had existed in people's minds; it was, in fact, possible to overcome Nature to practical effect. It took time for many people to accept Robert Fulton's triumph as the truth.

One man who did not need to be convinced was a sloop captain named Moses Rogers. He had witnessed the first successful runs of the *North River Steam Boat* to Albany, and the experience gave him the fever—steamboat fever. Moses soon became one of the first steamboat captains in history, taking command of one of Fulton's first rivals, the *Phoenix*. In his new profession, Moses learned not only the technicalities of this revolutionary invention, but the peculiarities of a traveling public just getting used to this new mode of transport.

In the years immediately following Fulton's success, running these steamboats on rivers, lakes and bays became a normal and accepted part of American life. But taking such a vessel on a voyage across the ocean was a different proposition altogether. Experienced mariners didn't think it could be done. These early steamboats, they declared, were just too flimsy and unwieldy to withstand the dangers of the deep.

Furthermore, *corrosion* had become an increasingly prominent problem, as steamers ventured into saltier and saltier waters. But Moses Rogers believed it could be done. Combining his knowledge of the old mode of transport (sail) with the new mode of transport (steam), he set out to design a vessel that was capable of overcoming the many dangers of the sea. This craft would be not a steamboat, but a "steamship," the first of its kind.

This presentation will show how Captain Rogers specifically addressed the challenge of corrosion in the design and construction of this revolutionary vessel...nearly two centuries ago!

About the Author:

John Laurence Busch is an independent historian who focuses upon the interaction between humanity and technology, specializing in the first generation of steam-powered vessels. He has devoted years of research to discovering the true story of Captain Moses Rogers and the steamship Savannah. The result is STEAM COFFIN, the most descriptive account of the saga of Captain Moses Rogers and the steamship Savannah ever written.

For additional background, visit <u>www.steamcoffin.com</u>.

About the Museum:

The Channel Islands Maritime Museum features an extraordinary array of magnificent seascape paintings from 17th century Dutch Golden Age Masters, awe-inspiring 18th and 19th century English Romantic painters, a French Impressionist teacher of Monet, and international Modern Masters of the maritime genre.





See a dramatic collection of historic ship models, the largest on the West Coast, including the exquisite work of renowned model builder, Edward Marple, the exotic "bone models" carved out of soup bones by French prisoners of the Napoleonic wars, the great smoke-belching Korean turtle boat and an elaborate Ming Dynasty Treasure Ship built by members of the their dynamic Model Guild.

Come and discover this vibrant cultural venue in the Channel Islands Harbor that celebrates local maritime achievements through contemporary interactive exhibits and displays outstanding examples of centuries of fine art from around the world.



For more information please call 805-218-5145 or email nace.cis@gmail.com



Buenaventura Section and Chapter Info

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