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This Month's Meetings

Tuesday, January 10th: EXCOM Meeting Meeting starts at 5:30PM At TECO Plaza Register online at <u>http://time2meet.com/fwcs-excom/index.html</u> Open to all FWCS Members

Robotics and Automation Society Meeting <u>The Next Meeting is Tuesday ,January 17, 2011</u> Go to the RAS Page of FWCS Website for Latest Info!

PES/IAS Industrial Engineer Seminar Speakers: Cindy Amor and Paul Schnitzler Tuesday January 24, 2012 Time: 11:30 AM to 1:00 PM <u>Details on page 5</u>

> PES/IAS Plasma Therm Tour David Lishan, Director of Marketing Tuesday, February 2, 2012 Time: 6:00PM Details on page 4

Have you renewed your membership? Don't lose benefits!

2012 EEE EXECUTIVE COMMITTEE

FLORIDA WEST COAST SECTION

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This Month...(Editor's Column)

We are starting off the New Year with meetings throughout the month and announcements of events for the coming month. In this issue we have another seminar by Jim Anderson who will fill us in on the intricacies of LinkedIn and social networking. With Facebook at 800 million users and about to go public on the stock market, social networking can't be ignored and LinkedIn is a good place to start for professionals. There is the Plasma Therm tour and a presentation on Industrial Engineering. Finally, the Engineers Week Banquet is being announced for February. I have attended several of these and I have not been disappointed by the Keynote speakers. A lot of planning has gone into this event and it is at a great location. As always there will be lots of photos from the event in upcoming Signal issues (unless you go!).



Plasma Therm Seminar

The Objectives

To learn the fundamentals of plasma etching, plasma reactors, and etching mechanisms, review state-of-the-art etching technologies for deep silicon etching, compound semiconductors, dielectrics, and metals, understand the



fundamentals of endpoint detection and to have Q&A regarding specific plasma etching projects. Faculty, students, local companies, local universities are welcomed to attend

Networking activities include: Continental breakfast and lunch will be provided.

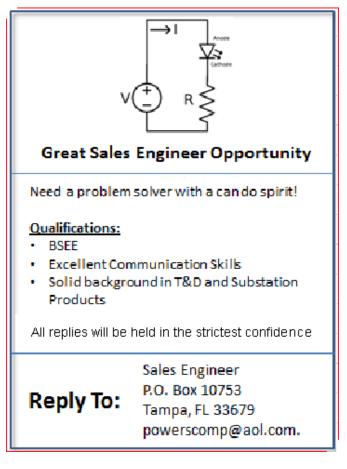


Date: 01/20/2012 Time: 7:30 AM-6:00 PM Location: CUTR 102 Contact: Robert Tufts <u>tufts@usf.edu</u> 813-974-5274

Content

- Vacuum Basics
- Plasma Basics
- Plasma Reactors
- Plasma Etching Mechanisms
- Compound Semiconductor Etching
- Deep Silicon Etching
- Dielectric Etching
- Metal Etching
- Endpoint Basics
- Sample Thermal Management

Presented by: David Lishan Ph.D. Electrical Engineering Chris Johnson B.S. Materials Science and Engineering Advertisment



Signal Newsletter Editor Wanted!

The EXCOM is looking for a new Signal newsletter editor! The current editor is moving on to other things and a replacement is needed. Anyone interested should be able to use Microsoft Word reasonably well. I will show someone how the process works in producing the Signal every month and be available as support. Contact me at <u>rsancz@verizon.net</u> or 813-361-7563 for more information.



Follow IEEE-USA on Social Networking Sites

IEEE-USA has established a presence on <u>Twitter</u>, <u>LinkedIn</u> and <u>Facebook</u> to help U.S. IEEE members follow the organization's activities and keep them apprised of the latest news and events



that are affecting their careers and the profession.

Don't Miss the First EMBS Meeting of 2012!

Date: January 19, 2012 Time: 6:30 PM Topic: Silicon Carbide Biomedical Technology Progress Towards Ironman Presenter: Prof. Stephen E. Saddow, Electrical Engineering Department, Department of Molecular Pharmacology and Physiology, at USF Location: To Be Announced Please watch your email for additional details. To register go to http://time2meet.com/fwcs-emb/index.html

Since its inception in the 1970s, brain-machine-interfaces (BMIs) have held the promise of providing an engineered pathway to restore central and peripheral system function when trauma or disease disrupt signals from the brain to other parts of the body. While impressive demonstrations of this technology have been made over subsequent decades, the lack of a biocompatible semiconductor has prevented BMIs from reaching their full potential. While silicon powers most of the electronics that we use in our everyday life, unfortunately it is not biocompatible and efforts to fool the body by applying biocompatible coatings have all failed in-vivo. At the University of South Florida a team of electrical engineers and neuroscientists have been developing silicon carbide (SiC) semiconductor devices for use in BMIs and other in-vivo biomedical applications. Our group has proven that SiC is indeed biocompatible by showing outstanding in-vivo performance in wild type mouse brains. This lecture will discuss both the state of the art of SiC biotechnology as well as review other biomedical devices such as heart stent coatings, bone prosthetic coatings, and in-vivo sensors

Dr. Saddow is a Professor in the Electrical Engineering Department at USF and was recently appointed to the Department of Molecular Pharmacology and Physiology in the USF College of Medicine, based on the interdisciplinary nature of this work.

His research interests are to develop wide-bandgap semiconductor materials for biomedical applications MEMS/NEMS applications. His group has demonstrated the in-vitro biocompatibility of 3C-SiC to numerous cell lines and lately his research has focused on the central nervous system. His ultimate research objective is to develop smart sensors for harsh environments and biomedical applications based on wide band gap semiconductor materials.

Best Regards, John West EMBS Chair, FWCS IEEE 727-743-2267







Plasma Therm Tour

Date:	Tuesday February 2, 2012
Time:	6:00PM
Speaker:	David Lishan, PhD, Director of Marketing
Location:	10050 16th Street North, St. Petersburg, FL 33716
Cost:	Free of Charge to attend!
RSVP:	Online at: http://time2meet.com/fwcs-pes1/index.html/ (Select Reservations)
	Space limited to the first 20 registrants!!!
Questions:	Tim Doolittle at 813-735-2722 or <u>tdoolittle@fastmail.fm</u>
Questions:	Contact Serge Beauzile at 863-834-6511 or serge.beauzile@lakelandelectric.com



Established in 1975, is a leading provider of advanced plasma processing equipment for the semiconductor industry and related specialty markets.

The company's systems provide critical process steps in the fabrication of devices found in consumer electronics. More specifically, the systems use a variety of configurations to control innovative plasma technology for etching and depositing thin films. The equipment is used in R&D through high volume production in markets addressing solid state lighting, wireless, MEMS, data storage, renewable energy, nanotechnology, and opto-telecommunications. Leading device manufacturers are using Plasma-Therm technology and systems to produce key components for diverse and well known products such as cell phones, hard disk drives and LED lighting. In

addition, the company's Mask Etcher series for photomask production, a cornerstone for the integrated circuit industry, has exceeded technology roadmap milestones for over 15 years.

Plasma-Therm's products have been adopted globally throughout the semiconductor industry for their value of enhancing productivity. Demonstrated production expertise combined with a strong presence at major research institutes and facilities results in a large installed base and secures Plasma-Therm's reputation as a preferred supplier of semiconductor process equipment.

<u>www.plasmatherm.com</u>

IEEE

First-Ever Carbon Management Technology Conference



IEEE-USA is teaming up with seven other engineering societies for the inaugural Carbon Management Conference in Orlando, 7-9 February 2012. The gathering will focus on engineering perspectives on key issues, including technologies, strategies, policies and management systems. Professionals from all engineering disciplines will share expertise on reducing greenhouse gas emissions and adapting to climate change. For more information and

to register for the event, go to http://www.carbonmgmt.org/.





Do you know what an IE can do for you?

Date:	Tuesday, January 24, 2012
Time:	Registration 11:30am-12:00pm, Speaker 1200pm-1:00pm
Speakers:	Cindy Amor TECO – Paul Schnitzler, University Of South Florida
Location:	Lakeland Electric Training Center, Heritage Town Center, 989 East Memorial Blvd.
	Lakeland, FL 33801
Cost:	\$10 Members, \$15 Non-Members, \$5 Students. (Includes Lunch)
RSVP:	Online at: http://time3meet.com/fwcs-pes3/index.html
	Make checks payable to: IEEE FWCS
	Send checks to: John Stankowich, IEEE PES/IAS Treasurer
	2593 Forest Run Court
	Clearwater, FL 33761-3716
	Space limited to the first 30 registrants!!!
	Cancellation must be submitted online 24 Hrs prior to the seminar at the link above
Questions:	Contact Serge Beauzile at 863-834-6511 or serge.beauzile@lakelandelectric.com

You have solid engineering for your products and systems and yet you just know they can be better. You just don't know where to look.

Industrial Engineering was born in the Industrial Revolution, but the development of the profession has possibly outgrown the name. No longer are Industrial Engineers only focused on manufacturing and time studies; they are present in every type of industry and contribute to the overall success within each business. Optimization and doing more with less have always been goals for IE's, but now they apply the theories, tools and techniques used for many years in manufacturing to all facets of running and managing any type of business. Part of being successful in your own business is knowing when to use the right tools at the right time.

We would like to share with you the many tools that Industrial Engineers can bring to the table and that you can then use at the right time for the right purpose

Cindy Amor, Consulting Engineer – Efficiency & Process Improvements. TECO Energy

Cindy Amor has over 25 years of utility experience working in multiple departments throughout Tampa Electric Company. As an Industrial Engineer she has been able to acquire a broad and diverse degree of experiences that have allowed her to contribute to the overall effectiveness of the company. Every role throughout her career has benefited from the use and application of Industrial Engineering tools and concepts. Cindy has worked in the areas of Facility Services, Information Technology and Human Resources. Her current position is now with TECO Energy, or the parent company level, in the Efficiency and Process Improvement department. This role provides Cindy the opportunity to work within all the TECO Energy companies (Tampa Electric, Peoples Gas, Guatemala and Coal) and therefore has a greater impact on total operational excellence.

Cindy earned her Bachelor of Science degree in Industrial Engineering from USF and an MBA from the University of Tampa. She is also a certified Six Sigma Green Belt.

Paul Schnitzler, Faculty, IMSE, College of Engineering, University of South Florida – Change and Creativity

Paul Schnitzler, Ph. D. is a member of the Industrial and Management Systems Engineering department where he teaches engineers to be managers. In his career in industry, he has led successful change resulting in proving that undersea fiber optics would be possible, the development of a EMMY-winning ENG video camera, the introduction of Concurrent Development in a conservative company, and the introduction of fast development in a highly competitive semiconductor market. He follows the well researched and reported methods but has figured out why these methods often fail...and what you can do about it.



Money, Fame, Status! 10 Ways to Use LinkedIn to Get What You Want

Are you ready to tap into the world's largest professional networking site with over 130 million professionals and more than 2 million company profiles in order to move your career forward? No matter if you are looking for your next job, just looking around, or trying to do some professional networking, LinkedIn is the online social networking place that you really need to be. But where should you start? What's the best way to set up a profile in order to get noticed? What should you do after you create an account?

The IEEE's Florida West Coast Section's PACE group is proud to present our very first online seminar: put on your fluffy bunny slippers, grab a cup of hot coffee and cozy up to your PC and join us. We're going to be covering a lot of material during this seminar including:

1. Optimize your profile to be found when people go looking for someone with your skills -- in both LinkedIn searches and on search engines.

2. Add hundreds of contacts to your network with one simple technique.

3. Become known as a world-wide expert in your field so that companies seek you out.

4. Learn how to follow companies you are interested in.

5. Join in conversations and establish yourself as an expert so that people will seek you out to connect with.

6. Discover how to develop long-lasting business relationships by joining the right LinkedIn groups.

7. A secret system for getting through to hiring managers and recruiters when you are looking for your next job.

8. The 3 steps that you need to take for networking success on LinkedIn...and what things to avoid at all costs.

9. The simple secret hardly any job hunter uses that can blow away your competition.

10. And much more!

Did I mention that you can attend wearing your fluffy bunny slippers? This is easily a \$200 value -- you can end up paying much more. However, for this one night only, we're going to give you a ton of value and free access to a recording of the entire session after it's done! How much would you pay now? Here's all it's going to cost you: \$17 for IEEE members, \$25 for non-members and \$10 for students. You can find out more about this seminar and sign up online at: http://goo.gl/nNt3n



ENGINEERING TODAY ... FOR A GREENER TOMORROW

TAMPA BAY'S ENGINEERS WEEK BANQUET

February 24, 2012

A La Carte Event Pavilion, 4050 Dana Shores Dr, Tampa

We are pleased to announce that the 2012 Tampa Bay Engineers Week Banquet will be Friday February 24 at the A La Carte Event Pavilion. Please join us at this elegant gathering to celebrate the 62nd National Engineers Week and recognize the many contributions made to society by those in the engineering profession. The evening will feature fine dining, our guest speaker Ms. Kathy Caldwell (2011 ASCE National Chair), and an exhibition room for vendors and attendee networking. We are expecting four hundred or more attendees including 250-300 engineers of all disciplines, allowing plenty of opportunities to meet with friends and colleagues.

In keeping with the spirit of the event, awards will be given to accomplished engineers in each engineering discipline, to outstanding young engineers in each discipline, and to local university students who excel in engineering related studies. We'll also be honoring select local high school educators with the Lignell Award for their outstanding instruction in the areas of Science, Technology, Engineering, and Mathematics (STEM). We hope that you will help make this special event one of the most successful of the year.

Engineering Today... For A Greener Tomorrow www.tbewb.org

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2012 IEEE International Electric Vehicle Conference

March 4-8, 2012 at TD Convention Center and Clemson University International Center for Automotive Research

The first IEEE International Electric Vehicle Conference provides a unique cross-organizational platform to exchange information among thought leaders of the fast-growing electric mobility ecosystem and to discuss new trends in technology, engineering, standards and deployment aspects on a global scale. IEVC is a venue for electrical vehicle designers, component and infrastructure system developers, manufacturers, utility experts, corporate executives, technical analysts, researchers, educators, entrepreneurs, venture capitalists, legislators, regulators and standardization experts to share a joint interest in the transformation of the transportation industry via electrification. For more information go to http://electricvehicle.ieee.org/





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January 2012 Calendar of Events (For more information see P. 1) *inside this Signal...*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10 EXCOM Meeting at TECO Hall, see page 1 for details	11	12	13	14
15	16	17 RAS Meeting, see page 1 for details	18	19 EMBS Meeting, see page 3 for details	20 Plasma Therm Seminar, see page 2 for details	21
22	23	24 IE Seminar, see page 5 for details	25	26	27	28
29	30	31	1	2	3	4