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Letter from the Editors

Flipping through my IEEE Transactions on Professional Communication from June 2012 (I frequently fall behind in my periodical readings. I blame it on all 135 of my students this semester—do they really need all that feedback on their papers?), I came across a research article on intercultural communication. The theories about intercultural communication grounding this research are not new to me: in my line of work, we have to know a great deal not only about how English organizes and encodes information, but how the languages of our students do so as well. Linguists (and ESL teachers) have held for quite some time that the language a person uses can affect how he views and interacts with the world exactly because languages put ideas together differently and toward different purposes (see the Sapir-Whorf Hypothesis in Lustig and Koester, 2003). But what does this mean to the engineering community--at least, what does it mean that we put time and energy into studying it?

The study I mention here, by my branch of the IEEE family (I lay personal claim to it since ours is a select group: at last count there were about 7 members of the Professional Communication Society in Orange County), focused on persuasive newsletter writing and whether those hoping to communicate across cultures (here British and Dutch) should alter their own preferred styles in order to better meet the needs of the “foreign” reader. The results were surprisingly counter-intuitive: there were no significant persuasiveness issues seen between the styles, so the authors suggested that perhaps altering communication preferences isn’t always necessary to communicate the purpose effectively.

Now, the study was between two European language groups, and it focused on a business format so common that intercultural preferences may have softened over the years; however, it does give me pause. I work daily with students struggling to understand, and be understood in, a language with a concept of readability and comprehensibility sometimes subtly and sometimes drastically different from their own. It’s not just the language itself, either. The kinesic, or body language, cues also cause all kinds of misunderstandings when my students try to communicate with native speakers of American English. How can it be that communicative accommodations aren’t necessary between cultures? Or is it that certain fields have become communicatively cohesive over the years--that is to say, the agreed upon communication paradigms trump personal, cultural preferences because the common culture is the format? Like in speaking “engineer.”

Disciplines, by necessity and affinity, create their own communication paradigms, which often directly reflect the cultural needs of their members. For instance, critical thinking isn’t universal. American schools boast they teach students “critical thinking”, but what concept of it or kind? Jones (2007) compared what passed for critical thinking in economics and history and found

Submitting to the Newsletter

We publish the Lynx newsletter at 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 stories to lynx@ieee-oc.org no later than the 15th, and we will publish the items in the following month's newsletter.

Thank You,
Lynx Editors

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that what each discipline believed to be critical or proper thinking was firmly entrenched in the purpose each field saw their work as having in the greater scheme of things.

So too, the purpose to which thinking is put in engineering, which consequently must be communicated, shapes how the engineering community prefers information to be organized and formatted. And yet intercultural studies are a big part of my Society's work specifically because engineers are truly a global community. They are influenced by their home cultures and languages as much as by the culture and language they inherit when they become members of the engineering community.

I plan to share a little every month or so on the research being done in the field of professional communications, and what the findings can mean to engineers, to businesses, and for clearer communication all around (it's what I've got to offer the newsletter, aside from editing things other people hand me). I'll even throw in a bit of what I have learned from teaching business writing, critical thinking, and non-native English speaking engineers for almost a decade. In the end, it all comes down to the purpose of our work in the greater scheme of things: what are the ways and processes by which we come to our informed decisions, and how can we can communicate those decisions to others according to their own ways and processes? Culture--country, society, field or discipline, it's going to be a fun ride.

Helen, Lynx Editor

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UC Irvine IEEE Student Branch 2012-2013 Report

Introduction

UC Irvine IEEE offers engineering students many opportunities to develop their personalities and their professional skills. The student-led UC Irvine IEEE helps students learn about the engineering industry through our info sessions, and develop their professional expertise through our leadership training and workshops. **We have 20 official IEEE student members and 60 non-official members this year, making us the largest club for electrical engineering students at UCI.**

This year, UC Irvine IEEE achieved many firsts in our chapter's history: **hosting our first Student Professional Awareness Conference (S-PAC) to ever reach 100+ attendees, representing UC Irvine for the first time at the Micromouse Competition at UCSD, and throwing the largest video gaming party ever in the history of UC Irvine.** In addition to these large events, we established a weekly workshop series and also hosted several social events for our members. Whether offering opportunities for hands-on experience or singing out of tune at the karaoke lounge, UCI IEEE provides a way for students to grow professionally and bond with each other out of the classroom.



[Santa Monica Officer Training] There's no I in team but there is in IEEE!

Summary of Events Held in 2012-2013

Winter and Spring quarters saw the beginning of our weekly Arduino and Raspberry Pi workshops for freshmen and sophomores to get hands on experience and be better prepared for future internships or projects.

In our weekly Arduino workshops, organized by our Workshop Coordinator Jordan Linford, we helped students do simple projects to learn about microcontrollers and how to use them.

William Hillhouse, our secretary, also led workshops that taught students about the Raspberry Pi. Topics included overclocking the board, and students practiced programming some Hello-world projects.

In addition to these two, we also provided some basic hardware workshops to help freshmen and sophomores practice working with the lab equipment and get hands-on experience with the hardware. **By providing opportunities for students to build a strong foundation, we hope to make our student organization one of the go-to-places for UCI student engineers looking to build projects that allow them to apply their theoretical knowledge.**



[2013 S-PAC] The IEEE board is one big family!

Big Bear Retreat & Santa Monica Officer Training (July 2012)

Before we even started the school year, we were planning what we wanted to achieve. Rather than do our planning at school, we decided to bring back the Big Bear retreats that our organization used to hold

[Santa Monica Officer Training] Using teamwork to stay on balance!





[Big Bear Officer Retreat]
We literally bonded in this human knot exercise.

years ago. This was led by our very own ex-president from 5 years ago, Satoshi Suga, who led us in various leadership exercises that taught us our strengths and weaknesses.

Welcome Week Boothing (September 2012)

After we had planned our whole year, we started off strong by showing the students what IEEE can offer them. In addition to giving away IEEE pens and stickers, we advertised the benefits of student membership with the help of our resident scout trooper and fellow officer, Anthony Tran.



UCI IEEE Officers show off our t-shirts and our storm trooper mascot.



Nothing like Star Wars and IEEE to attract students!

First General Meeting (September 2012)

Apparently Anthony's Star Wars costume worked too well, and we filled the room to capacity at our first general meeting of the year! We had over 100 students attend and learn about our new mentorship program, Bits and Bytes.

Bits and Bytes Mentorship Program (September 2012)

This year, we decided to reach out to freshmen and sophomores through our mentorship program, Bits and Bytes. When we were freshmen, we did not have anyone to guide us, so we started a mentorship program that paired senior EE students with freshmen and sophomores. We had over 30 students participate this year, and we hope to get 60 participants next year!



Building towers out of paper to teach teamwork!

Rigol Info Session (October 2012)

We hosted a hands-on info session for Rigol Instruments. The company representative brought lab equipment, including oscilloscopes, and gave a very useful explanation of each instrument. We all learned things about the equipment that we did not know, as well as the history of each instrument.



We had a great time learning about the history of the oscilloscope.

IEEEExtreme 24 Hour Programming Contest (October 2012)

We held the first IEEEExtreme contest at UCI this year and had 20 participants. Our students worked through the night with a lot of food and caffeine, and our teams got high scores.

Middle School Kids Visit UCI (April 2013)

As part of our effort to reach out to local schools, we brought middle school kids from the area to UCI to learn about majors in STEM and Electrical Engineering. We organized some simple workshops for the visit. These workshops included activities like building a flash-light circuit and demonstrating physics by pouring goo onto speakers.



(Top) Students see a robot for the first time. (Left) One of the officers looks over the shoulder of a student working on a circuit. (Right) Goo on a subwoofer shows off Newtonian fluids in a fun way! (Below) UCI IEEE is inspiring kids to study STEM.



S-PAC (May 2012)

Our May 2012 S-PAC had 63 attendees. Our guest speaker was Professor Chen Tsai, who discussed his research on nano-scale photonics. We also had several other professors attend, such as Professor Green and Professor Healey, who spoke to students about attending graduate school.



[S-PAC 2012] Professor Chen Tsai speaks to students about his research.

S-PAC (May 2013)

One of our goals for this year was to double the attendees at our annual S-PAC from 60 to 120. To do this, our External Vice President, Robert Rodriguez, and our Industrial Relations team contacted over



Our largest group photo ever!

100 companies that we had never reached out to before, including Blizzard. We received a great deal of support from our alumni and former board members, who were eager to share their experiences as UCI IEEE officers. We ended up with a total of 133 attendees: 93 students and 40 company representatives from fields, like computer game science, never before represented at S-PAC.

We had two speakers. The first, ACM distinguished speaker Albert Wong, spoke on start-up versus larger companies. We also had Professor Swindlehurst talk about radar from his research on wireless systems.

As mentioned before, this was the largest S-PAC ever in UCI's history, selling out all our student tickets. Next year we hope to make the S-PAC even larger!

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We thank the sponsors:



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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 you have any information, please respond. Take the initiative and shout, "Yes, I remember something!" I'll bet you do.

Thanks,
Stan White
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The IEEE Orange County Upcoming Events

June 8, 2013

“What Businesses and Engineers
Need to Know About Recent
Changes in U.S. Patent Law”

June 12, 2013

IEEE Distinguished Lecture:
“Backside Lunar Observatory”

June 22, 2013

“Patents and the Consultant/
Entrepreneur”

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

**IEEE’s OC Entrepreneurs’ Network (OCEN) & IEEE’s OC Solid-State
Circuits Society (SSCS) Present:**

What Businesses and Engineers Need to Know About Recent Changes in U.S. Patent Law

Speaker:

Mr. Scott Raevsky, Partner, Knobbe Martens

Date:

Saturday, June 8, 2013

Abstract:

Recently, the America Invents Act, the most important patent legislation to be implemented since 1952, has gone into full effect. The provisions of this law will significantly impact businesses and engineers who rely on patents to protect their investments in technology. This talk will give an overview of the major changes to the law and will also present strategies for using the new law to effectively procure patents and defend against third party patents.

Bio:

Mr. Scott Raevsky received his B.S. (2002) in Electrical Engineering and J.D. (2006) of Law from Brigham Young University in Provo, Utah. Since 2006, he has been a patent attorney at Knobbe Martens in Irvine, California, and since 2012, has been a partner with the firm. Mr. Raevsky’s practice focuses exclusively on intellectual property, including strategic patent procurement, counseling on patent infringement and validity issues, and intellectual property due diligence. Mr. Raevsky represents a variety of companies in such areas as information technology management, electronic commerce and personalization, mobile applications, and electronic medical systems. Mr. Raevsky also has extensive experience with digital signal processing, with clients in the fields of audio processing, patient monitoring, and radar.

Schedule:

- 9:30 AM - Registration & Networking
- 10:00 AM - Presentation
- 11:30 AM - Q&A and Networking

Cost:

Free for all IEEE members, students, engineers in transition, technologists, as well as those looking to join IEEE & SSCS in the future.

Space is limited, please RSVP: ieee.oc.sscs.rsvp@gmail.com

Send questions to Farhad Mafie, IEEE-OC OCEN & SSCS Chairman:
farhadmafie@gmail.com

IEEE Aerospace & Electronics Systems Society (AEES) Presents

IEEE Distinguished Lecture: "Backside Lunar Observatory"

Speaker:

Dr. Myron Kayton, Life Fellow of IEEE

Date:

Wednesday, June 12, 2013

Abstract:

Dr. Myron Kayton will talk about the benefits of establishing a backside lunar observatory. Thus far, all manned operations have been on the front side of the Moon, in direct radio contact with Earth. A backside observatory would be shielded from radio and optic emissions from Earth by the mass of the Moon, permitting the detection of fainter emissions from distant stars. He will talk about the properties of the Moon and its orbit, the advantages of a backside observatory, and the means by which a robotic observatory can be set up and maintained on the backside of the Moon. He will also talk about methods for sending data to Earth from the backside.

Bio:

Dr. Kayton has written about backside observatories for nearly ten years. He is an alumnus of Harvard, MIT, and Cooper Union. He specializes in vehicle electronics. He was Deputy Manager of Lunar Module Guidance and Control at NASA during Apollo. He has also worked as a system engineer on Spacelab, Space Shuttle, Space Tug avionics, and several aircraft, among many other projects. He is a Life Fellow of IEEE and winner of several engineering awards. He is retired from Kayton Engineering Company, a company he founded in 1981.

Schedule:

- 6:00 PM - Social and Networking
- 6:30 PM - Dinner
- 7:00 PM - Meeting and Presentation



Location:

Doubletree Club Hotel: 7 Hutton Centre Drive, Santa Ana, CA 92707

Cost:

- Dinner - \$30
- Dinner (Student/Unemployed) - \$20
- Presentation Only - Free

RSVP and Questions:

Dr. Padman Nagenthiram, Treasurer of IEEE OC-AESS
(padman.nagenthiram@gmail.com)

IEEE Consultants' Network Presents

Patents and the Consultant/Entrepreneur

Date:

Saturday, June 22, 2013

The Orange County Consultants' Network (OCCN) and the Los Angeles Area Consultants' Network (LAACN) will feature two presenters: attorney Lily Li and patent agent Bob Spaulding. They will share their expertise and experience on pursuing patents on innovations.

Abstract:

The 2011 America Invents Act and recent Supreme Court decisions have resulted in some big changes to patent law. In the wake of these reforms, inventors need to be more diligent than ever in their pre-filing strategies to protect their ideas. Ms. Li will provide an overview of the changes to patent law, and address common issues that inventors now face concerning patentability, inadvertent disclosures, prior art, ownership, and post-issuance review. Bob Spaulding will discuss the functions of a patent agent in preparing patent applications and the ways they assist in the critical patent search process.

Speakers:

Lily Li is an attorney that specializes in startup representation and IP strategies, particularly for companies in the high-tech and clean-tech fields. Previously, she served as patent strategist and director of marketing and business development for IP Checkups, a boutique patent analytics and consulting firm in Berkeley, CA. While at IP Checkups, she helped companies align their IP strategies with their business objectives through patent portfolio management, business intelligence, and patent valuation services. Ms. Li has a J.D. from Duke University School of Law and a B.A. in Political Economy, magna cum laude, from Williams College. She is a member of the State Bar of California as well as of the Orange County Bar Association.

Bob Spaulding, in addition to being a member of OCCN, has ten years experience as a patent agent. Prior to becoming a patent agent, he was president of Quality Communications, Inc. for 12 years, gained engineering experience at Lear-Siegler, and served as a Radar Technician in the Air Force. He has an M.A. in Applied Mathematics from Cal State Fullerton, and an M.S. in Applied Mathematics and an M.S. in Financial Engineering from Claremont Graduate University.

Schedule:

- 10:00 AM - Introductions & Presentations
- 12:00 PM - Lunch & Networking

Location:

Room 321, Engineering (E) Building, Cal State University, Fullerton, CA 98231

Cost:

Free with reservations. Send reservations or questions to masenten@pacbell.net.

Parking:

Saturday parking is free. Enter from Nutwood and take Folino Drive north to Parking Lot E. See maps at <http://www.fullerton.edu/campusmap/> for more detail.

Check out the IEEE-USA Consultants' website at www.ieeeusa.org/business.

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