ACCE News

Newsletter of the American College of Clinical Engineering

Membership Renewal

If you have not already done so, please renew your ACCE membership on-line at www.accenet.org by clicking on the yellow highlighted link at the top of the homepage and logging in. You may alternately renew by mailing a check or money order to :

ACCE

5200 Butler Pike

Plymouth Meeting, PA 19462

Al Levenson, Secretariat

Secretariat@accenet.org

In this Issue:

President's Message: Welcome Mario

Mario Castaneda,

As I assume my new role as President of ACCE, I want to begin by expressing my appreciation to my many mentors within ACCE over the years, to Izabella Gieras for recruiting me into ACCE back in 2003, and to Jennifer Jackson and the Board, from whom I have the privilege of now leading an organization distinguished with a great brand, a wealth of membership talent, and with the potential to be an increasingly significant player in 21st century health care delivery.

A quick scan of the world of 2010 reveals a multitude of challenges – not only in healthcare, but in other areas that dominate our national discussions, often competing with rational discussion of our national healthcare needs. These arenas of competing discourse are as diverse as national security and foreign policy, higher education funding, energy policy, population migration, unemployment, and credibility of political leadership. These interacting challenges are forcing many institutions across the social spectrum to review their missions, their goals and strategies, their priorities, their partnerships, and their resources. The models on which many institutions and professions have relied for decades are facing fundamental uncertainties that increasingly affect our resources for planning and managing medical technologies effectively. This is occurring precisely at the time when the technical foundations themselves are going through fundamental changes, with the shift from standalone to networked devices and systems. Plotting our course through this turbulent environment will require

The Future of Clinical Engineering

The University of Connecticut, Clinical Engineering Masters degree students, Class of 2011: <u>Front row</u> – Kathleen Grunder-Providence VA, Elena Simoncini-Boston VA, Helen Cheong-Middlesex Hospital, Allie Paquette-Baystate Health Center, Rodrigo Campora-UCONN Health Center, Tasneem Pishori-Baystate Health Center, <u>Second Row</u> – David Pillittere-West Haven VA, Jonathan Riscica-UMass Medical Center, Jessica Bruno-West Haven VA, Pratyusha Mattegunta-UMass Medical Center, Sean Frenette-Hartford Hospital, Catherine Weitenbeck- Brigham and Women's, Natalia Tabares-Mass General Hospital,; <u>Back Row</u> - Frank Painter-CE Program Director, Scott Kopp – Hartford Hospital, Jared Ruckman-UCONN Health Center, Mark Galiette-UCONN Health Center, Joe Ouellette-West Haven VA, Greg John Son-St. Francis Hospital (story on page 2)

UCONN CE Intern Program

The University of Connecticut has 18 clinical engineering graduate students in the internship program this year. Eleven hospitals in Southern New England take one or more of these students in paid clinical engineering positions as they are completing their two year MS BME degree. They also take four CE courses taught by Frank Painter and either 4 or 6 additional BME courses depending if they do a thesis. A photo and the resumes of the second year graduating students can be found on www.ceeducation.org. The graduating clinical engineers will have the equivalent of at least one year of full time clinical engineering experience when they graduate. They will be available for interviews in February and March and able to take CE positions after graduation in May.

Frank Painter

FRPainter@earthlink.net

Clinical Engineering Certification Study Guide

The American College of Clinical Engineering has prepared a Study Guide for the Clinical Engineering Certification examination offered by the Healthcare Technology Certification Commission established under the ACCE Healthcare Technology Foundation. The Study Guide is available through ACCE for $30. To order a copy of the Guide, please make out a check payable to ACCE and send to:

ACCE Secretariat
5200 Butler Pike
Plymouth Meeting, PA 19462

Or e-mail *Secretariat@ACCEnet.org* and include credit card information (name on card, type of card, card number, and expiration date). Applications are now being accepted for the **November 2011** exam. Applications and the applicant handbook can be found at *www.ACCEnet.org/certification*

The ACCE Study Guide was written by an independent group of clinical engineers not associated with the exam process.

Certification in Clinical Engineering (CCE) Exam

ACCE
AMERICAN COLLEGE OF CLINICAL ENGINEERING

Exam Date   November 5, 2011

US Application Deadline   September 10, 2011
For those taking the exam within the US & Canada

International Application Deadline   August 13, 2011
For those taking the exam outside the US & Canada

Visit www.acce-htf.org/certification/ for handbook, application and more information.

Email secretariat@acce-htf.org if you have any questions.

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ACCE News

President's Message: ACCE, CE/IT and the Future

our best thinking and dedication to the higher calling of healthcare for all.

As we reflect on the past year, we can take some encouragement from the recent passage of national healthcare legislation -- the most ambitious since the 1960's -- that will extend coverage (albeit gradually) to 34 million Americans in the coming years and help healthcare providers build the new infrastructures needed to support electronic medical records, interoperable devices, and outcomes-based medical services. As a testament to the innovation needed in this area, our colleague, Julian Goldman MD recently won a unique, 5–year $11 million NIH grant to develop clinical intranet specifications, along the lines set out in ASTM F-2761, for ICE (the "Integrated Clinical Environment"). Such advances, if sustained, will significantly transform the landscape for healthcare services nationwide and strengthen the role that clinical engineers play in planning and managing the system lifecycle of the next generation of clinical technologies. As more and more of our devices and systems become networked, interoperable, and linked to electronic medical records and health information exchanges, we will face some radically new challenges in replacing systems that have heretofore been isolated and, in many cases, proprietary. So we are not only facing changes in underlying technologies but changes in business practices and professional culture and jurisdictions as well.

Rather than thinking primarily in terms of devices, we will need to cultivate new knowledge and skills related to clinical systems, and systems-of-systems. We may even need to promote new fields of academic and professional study along the lines of "health systemics," to insure that there will always be "horizontal intelligence" along the clinical system lifecycle that is just as sophisticated, and organizationally valued, as vertical specialties have been. This will provide us with truly exciting opportunities for forming new partnerships and collaborations that will be necessary to address complex challenges that exceed the capacities of traditional disciplines, professions, and organizations.

Part of the new clinical systems will necessarily be connected in nature, due to the growing role of medical informatics; so we all will need to become conversant with the specialized vocabularies, roles, standards, best practices, and business processes that our IT colleagues have developed over the decades to manage their systems across the IT lifecycle. Likewise, IT colleagues will need to become familiar with the differences inherent in clinical settings and processes, where operational realities may be very different from what they're accustomed to in other IT-driven worlds, such as banking, telecom, insurance, manufacturing, and office systems management. A lot of learning and respect for differences will need to be cultivated as we form new partnerships, so that the next generation of clinical and informational technologies will synch up coherently and provide not only the best care possible for our patients, but likewise afford the best user experience possible for our clinicians and other stakeholders across the healthcare continuum.

In the coming months, we plan to provide forums to discuss and renew our vision for clinical engineering in America, and to reaffirm of sense of collective stewardship of this vital professional field. We will need to provide initiative and leadership as healthcare organizations of all stripes struggle to adapt to increasingly complex technical, regulatory, financial, and marketplace dynamics. We will need to be increasingly seen as the guarantors of patient safety (ISO 80001) as more and more devices become networked, and be known as advocates for our clinical providers as new workflows are tested and deployed to improve clinical outcomes.

We will need your help and ingenuity to strengthen our foundations as an organization and as a profession in numerous areas: infrastructure, Secretariat, revenue strategy, membership growth and retention, billable projects, educational programs, grants, foundations, financial support, content expertise, updated body of knowledge, publications, symposia, speakers bureau, workshops, relationship management, industry relations (vendors, manufacturers) government relations (regulators, ARRA), professional relations (AMA, RSNA, ACHCE, ASHE, ECRI Institute, NFPC), academia (private, public), trade organizations (HIMSS, AAMI), international relations (organizations, industry, US based/funded) -- in short something for everybody to get involved in!

As we review our organizational and professional vision, set our strategic goals and priorities, I want to invite and encourage your active involvement and creativity. Within the coming months, we will ask all our committees to document their missions, and establish goals and priorities. We will then consolidate them into a work plan for 2011 that will serve as our compass for the coming year.

In "The Structure of Scientific Revolutions," Thomas Kuhn set out a radically new model of how paradigms of scientific thought and methodology evolve over time, often abruptly. His insights have educated generations of scientists and historians about the transitory nature of official orthodoxies of thought -- such as the Ptolemaic cosmology, and about how transformational thinking is percolating just off-stage, waiting for enough anomalies to accumulate so that the new paradigm can take the place of the old one. We are in the midst of a comparable revolution in healthcare technologies and healthcare policy that will require from us our brightest and most creative efforts in the months and years to come. I feel fortunate to be in the company of such talented and devoted colleagues, and am looking forward to working closely with you all as we heat up the crucible to forge our new paradigm for healthcare in the 21st century.

Mario Castaneda, President ACCE

Mario.Castaneda@kp.org

Advocacy Focus – Meet ACCE Members Val and Al

Actually, that's Valerie Yoder and Alyson Phillips, part of the new wave of younger clinical engineers who have joined ACCE. Their mentor, Izabella Gieras calls them "Val and Al."

ACCE leadership wants ACCE to grow and to add more value to the profession. We focus this article on Val and Al. Why? Because they have been doing something important to help grow ACCE – both in terms of new members and helping to expand ACCE's horizons. They have a lot of energy and fresh ideas. Maybe you have some as well, and want to help.

Who are they and what have they done? First Val …

Valerie Yoder has been a Clinical Engineer for Beaumont Services Company since 2007 supporting critical care, pediatrics and the emergency department at William Beaumont Hospital, Royal Oak, MI. She has worked with The Joint Commission and FDA to ensure patient safety with regard to medical devices, particularly patient alarms. Formerly, she worked for six years as a systems engineer in the defense industry, developing products for the U.S. military. She also has a BSE in Mechanical Engineering from the University of Michigan, a Master's degree in Biomedical Engineering from Wayne State University, and is an ASQ Certified Six Sigma Black Belt (facilitating healthcare process improvements through teams).

Valerie grew up in Michigan, where she was initially interested in becoming a clinician, but was progressively drawn to engineering. Now she gets to participate in both areas; noting her current work is "her dream job, and she gets to learn something new every day." Valerie enjoys working with a lot of smart people, and seeing devices make a difference.

Then Al …

Alyson Phillips is a Process Improvement Analyst for the Johns Hopkins University Applied Physics Laboratory. She previously worked as a Clinical Engineer at Beaumont Services Company supporting the surgical services and anesthesia departments at William Beaumont Hospital. Her expertise is medical device planning and process improvement. She holds a BSE in Biomedical Engineering from Michigan Technological University, and is an ASQ Certified Six Sigma Black Belt. Alyson is currently working toward her MBA.

In 2009, with Izabella's encouragement, Valerie joined the ACCE Advocacy Committee. At the June ACCE meeting that year in Baltimore, she brought Alyson with her to meet available committee members, including Jon Blasingame and Tom Judd. As a result, they became involved in the following project.

Jon was leading an initial effort to reach out to HIMSS 2010 participants in Atlanta in March to promote ACCE and the Clinical Engineering profession. The goal and methodology:

Actively engage CIOs and solicit their input regarding needs and the potential fit for clinical engineers within IT.

The team developed a 10-page packet of information for handout to CIOs that included information about ACCE, CE Organizational Structures, job descriptions for Clinical Systems Engineers and Clinical Systems Project Managers, a 2009 CE-IT position salary survey, references from 5 IT departments that had hired CEs, (eg, Rick Hampton at Partners), and links to key technical references, e.g., HITSP TN905 on Device Connectivity, & a HIMSS guide for Integrating Medical Devices.

Here is Val's report:

At HIMSS this year, our team, led by Jon B, put together a packet for potential CIO's and IT Managers geared toward promoting Clinical Engineering as a profession within IT. Al, Jon and I were approached by several CIO's and IT managers, as well as other clinical/biomedical engineers at the ACCE booth, where we answered questions primarily focusing on the following: What is a Clinical Engineer? , What is ACCE?, What can ACCE do for me? , Does ACCE offer education workshops/sessions that can train non-clinical staff about medical tehnology?, How do Clinical Engineers fit into an IT department?

Valerie Yoder

Val and Al at HIMSS 2010 in Atlanta

Alyson Phillips

Val and Al continued, and Advocacy at HIMSS 2011

I found that several CIO's and IT managers were very interested in our "Hiring a Clinical Engineer" handbook. It is my hope that they will consider hiring clinical engineers to help with issues such as device integration with EMR. This would aid in growing clinical engineering as a profession. For the past two years I have co-taught a course in clinical engineering at Wayne State University, and several of my students are interesting in finding a

job as a clinical engineer, so I have a vested interest in growing the profession.

Overall, my experience at HIMSS was very rewarding. I feel honored to have been asked to work on this initiative, and feel that all of the ACCE folks were very welcoming. In order to help younger ACCE members get more actively involved, I think its important to "take them under our wings", as Jon did so graciously with Alyson and I. People

would be surprised how easy it is to get involved.

I was first introduced to ACCE three years ago by Izabella Gieras, my former manager (Beaumont Services Company, Michigan). She was very influential in my Clinical Engineering experience, and as I've talked to others, I can tell that she has influenced many. I think we should follow her example in bringing in new members by welcoming them, introducing them to others, and encouraging them to become active by joining committees that interest them (as she did for me when she encouraged me to join the advocacy committee). I would like to thank all of the ACCE members that welcomed me, especially Izabella, Jennifer Jackson, Jon, Tom Judd, and Paul Sherman.

The Advocacy Committee has expanded plans for this year at HIMSS 2011 in February in Orlando. The team will use their time at the HIMSS 2011 meeting to: Target specific exhibitors at HIMSS to present information regarding ACCE; Invite specific attendees to come to the ACCE reception, breakfast, etc; and Follow-up post HIMSS. The goal at HIMS-2011 is to increase ACCE corporate/institutional membership by 10 companies (300 members in 2011) More on all this later.

Tom Judd and the rest of the ACCE Advocacy Committee

advocacychair@accenet.org

11th AIIC National Clinical Engineering Conference in Turin Italy

The 11th AIIC National Conference: "*Innovation, Technological Government and Security in Healthcare: Competency, Experience and Sustainability*" *will* take place in Turin, from 23 to 25 February of 2011.

During the conference, we'll talk about activities of Clinical Engineering Services in reference to national and political background and we'll highlight examples of productivity and efficiency of Clinical Engineering Service.

The major topics addressed will be Radiotherapy and Nuclear Magnetic Resonance, "State of the Art", safe planning and technological evolution as well as planning, information technology and e-health like HIS, RIS, PACS and LIS.

The attendance of international clinical engineers, and successful national managers is forecasted for the first day of the conference to advise and to give a boost to younger engineers.

In addition, we're looking for medical professionals like pharmacists, radiologists and medical attendants, like nurses, considering that these professional figures increasingly are in need of clinical engineering services because of the technical and managerial strategies provided to hospitals and service companies.

Jennifer Jackson

jljackson@accenet.org

Wanted: Articles for ACCE News

Are you interested in practicing your writing skills? Do you desire to see your name and perspective in print? Do you have some "editorial comments" that you wish to "get off your chest"? Do you have some commentary, good or bad, about Clinical Engineering working with IT?

The ACCE News is looking for some good quality articles of interest to Clinical Engineers. Articles can be on any

subject pertinent to the Clinical Engineering profession. Length should be from approximately 500 to 1000 words. Editorial and topic assistance is available from the editors. If interested, contact co-editors Ted Cohen or Ismael Cordero at

Theodore.cohen@ucdmc.ucdavis.edu

or

ismael.cordero@orbis.org

The View from the Penalty Box

About the only nice thing about this time of year in New England is that the elections are over. No more political commercials that insult our intelligence, no more listening to Yankee fans spout off on how great their team is, and best of all the hockey season is back.

It seems that no matter who is in charge in the government one branch or department does not seem to know what another branch or department is doing. Recently there was an article on a section of the Department of Agriculture promoting cheese and paying $12 million for commercials for one of the big pizza chains selling a 4 cheese pizza. Another section of the same department was pushing for less fat in the diets of the US populace. It seems that cheese now contributes up to 70% of the fat in the average persons diet here in the US.

Even in the town I live in the politicians are having brain cramps. For 3 years, as part of the Industrial Development Board we work on getting grants to bring a municipal sewer line to our industrial park. One of the boards we worked with was the Water and Sewer Board. In the last week of October the project was finished with all the effected roads repaved. In the first week of November the Water and Sewer Board issued a call for proposals to replace the water mains on five of the streets that were just repaved. Why they did not do the project at the same time the streets were torn up is a question that will probably never get a good answer, unless someone's relative owns a paving company.

In another article recently there was the report that one of the major drug manufacturers was fined over 700 million dollars for putting out drugs that were bad. The FDA, the Consumer Protection Agency, and the Health and Human Services Department did not discover the problem but it was one of the employees of the drug company that "blew the whistle" and was awarded $79 million for doing so. Question where did the rest of the fine go? I am sure none of the fine made its way back to the people that purchased the bad drug. And how many of them were harmed?

In the same article it talked about the FDA not inspecting off-shore drug manufacturers mentioning that it would take them something like 8 years just to inspect the manufactures in India and over 18 years to inspect those in China. We have a major problem here in the US in that a huge percentage of our drugs are made offshore and many of the factories are not inspected nor are the products tested. Maybe we need a very simple law passed — only two lines long — that will tick off the lawyers as it reads "All drugs must comply with ISO 9000 standards for quality. Any company importing or selling non approved drugs shall have each board member of the importing and distributing company fined $1,000,000.00 for each infraction". That should reduce the problem.

In reading articles in various publications it seems that networking medical devices is finally starting to happen. As of yet I have not seen any stating that the network is working and all users are happy with the results. This has been a "coming soon" since the late 1980's and to me it is doubtful that it will ever happen unless the designs become simple and don't try to do everything at once. They need to be added to but not all at once. Let the users and support people become comfortable with the systems before doing more. Sometime we technical people forget that the patient is the most important item in any network. And the patient must be protected at all times.

In sports of all levels the concussion is getting a lot of interest and press. While people think about football and hockey players as the most typical recipients of head injuries the new reports that basketball is about to be the new leader in head injuries. When I played hockey and football at competitive levels the amount of padding and helmets was much less, and we did not seem to have all the brain injuries that we now do. Maybe with all the protection that the present- day athletes have they and the coaches become less concerned with learning to tackle or check in a safe manner and just "lead with your head" on tackles or checks. We might fall under a similar mind-set that "technology can solve anything instead of technology applied <u>correctly</u> can solve anything". Instead of fines or suspensions for the "head hunters" maybe they should be required to play without a helmet, or face mask or a cup. If that happens I bet the injuries will go down.
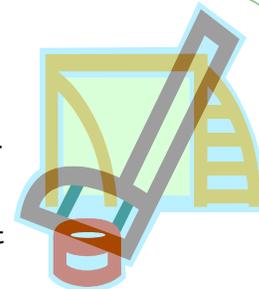
Have a great holiday season and always remember that we do our work to help people live longer and better lives not to make our paper work and reports. Protect the patient at all times by using technology at its best.

Dave Harrington

dave@sbttech.com

New Secretariat

The ACCE Board of Directors is delighted to announce that Suly Chi has accepted the position of ACCE Secretariat, effective January 1, 2011.

Suly Chi has been the managing partner of a technical consulting and supply chain business for over 15 years. Prior to starting this business, she worked as a research engineer for the Brazilian national telecommunications company's research center. She holds a MSc degree in Systems Engineering from Boston University and an Electrical Engineers degree from University of Sao Paulo, Brazil.

Al, Julio Huerta, and Jennifer Jacskon have been working closely with Suly in her transition, with Al recently completing an intensive 2-day training and transfer of information.

The entire organization thanks Al for his service. Suly certainly has big shoes to fill as Al steps down from the role after several years of dedicated service to the organization. He has served diligently as the face of ACCE and we are looking forward to his contributions as a volunteer.

Suly, welcome aboard! We are genuinely looking forward to working with you!

Jennifer Jackson

jljackson@accenet.org

Perspectives from ECRI Institute: The Status of Clinical Engineering in Rwanda

In November, Rob Maliff, Director of the ECRI Institute's Applied Solutions Group and Tim Ritter, a Health Devices Senior Project Engineer for ECRI Institute, traveled to Rwanda to assess the medical equipment maintenance program in place within Ministry of Health (MOH) facilities. In-country activities consisted of meetings with MOH personnel, data collection and review, site visits, interviews with administrators and key clinicians, and discussions with the technical staff at the MOH's Central Maintenance Workshop. Following completion of the assessment, the project calls for providing technical assistance with the following: developing an inventory of biomedical equipment in all MOH facilities; implementing a national clinical maintenance management system; ensuring that IPM procedures and intervals are appropriate; decreasing equipment downtime; selecting and procuring equipment and service contracts and expanding and upgrading BMET training.

The Republic of Rwanda is slightly smaller than the state of Maryland and is landlocked between Tanzania and the Democratic Republic of the Congo. With a population of just over 11 million, it is the most densely populated country in Africa. Between April and July 1994, more than a million Rwandese people were killed by its genocidal regime. Other population facts include: the median age is 18 years; 43% of the population is under 15, only 2.5% is over 65; life expectancy at birth is approximately 57; the fertility rate is 5 children born per woman; population growth rate is 2.9%; the average amount of schooling is 9 years; and 70% of the population can read and write.

Although it is just below the equator, the country's minimum altitude of 3,000 feet provides a temperate climate and there are two rainy seasons. Agricultural products include coffee, tea, bananas, beans, and pyrethrum (an insecticide made from chrysanthemums). Industrial products include cement, furniture, shoes, textiles, and soap. Although residential electrical service is very limited outside Kigali, the capital city, school children are receiving solar-powered laptops and there is a plan to provide nationwide Wi-Fi by 2012!

Remarkably, 12% of Rwanda's 2010 GDP is being spent on healthcare (versus 2.9% on defense). However, the quality of healthcare is generally low. There is a shortage of medical staff and some drugs. One of 5 children dies before age 5, frequently from malaria and the adult HIV/AIDS prevalence rate is 3%.

A large number of medical devices do not work due to the lack of service technicians, repair parts, and/or accessories. Hospitals only have one or two technicians who are not only responsible for biomedical equipment but who must also support generators, laundry equipment, sterilizers, and the water system; there are no facilities engineers. Many district hospitals don't have a reliable water system and use free-standing fixtures with a small tank of water for handwashing. Ministry of health (MOH) healthcare facilities include: a national reference laboratory; a national blood transfusion center; a semi-private hospital and a university hospital in Kigali; a second university hospital; 40 district hospitals and 400 health centers

Rwanda has many Clinical Engineering challenges. Currently, there is no centralized equipment database to support equipment planning and maintenance activities. MOH wants the inventory to include all capital assets, not just medical equipment at each of its facilities. The status of the equipment is also to be assessed at the time of the inventory.

Obtaining accessories and repair parts is much more difficult because there is no equipment standardization and service manuals are either unavailable or in the wrong language. Equipment is frequently purchased for a hospital via bundled tenders which combine unrelated devices (e.g., anesthesia units, centrifuges, and infant incubators). The tenders don't require service manuals or consider the test equipment and training that will be needed.

Donated equipment is another obstacle to equipment standardization and adds to the country's maintenance burden as it often does not work when received; sometimes it is simply incompatible with a 220 VAC/50 Hz power supply. The MOH should adopt WHO *Guidelines for Health Care Equipment Donations* and apply them to the acceptance of donated equipment. The guidelines, issued in 2000, have reportedly been reformatted and are in the process of being reissued.

New devices are put into service without acceptance inspections. This is always a concern but even more so because of recent MOH equipment purchases from unknown Chinese, Indian, and Korean manufacturers.

Lastly, technicians are being asked to maintain both biomedical equipment and hospital infrastructure and there is no ongoing program for BMET training in the country. Although Engineering World Health has been providing an outstanding training program for existing hospital technicians, MOH needs to ensure the future supply of BMETs with a sustainable, full-time training program. It will also have to budget for and hire technicians to manage its facilities.

Lots of challenges – but we believe that the MOH intends and is equipped to meet these challenges to improving the Rwandan healthcare system.

Tim Ritter, ECRI Institute Senior Project Engineer

T.Ritter@ecri.org

Rob Maliff trying out a handwashing device outside a delivery room.

US-Peruvian Partnership Supports CE Development

As Luis Vilcahuamán, Director – Biomedical Engineering Masters program at Pontificia Universidad Catolica del Peru (PUCP) wrote in the **Clinical Engineering Handbook** (*J. Dyro, editor*), activities related to clinical engineering, namely medical equipment maintenance and biomedical technology education, date back to the 1980's. A new era began in Peru when Luis and Health Economist Rossana Rivas of PUCP formed CENGETS Health Technopole to develop clinical engineering and health technology management in Peru. PAHO-sponsored Advanced Clinical Engineering Workshops were held in Lima in 2002 and 2007. Through the work of ACCE members Mario Castaneda, Tom Judd, Frank Painter, Antonio Hernandez, Ismael Cordero, and Tobey Clark, follow-up activities and visits added to the development. CENGETS was awarded the ACCE/ORBIS 2010 International Award.

Through the sponsorship of ORBIS International, Ismael Cordero and Tobey Clark travelled to Lima November 15-19 to meet with the CENGETS team who has started a clinical engineering program at the National Institute of Maternal and Perinatal Care (INMP). About 50 babies are born each day in this public hospital which has a large NICU to handle a variety of neonatal issues. With oversight by CENGETS leaders, engineers Eduardo Romero, Dustin Paz and Jaime Luis are providing services focusing on equipment and vendor management for 800 items, purchase consultation, recall resolution, and technical support to clinical staff. Dustin, Jaime and four other PUCP engineers completed a five month clinical engineering internship at the Technical Services Partnership (TSP), a clinical engineering program at the University of Vermont.

Meetings were held with Dr. Julio Portella, executive director, hospital clinicians and staff, and the CENGETS team to determine the progress of the program, successes and challenges. A hospital tour revealed a high level of technology in the NICU, but with challenges such as incubators from eight different manufacturers from seven different countries. The successes were shown by the high value that Dr. Portella and

L-R: Patricia Ramirez, Dustin Paz, Alonso Agapito, and Jaime Luis, PUCP students who completed CE internships in Vermont, and Luis Vilcahuamán, CENGETS Director/PUCP BME faculty, outside the Unit of Health Technology Management at INMP.

other hospital staff have for CENGETS clinical engineering and a dramatic improvement in the percentage of equipment available for patient care – from 45% before CENGETS to 70% after. Challenges include: CENGETS's lack of capital equipment – biomedical safety and test devices, computers, and other assets, many vendor contracts, the lack of a true CMMS, limited informational resources, and current hospital and national policies.

One challenge was addressed with the donation of a CMMS, **HEMS**, by EQ2, Inc. of Burlington, VT. During the visit, software was loaded on a dedicated server at PUCP and set up to allow use by CENGETS staff in Peruvian hospitals. Jim Smith, EQ2 President, provided a three year plan for implementation and comprehensive remote support as part of the donation.

The NICU at National Institute of Maternal and Perinatal Care (INMP) in Lima Peru

EMPLOYMENT OPPORTUNITY

The ORBIS Flying Eye Hospital (FEH) is a unique mobile teaching and operating facility on board a DC-10 jet aircraft that travels to developing countries worldwide to share the gift of sight. Our Flying Eye Hospital staff travel up to 45 weeks per year to countries such as Peru, Dominican Republic, Syria, Niger, Nigeria, Uganda, China, Cambodia, Indonesia, Vietnam, Laos and India.

Healthcare Technology Trainer

The Healthcare Technology (HT) Trainer plans, designs, and implements training programs for biomedical engineers, clinical engineers, biomedical equipment technicians and other hospital personnel who participate in FEH programs around the world. He/she also works with the Biomedical Engineer to set-up, calibrate, maintain, and repair the medical and office equipment on board the aircraft and to direct ORBIS team members in the proper use of these tools. As a participant in the ORBIS MD-10 Team, he/she will advise the team on the biomedical specifications of the new Flying Eye Hospital.

This position requires up to 45 weeks of worldwide travel per year, mostly to developing countries and between trips the FEH staff members work from home.

ORBIS welcome applicants who meet the following profile:

→ Bachelors Degree or equivalent degree in Biomedical Engineering, Electrical Engineering, or Mechanical Engineering. Master's degree in relevant field highly desirable.

→ Minimum 4 years engineering work experience a hospital environment.

→ Demonstrated expertise in Clinical Engineering and/or Healthcare Technology Management. This includes: (1) Proven in-depth familiarity with different types of equipment and modern health care technology management practices. (2) operating knowledge of computerized medical equipment management systems, quality assurance and technology planning systems, and (3) the ability to demonstrate repairs and maintenance of medical equipment. Previous experience with ophthalmic equipment is a plus.

→ Hands-on training and teaching skills and the ability to apply adult and participatory learning methods. Extensive training delivery experience highly preferred.

→ Prior international work experience desirable.

→ Excellent interpersonal, communication, and diplomacy skills and the ability to mentor and teach others.

→ Solid analytical and problem solving skills with attention to detail.

→ Team oriented work style, with a proactive, open-minded, and flexible approach.

→ The ability to function effectively in a demanding, fast-paced and constantly changing work environment.

→ Oral and written fluency in English – working knowledge of a second language is a plus.

→ Ability to lift equipment weighing up to 50 lbs.

→ Ability to travel to developing countries up to 80% of the time. This includes having no significant disqualifying factors that would preclude approval of entry visas in the countries on the FEH travel schedule.

For more information about ORBIS and this employment opportunity, please visit our website: www.orbis.org.

To apply, email your resume or C.V. and cover letter to HR@orbis.org

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Peru continued

(Continued from page 8)

Medical device regulation in Peru is limited with DIGIMED, the FDA of Peru, focusing primarily on drugs and consumables. A positive development is the start of a healthcare technology assessment program at the Ministry of Health which includes CENGETS as a member.

A visit was also made to the National Institute for Ophthalmology where CENGETS looks to expand clinical engineering activities. The institute has a broad array of specialized and general medical devices. Challenges here included strong vendor dependency, EMI with sensitive recording from a large, central antenna system, and the recent renovation of the surgical suite which revealed many shortcomings.

Other meetings were held at PUCP with Marcial Rubio Correa, President of PUCP, and engineering faculty, and students in the Master's BME program. Additional visits with Zarela Esther Solis Vasquez, Vice Minister of Health, and Ramon Granados Torano, liaison at the Pan American Health Organization – Lima office showed the strong connections that CENGETS has to health leaders in Peru.

Future activities look to provide guidance, support and resources to further develop CENGETS for success in Peru.

Tobey Clark

Tobey.Clark@ITS.UVM.EDU

ACCE Advocacy Awards - Call For Nominations

Dear ACCE Friends:

On behalf of the ACCE Board, the ACCE Advocacy Committee is pleased to note the following awards and winners. The 2011 ACCE Award Reception is on Monday, February 21, 2011 at the HIMSS/ACCE meeting in Orlando.

Please take time to nominate worthy colleagues today or contact students to submit their papers. Just email recommended individual(s), justification(s), and or papers to advocacychair@accenet.org.

Thank you,

Jim Welch, Vice President

Award: Lifetime Achievement Award
Award Criteria: This award is the highest award given by ACCE. It will be given to an individual based on life long accomplishments and contributions to the clinical engineering profession.

2005	George Johnston
2006	Marv Shepard
2008	David Harrington & Ted Cohen
2009	William Hyman
2010	Antonio hernandez

Award: International Clinical Engineering Award

Award Criteria: The award will be presented to one deserving international engineer who has advanced health technology management in their country to improve quality, service, and affordability. The individual would typically be recognized by their country's health leaders or global organizations through leadership roles in their country's national and or activities in the region.

2008	Adriana Velazquez
2009	Andrei Issakov
2010	Saide Jorge Calil

Award: Marv Shepherd Patient Safety Award
Award Criteria: The award will be given to an individual who has excelled in the "safety" area related to the clinical engineering field. For example, a national investigator of accidents, an inventor of a safety device, or an author of books on medical device hazards, etc. This is a joint Award between ACCE and the ACCE Healthcare Technology Foundation.

2002	Leslie Geddes
2003	Mark Bruley
2004	Jeffrey Cooper
2005	Bryanne Patail
2006	Leonard Klebanov & Larry Fennigkoh
2007	Malcolm Ridgway
2008	Jim Wear & Matt Baretich
2008	David Paperman
2009	Les Atles

Award: ACCE Challenge Award
Award Criteria: The award will be given to an individual who is not presently an ACCE member, but is eligible for membership, for his/her achievements in the field of medical technology within the clinical engineering (CE) field, for example; an individual who has contributed to the design of a "safe" environment or shown significant activities in technology management and assessment.

2002	L.Lkebanov & J Czap
2003	Luis Cornejo & Sophia Zikherman
2005	Carolyn Mahoney & John Reis
2006	Naida Grunde & Mike Doron
2008	Denise Korniewicz
2009	Michael Fraai
2010	George Martin

Award: Tom O'Dea Advocacy Award
Award Criteria: The award will be given to an individual who has written articles, given presentations, or led efforts that have advanced the field of CE – particularly in promoting the profession to people in other related fields.

2002	Tom O'Dea
2003	Steve Grimes, John Hughes
2005	Joe Dyro
2006	Elliott Sloane & Ray Zambuto
2007	Julie Kirst
2008	Nancy Pressly
2009	Guruprasad Madhavan
2010	Pat Lynch

Award: Professional Achievement in Technology Award/ Professional Development Award
Award Criteria: The award will be given to an individual for his/her contributions to the CE profession of a professional or technical nature, such as research or development of a new technique or product, a paper of significance on a technical issue, or 'trailblazing' work in a new application of clinical engineering.

2002	Joe Bronzino
2003	Malcolm Ridgway
2005	Steve Grimes
2006	Matt Baretich
2007	Todd Cooper
2008	Frank Painter
2009	Julian Goldman
2010	Gary Evans

Award: Professional Achievement in Management Award/ Managerial Excellence Award
Award Criteria: The award will be given to an individual for his/her contributions to the CE profession of a managerial nature, such as a paper of significance, solving of a problem or issue for the profession, or the application of new techniques to CE with measurable positive results.

2002	Kenneth Maddock
2004	Pat Lynch
2005	Manny Furst
2007	Richard Congdon
2008	Tobey Clark & Ismael Cordero
2009	Marc Bateman
2010	Caroline Campbell

Award: Student Paper Competition
Award Criteria: The award will be given to an individual currently a student in a CE or related graduate program that wrote a paper that contributes significantly to the body of knowledge in CE.

2003	Kristi Hinner
2005	Brandi Spencer
2006	Mary Fazio
2008	Raquel Lopez
2009	Danielle McGeary
2010	Sharareh Taghipour

Award: ACCE/ORBIS International ACEW Award

Award Criteria: This is a new Award in 2010 created by ORBIS www.orbis.org and ACCE, given to the organization demonstrating significant improvements in national health technology management (HTM) structure/outcomes since ACCE and partners conducted Advanced Clinical Engineering Workshops (ACEW) in their countries.

2010	PUCP/CENGETS, Peru

AAMI

ASSOCIATION FOR THE ADVANCEMENT
OF MEDICAL INSTRUMENTATION

www.aami.org

HORIZONS SERIES
2011 CALL FOR PAPERS

AAMI's award-winning *Horizons* publications, mailed twice each year to AAMI members, provide in-depth, practical articles on specific topics. In 2011, AAMI will develop and publish two editions of *Horizons*:

ALARM SYSTEMS

Medical alarm systems warn of danger by alerting caregivers to critical medical information. They also frequently malfunction or are turned off, ignored, or unheard, earning a top spot on lists of the most frequent and serious problems seen with devices. How can the safety and effectiveness of alarms be improved?

Articles on all topics related to alarm systems are invited, including:

- Problems frequently encountered
- Industry and standards efforts to improve alarms
- The importance of distributed alarms
- Design approaches to improve alarms
- Provider approaches to minimize problems
- The regulatory/accreditation environment
- Alarm fatigue, reducing false alarms
- Improving screen alerts
- The need for different but universal sounds
- Case studies, model programs, and lessons learned

Abstracts due: December 30
Full papers due: February 1
Approximate mail date: May/June 2011

NETWORK MANAGEMENT

Hospitals are facing unprecedented challenges managing their wired and wireless networks. Device makers are struggling to provide products that work in a wide range of environments. How can they ensure that their networks and products are secure, reliable, cost-effective, and positioned for future success?

Articles on all topics related to network management are invited, including:

- IEC 80001: impacts, lessons learned, and more
- Wireless spectrum management
- Need for clinical engineering/IT collaboration
- Managing alarms on a network
- Network failure causes and contingency planning
- Connectivity and electronic medical records
- Interoperability issues
- The regulatory environment
- Network security and privacy issues
- Barcoding, unique device identifiers, distributed antenna systems, RFID, and other key technologies
- Case studies, model programs, and lessons learned

Abstracts due: February 15
Full papers due: April 1
Approximate mail date: September/October 2011

TO SUBMIT AN ABSTRACT
Send a brief description of your idea (250 words or less) by the deadline to Jill Williams at jwilliams@aami.org.

AUTHOR GUIDELINES
Horizons articles typically range from 1,500 to 3,000 words. Full guidelines are available at http://www.aami.org/publications/horizons/AuthorGuidelines.pdf.

Email Jill Williams at jwilliams@aami.org or call 703-253-8297.

Secretariat Services

The Foundation is in the process of looking to recruit a Secretariat replacement. We are looking to fill this role by December 2010. Most of the work involved is with the Certification program and averages out to be around 15 hours per month. What a great way to stay connected with Foundation activities plus make a little money. Please contact Jennifer Ott, secretary@acce-htf.org, if you are interested.

ACCE's 2010-2011 Educational Teleconference Series

The ACCE Education Committee is pleased to offer three teleconference series for its 2010-2011 program:

IT for Clinical Engineering Series

Date	Title
2-Sep, 2010	Medical Devices and US Healthcare Reform
21-Oct, 2010	PACS Administration
4-Nov, 2010	Networking Basics
2-Dec, 2010	Networking Basics 2: Wireless
6-Jan, 2011	CE-IT: New Job Opportunities
3-Feb, 2011	ISO 80001-1
3-Mar, 2011	RFID
14-Apr, 2011	Home Health
5-May, 2011	HL7 interfacing
2-Jun, 2011	IHE PCD

Healthcare Technology Management Series

Session Date	Session Title
16-Sep, 2010	Real Life Risk Management
21-Oct, 2010	PACS Administration
18-Nov, 2010	Incorporating Standards into Your Practice
16-Dec, 2010	Clinical Engineers Can Make Healthcare Safer
20-Jan, 2011	New PM Paradigms
3-Feb, 2011	ISO 80001
17-Mar, 2011	Budgeting and Finance in Healthcare Technology
14-Apr, 2011	Technology for Home Health
19-May, 2011	Negotiating Service Contracts
16-Jun, 2011	Staffing for Performance Excellence

ISO 80001-1 Series

Session Date	Session Title
April 28, 2011	Regulatory Perspective
July 14, 2011	Working with Vendors
July 28, 2011	What Can Be Learned from ISO 14971
August 4, 2011	Implementation Strategies: Case Study 1
August 18, 2011	Implementation Strategies: Case Study 2

The teleconferences are held each month at 12 Noon Eastern Time (9:00AM Pacific Time etc). Please refer to the schedule below for the scheduled dates. Unless otherwise noted, the teleconferences are one hour long; typically a 45-50 minute presentation followed by 10-15 minutes of Q and A. Registrants will receive the call-in number and presentation material prior to each session.

For ACCE members, the cost of each session is $150 per site. For non-members the cost of each teleconference is $195 per site. This allows up to four participants from each site using one phone line. Each additional participant will cost $10. If nine teleconferences are purchased the tenth one is free.

A complete 10-session series is $1,350 for ACCE members and $1,755.50 for non-members.

If the *IT for CE* and *HTM* series are purchased together it will cost $2,040 for members and $2,652 for non-members.

Teleconference CDs are available approximately 1 week after the teleconference for $50 for registered Teleconference Attendees or $150 for non attendees by credit card or check on the Educational Offerings page of the ACCE Mall. To order by check please contact: Secretariat@ACCEnet.org. Reference materials, if available, can be found on the Publications and reference tab under Reference Material.

To download the registration form go to:

http://accenet.org/downloads/TCon_Order_Form.doc

Special ACCE Membership Discount for new applicants only.

Buy a 10 session series at $1395 and receive 25% off your first year of ACCE membership.

For each applicant:

- Complete the ACCE membership application

- Send in all application materials and a check for $45 (reduced membership fee)

Write **ACCE Teleconference Series** at the top of the application. Applications will be reviewed by the Membership Committee and Board of Directors using criteria outlined in the ACCE By-laws. Applicants will be individually notified of acceptance by email or by letter.

ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

Journal of Clinical Engineering –

Call for Papers

The Journal of Clinical Engineering, which prints the ACCE News in each issue, is interested in papers from you. If you have an urge to write, and good clinical engineering activities or thoughts to share, please consider JCE as one of your outlets. One type of article not seen in a while is the Department Overview which presents how your department is structured and how it performs its functions. Shorter "Perspective" pieces are also welcome. You can discuss manuscript ideas with fellow member William Hyman, who is one of the editors of JCE. He can be reached at w-hyman@tamu.edu. Completed manuscripts can be sent to William or Michael Leven-Epstein at lecomm1@aol.com.

Calendar

ACCE Teleconferences:

see page 11

Other Events:

February 23-25, 2011

11th AIIC National Clinical Engineering Conference
Turin, Italy (see page 5)

February 20-24, 2011

HIMSS 2011 Conference

Orlando, Florida

June 25-27, 2011

AAMI 2011 Conference

San Antonio, Texas

ACCE Mission

1. To establish a standard of competence and to promote excellence in Clinical Engineering Practice

2. To promote safe and effective application of Science and Technology to patient care

3. To define the body of knowledge on which the profession is based

4. To represent the professional interests of Clinical Engineers

We are on the Web:

www.accenet.org