



ACCE News

Newsletter of the American College of Clinical Engineering

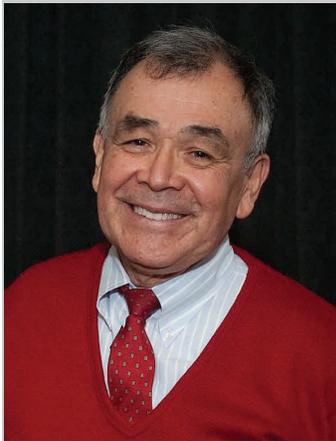
January/February 2012

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President's Corner: Healthcare Technology and the Sorcerer's Apprentices



Mobile technology continues to be one of the major drivers this year and carries considerable momentum from last year's advances in sophistication and implementation of mobile applications and devices. The health-care community quickly adopted it and challenged health-care organizations' security and governance infrastructures which were not nimble enough to accommodate rapid changes. According to mHIMSS, 90% of doctors use mobile devices at work while only 40% of hospitals have solid policies for their use. Medical applications are showing up in all corners of the health-care environment, and the trend does not show any signs of slowing down. The other two additional disruptive drivers to watch for this year are cloud technology and social media. They are at the gate of steep curves for demand,

growth, and transformation in health care.

Unprecedented mind-boggling growth in volume and complexity of health care technology reminds me of a story from my childhood. I remembered that Walt Disney-- not Goethe, the story author -- showed my young mind what happens when a promising magical technology goes wrong.. In the animated movie Fantasia, Mickey Mouse wanted to use magic to ease his chores of fetching pails of water and transferring water from a well to several containers in the room. He casts a spell on the housekeeping brooms and the brooms were transformed into efficient water carriers and quickly transported water from the well to the containers. All went well until the containers were full and the brooms continued to pour water in them. The room was soon flooded, and Mickey tried all the magic he knew and could not stop the brooms from drowning the room.

Given the speed and volume at which the healthcare technology is being developed and deployed makes it appear as if it has a life of its own -- like Mickey's brooms. To break the spell we need a coordinated effort of government, providers, vendors, professional associations, and other stakeholders to slow down escalating costs and deployment of non-evidence-based technologies. ACCE aims to do its part this year to help make real the potential for technology to enhance the health of communities and lower health care costs. We do it in alignment with our strategic themes of Leadership, Stewardship, and Collaboration/ Partnership.

To support our members in making a difference in their organizations, and to bring the other stakeholders to the table, ACCE delivers educational programs that include teleconferences, webinars, symposiums, and educational sessions at major national conferences. One of the recurrent themes in the programs that ACCE will deliver at Conferences this year is mobile health (mHealth). This is a technology that is impacting our practice and will have long term effects in the way the patient relates to the care giver. It is not hard to understand when we look at how it is being used today.

Mobile devices are giving physicians access to information to assist them in diagnosis, treatment, and monitoring of patients. The options range from their ability to access the latest Merck manual, to signing on to Epocrates for clinical consulting material, or to going to Advance Practice Strategies

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The New ACCE Elders Program

The ACCE Elders is a group of people with a lot of Clinical Engineering (CE) "firsts" through their long, distinguished careers who also have often excelled in other significant fields of endeavor. Each "elder" has been interviewed and the interviews have been recorded. The recordings will be used in variety of ACCE educational and marketing endeavors

The following is ACCE's first group of eight Elders:

Malcolm Ridgway: At TRW, he helped design life detection instrument placed on the surface of Mars during the 1976 Viking mission, and helped design an implantable 10-year plutonium power supply for an artificial heart using space technology. Starting in the BME field in 1959, he was a member of the first AAMI Board of Examiners for CE Certification from 1974-77. Since 1977, he has been a key leader for the first CE shared service organization now known as Masterplan.

Yadin David: After early military service in his home country of Israel, he later partnered with the US State Department, AT&T, and the Israeli Prime minister to bring a pediatric telemedicine program to Jordan as part of the peacemaking process. He later started ACCE and the Healthcare Technology Foundation (HTF), was the first CE to become an AIMBE Founding Fellow, and now leads the global CE association within IFMBE, CE Division, continuing his groundbreaking leadership.

David Harrington: He started as a designer of medical devices in 1964, among the group that designed Astronaut Neil Armstrong's moon-walking breathing equipment. He became the CE leader at New England Medical Center in 1976, then retired in 1996 in order to do international work where he has served in 70 countries and also headed international organizations.

Jim Wear: After starting with a PhD in Physical Chemistry in 1961 and working in the nuclear weapons industry, he spent 40 years being responsible for training of CE and safety personnel in 172 VA hospitals. He was professor and chair for Bio-

medical Instrumentation Technology at the University of Arkansas. His first love is teaching and learning from global CE friends, in Asia, Europe, Australia, Africa, and Latin America, with ACCE's advanced CE workshops.

Marv Shepherd: Active as a biomedical engineer in eye research as AAMI began in 1967, he was CE leader at UCSF Medical Center from 1971-1991. And then from 1992-2007, he ran his own company to investigate device-related accidents and became a patient safety guru. Now he's a published author of *The Sea Captain's Odyssey*, www.cmia.org/images/shepherd.pdf

George Johnston: Our eldest elder started out as a technician at Johns Hopkins School of Medicine in 1948, got a degree there, then moved on to NIH before founding OHSU CE, where he served from 1958-1988. His global CE work from 1983 to now has been on 5 continents. Since 'retirement' in 1988, he has also done legal expert witnessing and consulting in medical incident, and accident investigation.

Tom O'Dea: Starting out as a medical physicist and then medical device researcher, he worked with Northwestern University as part of the "Big Ten" on research with Riddell to improve their football helmet. This innovator later became a national CE leader and consultant, whose name is now synonymous with advocacy for our profession.

Mario Castañeda: This Colombian-American took a leap of faith emigrating to California as a teenager in the mid 1960s, discovered medical equipment talents, and joined our field. His subsequent 36-year CE career with Kaiser Permanente honed strategic leadership skills, now being shared as ACCE President, and in various global CE leader/consultant roles.

The 2011 Elder Video project has resulted in 3 DVDs: (1) a 6-minute ACCE marketing clip; (2) a 12-



minute glimpse of key career messages; and (3) a 30-minute in-depth review. Join us at HIMSS to see them and consider how the DVDs can be used. Thanks to sponsors Phoenix Data Systems/AIMS, (www.goaims.com, Ben Mannisto) and Awarepoint (www.awarepoint.com, Carla Gallegos) for their support of this project.

Tom Judd,

ACCE Advocacy Committee Chairman

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ACCE News

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President's Corner: Upcoming Conferences

(Continued from page 1)

(APS) for on-the-go continuing medical education. APS's continuing education programs for physician and nurses are grounded in information from medical-legal outcome records. APS extracts the teaching opportunity from these cases and incorporates it into the material delivered to the specialty physician or nurse. APS programs aim to make the lessons short and impactful, and above all to minimize the potential for patient injuries by alerting and educating practitioners to minimize the risk of a similar negative outcome.

Mobile devices are also used to transmit data from patient's homes. An integration application can process and send data from oximeters, pacemakers, blood pressure units, and scales. More applications are added daily for the wellness, telemedicine, and other health care fields.

Our first conference of this year is coming up shortly in Las Vegas, and will be followed by several activities during the year. The topics of leadership, mobile technology, cloud computing, social media, and analytics will be included in the programs along with our ongoing themes of patient safety, human factors engineering, convergence, integration, and interoperability. Here is an update of our main activities for this year:

ACCE Collaboration with HIMSS 12 Annual Conference and Exhibition – The most expansive program to date for ACCE participation as co-producer of several events including: **Clinical Engineering and IT Leadership Symposium: Critical Ingredients for Medical Device Connectivity (Monday)**: This is a convergent program for Physicians, Nurses, Informatics professionals, health care operations leaders, clinical engineers, and other professionals to hear updates from experts who are real-time integrating and operationalizing medical devices and associated networks. To acknowledge the importance of the sub-

jects addressed at the symposium, HIMSS and ACCE Sr Leadership will be kicking off this event.

Medical Device Pavilion – A new concept for 2012 to emphasize the importance of medical devices in integrated systems. ACCE will be presenting and facilitating a series of talks during Exhibit hours (Booth 14647 –Hall G) including:

- *Integration Using Mobile Telecommunication Infrastructure* (Tuesday, 5:15PM)—A case study of implementing mobile models in multi-hospital organizations.
- *FDA Guidance. What is a medical Device* (Wednesday, 2:45PM) – An opportunity to hear and engage with the regulators on current issues and upcoming changes.
- *IHE PCD Road to Interoperability* (Thursday, 10AM) – Hear from the experts who are setting up and running systems, specifically the integration labs and displays at the conference.

Clinical Engineering and IT Community -ACCE Reception and awards -- (Tuesday, 6PM) This is a gathering opportunity for all the related professions to share time, food and drink, together and hear the ACCE best-of- best awards for national and international members.

ACCE Educational Session – Is Health Care ready for Clinical Mobile Applications? – Thursday, 9:45AM) a premier presentation of a hot topic for health care organizations.

ACCE-HIMSS Excellence in Clinical Engineering and Information Technology Synergies Award –requires separate registration – (Thursday, 6:30PM – Bellagio Hotel, Venetian Room) – This the gala event where one person (who is a member of both organizations) gets recognized for significant contributions to both ACCE and HIMSS in the area of integration, interoperability, and good will ambassador for both organizations.

AAMI 2012 Conference and Expo (June 2-4, Charlotte, NC)—ACCE has signed a collaboration agreement and is presenting a Symposium on June 2. Ilir Kullolli is the program director for this Symposium and is working with his Symposium planning team to finalize the program.

Clinical Alarms Management Tool Kit – This product is being developed for ACCE's members to use at their respective organizations to assist with the planning, implementation, and problem solving related to clinical alarms.

ACCE Health Technology Executive Leadership Forums. This year ACCE will be initiating activities to create focused opportunities for clinical engineers to sharpen their skills and prepare themselves to fill the current and upcoming opportunities in leadership roles in this new converged world. News of challenging high health care costs and low accessibility comingle with reports of fast innovation and availability of improved medical informatics, device technology, and consumer electronics. Clinical engineers are poised to play more significant roles in appropriately bringing technology to address health care issues. The forum programs will do just that, and will include workshops and meetings designed to engage with successful leaders who are effectively dealing with current issues, and with innovators who are redefining the path for things to come in our field.

I am looking forward to participating in conferences such as HIMSS, AAMI, and others later in the year, and to work with all of you to support your, and your organizations, goals. I hope to see you all at the ACCE 2012 events.

Mario Castaneda,

President ACCE

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Interview: Dave Simmons, First VA BME Chief

Editors note: The September/October 2011 issue of ACCE News contained an interview with the new director of the national office of the Veterans Administrations (VA) Biomedical Engineering (BME) programs, Kurt Finke, describing his vision for VA BME and some of the many challenges and opportunities facing their very large healthcare organization, the US's largest BME program. That article spawned interest in the history of the VA BME program, an important piece of the 50- plus year history of Clinical Engineering in the US. The following article is based on an interview with David Simmons, ScD, the first director of the VA BME program.

In 1971, the VA's Chief Medical Director (now known as the Undersecretary for Health) appointed a special committee to review the VA's medical equipment usage, equipment needs, equipment user training and equipment service and then to develop a plan and recommendations to address these issues. One of the recommendations was to create a position of Chief of Biomedical Engineering position in Central Office in order to build a system-wide program to solve the existing identified problems and to prevent such problems in the future.

In August, 1972, David Simmons, ScD was selected by the Chief Medical Director to be the first Chief of Biomedical Engineering for the Veterans Administration Health Care system; headquartered in Washington, DC. Subsequently, Dr Simmons spent almost 50 years working as a Biomedical Engineer for the VA, Indian Health Service and other organizations.

The following is an interview with Dr Simmons that took place in January 2012.

Provide a brief history of the years you were in Biomedical Engineering and what your job responsibilities were with the VA.

I was hired as a Health Scientist, since there was no Biomedical Engineering title in the government at that time. I worked for over a year with the Civil Service Commission to create the Biomedical Engineer (BME) and Biomedical Engineering Techni-

cian (BMET) job titles and job codes. My primary assignments were to create a system-wide program for the 168 VA hospitals that would both address the identified medical equipment issues and in so far as possible, assist each hospital to establish and partially fund local Biomedical Engineering programs at as many hospitals as possible. In addition to assisting each VA hospital in identifying and hiring Biomedical Engineers and Biomedical Engineering Technicians, we created BME and BMET training programs at the VA hospital in North Little Rock Arkansas and an Engineering Service Center which became a national repository for medical equipment service manuals, schematics, and related service documentation that could be accessed by any BE or BMET for use at their hospital.

What was the VA BME organization (national office, local VA hospitals etc) and BME size when you started and then when you left the VA?

Organizationally, as Chief of Biomedical Engineering nationally, I was stationed in Washington DC at the VA headquarters or Central Office as it was called in 1972. In each VA hospital there was an Engineering department. Each Medical Equipment Repairman, as they were called in 1972 reported directly to the individual hospital's Chief of Engineering.

The numbers are very interesting. When I started, there were about 300 Medical Equipment Repairmen (MER) and I was the first Biomedical Engineer. When I left in 1976, there were 600 Biomedical Engineering Technicians (BMET)s and 80 degreed Biomedical Engineers (BME). The Government Accounting Office (GAO) monitored the program because they wanted to see if the program, with all the new people was justified and paying for itself. I was even "invited" to testify before Senator Kennedy's Health Committee, which I did. The program was deemed a big success due to the reduction of repairs (and cost) being done by manufacturers, as they were before the program began.

How did you spend your day as a VA BME near the beginning of your career?

My time was spent in working with each individual hospital's Engineering department in developing programs which included identifying qualified Biomedical Engineers (BME), staffing, funding and, training. One of the reasons that the alleged problems existed was because the VA's Supply Service (Purchasing) had a policy that essentially stipulated that medical equipment was to be repaired by the original manufacturer; either on-site or by returning the equipment to the manufacturer's facility for repair. One of my tasks was to work with the Supply Service to change their policy as we began to implement the new Biomedical Engineering programs at individual hospitals.

What amount of time do you feel you spent with a project focus (e.g planning) vs. an operational focus (e.g. repair and maintenance supervision)?

The majority of my time was spent on program promotion, development, and implementation. I was still able to go to individual hospitals to provide technical support on specific medical equipment problems; especially in operating rooms, intensive care units, and laboratory situations.

What were the top Biomedical Engineering issues when you started your VA career?

The major issues were: a lack of qualified BMEs and BMETs; repair problems from a lack of BMETs at almost all 168 hospitals; outdated medical equipment at almost every hospital; lack of adequate clinical user training regarding the proper use of existing medical equipment and a need for more modern and up-to-date medical equipment.

What were the top Biomedical Engineering issues when you left the VA?

By 1976, when I moved to the Indian Health Service as part of the US Public

(Continued on page 5)

Simmons Interview continued

(Continued from page 4)

Health Service, most of the above problems had been significantly addressed and we were focusing on continued program development system-wide.

Obviously, IT was not such a major player in the BME/CE arena a few decades ago. What was the role of computers in healthcare at the VA back then?

In the mid 70s, IT was virtually non-existent in health care equipment.

What advice would you give new Clinical Engineering students and new graduates who are just now entering the CE workforce?

I currently urge new Clinical Engineers to take classes or even get a minor in computer science which is now an absolute necessity in being a good BME in today's health care facilities.

What advice do you have for Kurt Finke in his role of running a VA CE organization of approximately 1,000 staff?

Reading the Kurt Finke interview was very rewarding to see the growth and progress that VA Biomedical Engineering has made in the last 40 years. Kurt's reaching out to WHO and other related organizations is a major step and very much needed in today's world. Also significant advances have been made in the IT relationship and in electronic medical records. I applaud Kurt's strong position about increasing BME and BMET certification. Also, I am glad to see Biomedical Engineering elevated to the Office of Healthcare Technology Management. I wish Kurt the best of luck in his new position as Director.

Any other comments you would like to make about your VA career or BME in general?

I have been very fortunate to have spent the last nearly 50 years in health care in so many different challenging and rewarding capacities. The most rewarding were my two different periods of service in the Veterans Administration.

Ted Cohen

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Welcome New Members

Please welcome the following new ACCE members:

Institutional Member: University of Michigan Health Systems and its representatives: Associate Member, Don Mayes; Individual Members, Patric Lobbstaal, and Salim Kai

Candidate Members: UConn graduate students: Nathalia Londono-Jaramillo and Michael Ballintyn

Individual Members: Senthil Kumar Rama Moorthy (Mount Elizabeth Hospital/Singapore), Freddy Gustavo Matomoros Espinoza (Honorable Junta de Beneficencia de Guayaquil/ECUADOR), Fernando Emilio Ballina (Hospital de Alta Complejidad El Cruce, Argentina).

ACCE Activities @HIMSS



Attend these cosponsored ACCE can't miss events at [HIMSS12](#) in Las Vegas, Nevada
February 20-24, 2012

Clinical Engineering & IT / ACCE Awards Reception
Tuesday 2/21, 6PM- 9PM, Location: Bellini 2104

Come enjoy food and drink and the opportunity to network with ACCE members and participants in the CE-IT symposium, HIMSS Knowledge Center Medical Device Pavilion, IHE PCD Showcase, and ACCE Education Session.

People who attend HIMSS12 events and have common interests can meet at the Reception to continue the conversation. [RSVP Today!](#)

Clinical Engineering & IT Leadership Symposium - Monday 2/20
[Critical Ingredients for Medical Device Connectivity](#)

Medical Device Pavilion (held during Exhibit hours) - Booth 14647, Hall G

Tuesday 2/21	5:15PM	Integration Using Mobile Telecommunication Infrastructure
Tuesday 2/21	5:00PM	Meet the Experts: Clinical Engineering & IT - Working Together
Wednesday 2/22	2:45 PM	FDA Guidance. Is it really a medical device?
Thursday 2/23	10:00AM	IHE PCD Road to Interoperability



NEW THIS YEAR! ACCE Education Session

Thursday 2/23 9:45 AM [Clinical Mobile Applications. Is Healthcare ready?](#)

Clinical Engineering & IT Community at HIMSS12

AAMI, ACCE and HIMSS have joined forces to provide a multi-stakeholder forum for the integration of medical devices and the EMR environment.

Join the Clinical Community Reception & joint ACCE Annual Awards, [attend the Symposium](#), explore the [NEW Medical Device Pavilion](#) - start your transformation to medical device connectivity at HIMSS12!

Perspectives from ECRI Institute:

Bad Things from Bad Data

We've all heard the expression "Garbage in-garbage out" but what does it really mean when we look at the type of data that we have in our Computerized Maintenance Management Systems (CMMS)? ECRI Institute has received and reviewed maintenance databases from many healthcare facilities over the past few years. In this article I'll provide a sample of the data issues we've seen and discuss the problems that they create. I hope that you'll check your own data to eliminate these problems so that you'll increase patient safety and decrease costs for your institution.

The following are some examples: Manufacturer and/or Model name is inadequately described which makes it hard to find equipment. We've seen terms like "N/A", "Unknown" or "Various" as well as simply leaving the field blank. When you learn of a hazard, recall, or discontinued device, you use the equipment listing in your CMMS to search for it in your inventory. If you don't have an accurate description in these fields you aren't likely to find it and you won't be able to take the appropriate action. Missing a recall decreases patient safety.

Incorrect purchase cost causes errors in your budgets and productivity measures. If the purchase cost is missing, or is listed as \$0 or \$1, you will understate the total cost of the equipment in your inventory. Productivity measures that include equipment value, such as the value of equipment supported per technician and the service cost to acquisition cost, will cause your department to look worse than those departments with more accurate cost information.

Incorrect retirement status may increase expenses and decrease safety.

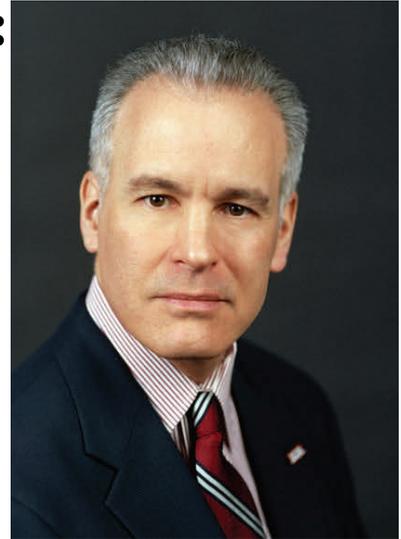
We often see equipment that is listed as retired, yet has recent work orders associated with it. So it's likely to actually still be in service and its status should be changed to "active". Otherwise there's a good chance that recalls or other safety-related notices on that equipment will fall through the cracks. Conversely, if the equipment is listed as active yet has a post-due retirement date, you need to change its status to "retired" and to remove it from your books so that the hospital doesn't incur insurance or other costs that are only appropriate for equipment that is in service. Your productivity measures such as the number of devices per FTE will also be in error if your inventory isn't accurate.

Missing purchase date leads to poor budgeting and planning. When the purchase date is missing, you won't know the age of the equipment so you won't be able to develop a plan and budget for replacement.

Most CMMS systems don't automatically flag these conditions. You need to run a report that includes the relevant information and check it yourself. Contact me to learn how ECRI Institute can check your data for you (and to receive a report about how your data compares to other institutions).

Jonathan A. Gaev,

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Jonathan A. Gaev, MSE, CCE, HEM, PMP, is the Business Line Manager for Biomedical-Benchmark™ at the ECRI Institute

Would You Like to Write for ACCE News?

The ACCE News is always looking for good, short (~ 500 –1,500 words), previously unpublished articles. Short technical articles, case studies, controversial issues, opinion pieces (in good taste of course), and other Clinical Engineering-related material is always welcome. If you have any ideas about a one-time article or a continuing series or a column, please contact one of the editors and we will discuss it with you.

Thanks for making the ACCE News your quality newsletter.

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Healthcare Technology Foundation News

HTF

Healthcare Technology FOUNDATION

Improve healthcare delivery outcomes
by promoting the development,
application and support of safe and effective
healthcare technologies.

The HTF has joined a team of associations – ACCE, IFMBE-CED - and other international leaders for monthly conference calls with Adriana Velasquez, Coordinator – Diagnostic Imaging & Medical Devices at the World Health Organization. HTF intends to support the international healthcare technology

community. For example, the HTF board recently voted to co-fund the ACCE/ Orbis International ACEW award with ACCE.

The HTF Clinical Alarms Task Force continues to meet to develop publications focused on the healthcare field's response to the 2011 National Clinical Alarms Survey. Contact with the American Association for Respiratory Care (AARC) has resulted in the organization preparing an article for publication in the AARC Times based on the response by the 2071 respiratory therapists to the survey. A task force subgroup is working toward publishing an article based on nursing results and focusing on differences between the current and prior survey, use environments, and comparison with other caregivers. Publication applications have been submitted for a poster at the National Patient Safety Foundation annual meeting and for presentation at the World Congress on Medical Physics and Biomedical Engineering. Another subgroup is reviewing and analyzing all the comments. Dr. William Hyman is developing an article for the Journal of Clinical Engineering. He also has a recent editorial on alarm fatigue in [Cuidado Online](http://www.thehtf.org/documents/AlarmFatigue-Hyman.pdf), see link: <http://www.thehtf.org/documents/AlarmFatigue-Hyman.pdf>

If you have any contacts within the clinical community who you think may be interested in collaboration, please let us know. You can review the summary publication on our website: www.thehtf.org .

Don't forget about HTF for your donation opportunity. We will accept them anytime and they are always tax deductible! Please visit our website: <http://www.thehtf.org/>

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James Wear Scholarship

James Wear, Ph.D., was working in a national research center at the Veterans Affairs Medical Center when he was asked to evaluate some unused VA medical research equipment. The request eventually led him to start the National Veterans Affairs Engineering Training Center. One of the VA programs was training staff on how to maintain medical equipment, which became one of the first six programs when the College of Health Related Professions was established in 1971. His work also has taken him around the world to advise others in hospital engineering, which recently earned him an international humanitarian award from the Association for the Advancement of Medical Instrumentation (AAMI). The organization credited Wear with authoring more than 200 manuscripts and technical guides that are used internationally by both engineers and technicians, establishing a certification program for engineers in Malaysia, and training engineers from all over the world. "It has given me a chance to travel," said Wear, who retired from the VA in 2007. "I have lectured on every continent except Antarctica." Wear was chair of the Department of Biomedical Instrumentation Technology until the program was discontinued in 2000 after demand declined. He stayed busy at the VA as director of the VA training center while also traveling to promote engineering and hospital safety. He also kept supporting the college through donations. "I just thought it was a good thing to do. They did a good thing for me," said Wear, a founding member with his wife of the college's Dean's Society. "I was still con-



ducting a continuing education program for the college." His support of the college led to creation of the James O. Wear, Ph.D., Endowed Scholarship using funds from the continuing education program. The scholarship will be awarded annually for the first time in 2011. "As an endowment it will be able to go on and support students for years to come," he said. Wear said he has kept in touch with many former students, some of whom have gone on to start biomedical companies and to be in charge of biomedical engineering programs at hospitals. "It has really made me proud to find out about their successes". More information is available from James Wear at wear-jam@cswnet.com.

International Committee Membership Sponsorships

In accordance with the International Committee's (IC) newly established mission, vision, and goals, in which international outreach is such an important strategy, the IC is promoting a *membership sponsorship program* that will rely on the generosity of existing ACCE members to

cover the membership dues for qualifying international members of lower income countries.

In some cases, qualified applicants living outside of high income countries cannot

afford the ACCE membership fees and, even when they can, making payments overseas through PayPal or through a credit card can be very cumbersome and in many cases is not possible.

Highlights of this new program include: New annual membership fees for international members have been established (see table and visit <http://accenet.org/default.asp?page=membership§ion=application>).

These rates are based on The World Bank's classification of countries by per capita income: low income, lower-middle income, upper-middle income, and high income. As a result of this new rate structure ACCE memberships will be more affordable globally.

Existing ACCE members can volunteer to donate a multi-year membership for international applicants who have a hard time paying their fees, especially those from lower-middle income and low income countries.

For very little money, your membership sponsorship donation can have a lasting benefit for your sponsored member. As an example, I recently sponsored an African member for 5 years of membership and it only cost me \$15 (\$3 per year).

Multi-year sponsorships are preferred since it reduces the processing work required to renew memberships every single year. As the ACCE Membership Committee becomes aware of membership applicants that may need a multi-year sponsorship, a message will be sent out to the ACCE community soliciting sponsors. Sponsored members will be provided with the name and email address of their benefactor and the benefactors will be recognized in ACCE's newsletter.

We are counting on your generosity to support our clinical engineering colleagues worldwide. Thank you in advance for your support!

Ismael Cordero

Member, ACCE International Committee

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ACCE Membership Fees Per Country of Residency			
Group 1: High Income	Group 2: Upper-Mid Income	Group 3: Lower-Mid Income	Group 4: Low Income
Individual, Fellow, Associate US\$60.00/year	Individual, Fellow, Associate US\$40.00/year	Individual, Fellow, Associate US\$12.00/year	Individual, Fellow, Associate US\$3.00/year
Candidate US \$30.00	Candidate US \$20.00	Candidate US \$6.00	Candidate US \$2.00
Australia	Albania	Angola	Afghanistan
Austria	Algeria	Armenia	Bangladesh
Bahamas, The	Antigua and Barbuda	Belize	Benin
Bahrain	Argentina	Bhutan	Burkina Faso
Belgium	Azerbaijan	Bolivia	Burundi
Canada	Belarus	Cameroon	Cambodia
Channel Islands	Bosnia and Herzegovina	Cape Verde	Central African Republic
Croatia	Botswana	China	Chad
Cyprus	Brazil	Congo, Rep.	Comoros
Czech Republic	Bulgaria	Cote d'Ivoire	Eritrea
Denmark	Chile	Djibouti	Ethiopia
Equatorial Guinea	Colombia	Ecuador	Gambia, The
Estonia	Costa Rica	Egypt, Arab Rep.	Guinea
Finland	Cuba	El Salvador	Guinea-Bissau
France	Dominica	Fiji	Kenya
Germany	Dominican Republic	Georgia	Kyrgyz Republic
Greece	Gabon	Ghana	Lao PDR
Greenland	Grenada	Guatemala	Lesotho
Hong Kong SAR, China	Iran, Islamic Rep.	Guyana	Liberia
Hungary	Jamaica	Honduras	Madagascar
Iceland	Kazakhstan	India	Malawi
Ireland	Lebanon	Indonesia	Mali
Israel	Libya	Iraq	Mauritania
Italy	Lithuania	Jordan	Mozambique
Japan	Macedonia, FYR	Kiribati	Nepal
Korea, Rep.	Malaysia	Kosovo	Niger
Kuwait	Mauritius	Maldives	Rwanda
Latvia	Mexico	Marshall Islands	Sierra Leone
Liechtenstein	Montenegro	Micronesia, Fed. Sts.	Solomon Islands
Luxembourg	Namibia	Moldova	Tajikistan
Macao SAR, China	Palau	Mongolia	Tanzania
Malta	Panama	Morocco	Togo
Monaco	Peru	Nicaragua	Uganda
Netherlands	Russian Federation	Nigeria	Vietnam
New Zealand	Serbia	Pakistan	Zambia
Norway	Seychelles	Papua New Guinea	Zimbabwe
Oman	South Africa	Paraguay	
Poland	St. Kitts and Nevis	Philippines	
Portugal	St. Lucia	Samoa	
San Marino	St. Vincent and Grenadines	Sao Tome and Principe	
Saudi Arabia	Suriname	Senegal	
Singapore	Turkey	Sri Lanka	
Slovak Republic	Uruguay	Sudan	
Slovenia	Venezuela, RB	Swaziland	
Spain		Syrian Arab Republic	
Sweden		Thailand	
Switzerland		Tonga	
Trinidad and Tobago		Tunisia	
United Kingdom		Turkmenistan	
United States		Ukraine	
		Uzbekistan	
		Vanuatu	
		Yemen, Rep.	

Education Committee

Update Report

2011 was a year filled with events and excitement for ACCE Education Committee. Among other things we helped organize a successful Clinical Engineering Symposium at AAMI, we put together a CCE Study Course over Webex, and continued in the tradition of organizing successful tele-conference series for the Clinical Engineering Community. We closed 2011 with a presentation on Evaluation of Medical Devices for Telemedicine from Dr. Chris Patricoski (from AFHCAN). In January 2012 we had a presentation on Radiation Protection/CT Dose Management from

ECRI Institute's Jason Launder and Rohit Inamdar.

We have a great line-up of speakers in the rest of 2012, and hope to continue building on the previous years' successes.

For more information on the 2011-2012 Teleconference Series please see below:

Have a Great and Happy 2012!

Ilijir Kullolli, MS

ACCE Education Committee Chair

ilijir.kullolli@gmail.com

February 16, 2012	Disaster Planning for Healthcare Technology
March 15, 2012	Project Management for Clinical Engineering
April 19, 2012	Budgeting and Finance for Healthcare Technology
May 17, 2012	Negotiating Service Contracts
June 14, 2012	Risk Management for Complex Medical Devices
July 19, 2012	Medical Device System Security
August 16, 2012	Integration Strategy Development

UCONN 2012 CE GRADS



The University of Connecticut, Clinical Engineering Masters degree class of 2012: Front row (left to right): Jonathan Riscica, Mark Galliette, Rodrigo Campora, David Pillittere. Back row: Helen Cheong, Tasneem Pishori, Elena Simoncini, Kathleen Grunder, Catherine Weitenbeck. (Note: resumes for these graduates are posted at www.ceeducation.org)

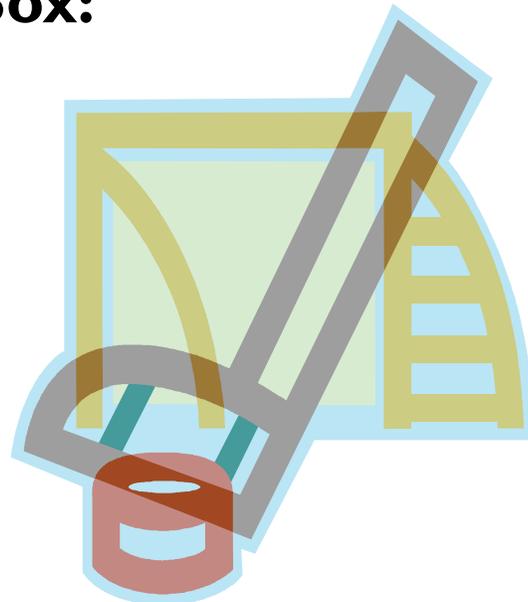
New CCEs

Congratulations to the 40 new CCEs in 2011 (a record number) listed below..

Sheena House	Arlington, TN
Elizabeth Byers	Murfreesboro, TN
Shelly Crisler	Minneapolis, MN
Kelly Luu	Aurora, CO
Matthew Savoie	Waukesha, WI
Megan Friel	Centreville, VA
Christian Houterman	Shorewood, WI
Joy Amundson	Lebanon, OH
Robert Steldt	Milwaukee, WI
Emily Salmon	Little Rock, AR
Michael Phelps	Minneapolis, MN
Robert Pastorello	Cutler Bay, FL
Eric Plaisance	Seminole, FL
Anthony Angelo	Bethesda, MD
Michael Capuano	Hamilton, Ontario CANADA
Patricia Volpe	Wakefield, MA
Jay Patterson	Phoenix, AZ
Edward Witzman	San Francisco, CA
Kenneth Allen	Alexander, AR
Kurt Finke	Eagan, MN
Kevin Jensen	Charleston, SC
Radhika Patole	San Antonio, TX
Geminia Hopkins	Murfreesboro, TN
Melseracarlo Dumo	Houston, TX
Lee Winslow	Norwich, VT
Lisa Bradley	West Roxbury, MA
Jeanette Thielen	Seattle, WA
Carolyn Mahoney	Bedford, NH
Ashley O'Mara	Gainesville, FL
Barrett Franklin	West Roxbury, MA
Brandon T Weiss	Sacramento, CA
Salvatore Tatta	Whitestone, NY
Henry Stankiewicz	Milton, MA
Rebecca Anderson	Dallas, TX
Max Sabra	Fort Wayne, IN
Tocher Kellon	Mather, CA
Jennifer Gersten	Iowa City, IA
Antoinette Majors	Gulfport, MS
Jacob Jensen	North Las Vegas, NV
Michelle Baquie	Madison, MS

The View from the Penalty Box:

What Bodes for 2012?



Here we are in another year that will seem longer than normal because of all the political ads that we will be seeing, hearing and finally ignoring. This is an important election for our country, and hopefully, those elected will have the courage to work on correcting the problems with healthcare. Please get involved and vote.

As major players in healthcare, clinical engineers have to step out of their comfort zones and attack problems that have been avoided for years. These include getting full documentation and software on devices so they can be serviced in-house. How many billions will that save, if it can be accomplished? Clinical engineers also must speak up on outdated technology that we keep using even when there are clearly better and cheaper ways of doing a task. How many of the devices in your inventory are no longer supported by the manufacturer, or in some hospitals even used? If they perform better than the newer devices hold on to them, for as long as possible, if not get them out of service and, if not used, get them out of patient areas and off your inventory. The risk managers may have something to say about obsolete equipment that does not meet the standard of care in your area. Lawyers are always looking for someone or something to blame and collect money from, so be careful.

There is a major push, here in the Boston area, on alarm fatigue and how deaths have been linked to the fatigue. In a December 29, 2011 article in the Boston Globe, 11 deaths between January 2007 and September 2010 were listed as contributed to by alarm fatigue. Several of these deaths were traced back to electrodes or leads falling off, and several more to battery problems on telemetry units. In that same issue of the Globe was another short article that one of the major hospitals in Boston was putting monitors at every bed.

About 40 years ago several engineers,

nurses and physicians from several Boston area hospitals met to try to establish what alarms were needed as primary alarms with sounds and lights, and what conditions should only trigger an ECG strip recording showing date and time but no diagnosis. After several months of meetings they collectively came up with a very good list, unfortunately that list never was transmitted to the manufacturers or others so the number of parameters that could trigger an alarm continued to grow. Now we need Clinical Engineers to come together again to review all the alarm parameters and reduce the number that have audio alarms and increase the number that just log information into the patient records. The big problem is how to get the information out to users so the noise levels can be reduced in inpatient areas.

A study from Yale published in the Journal of Electrocardiology stated that 86% of those monitored for Ischemia and 85% of those monitored for abnormal QT intervals did not meet the criteria for monitoring. Do I smell a lawyer somewhere in this mix? An item that appeared in many of the event reports was that problems with electrodes and lead wires were a major contributor to false alarms. Should we add testing lead wires to our PM/QA testing cycles? Also should we review all the policies and procedures that involve equipment in the patient areas? The Clinical Engineering group needs to review all policies and procedures involving patient care equipment. This could be a real problem where a lot of new equipment was recently installed into that area. Another good question might be when were those policies written? In one recent review at a hospital I found some equipment policies that had not changed since they were created in 1977. I wrote good policies but not that good that they are still valid 32 years later. I

wonder how many times that policy was followed or even read over the years.

These next several years are going to be tough on Clinical Engineers as we will be expected, as always, to provide great services with little budget. Many healthcare professionals fail to think about how many of the devices we service determine what the patient receives for treatment, both long and short term, what the costs are for those devices being available and what can be done better at less of a cost if we could get administrators and politicians to listen to us. So we need to rise up, as a group, saying that we can make things better for all and then make it happen. As a profession we have the talent now we have to work as a team, not like the Jets, Cubs or Red Sox, to get things done.

Have a safe and healthy winter and communicate your ideas.

Dave Harrington

dave@sbtech.com

ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

The ACCE Board and Committee Chairs

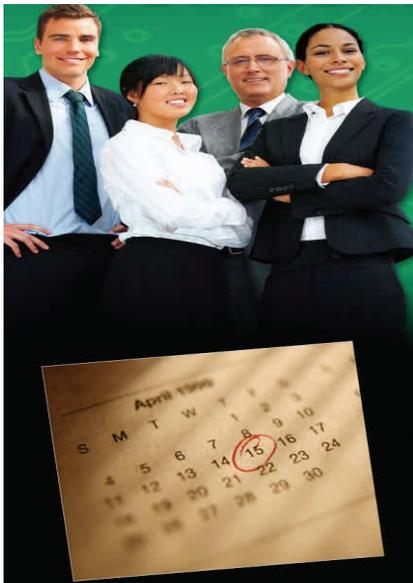
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ACCE Mission

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

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

Feb 20-24, 2012
HIMSS 2012
Las Vegas, NV

Apr 11-13, 2012
MD Expo Spring 2012
Fort Lauderdale, FL
[http://mdexposhow.com/
docs/12ExpoSP_Pre-
ShowPlanner.pdf](http://mdexposhow.com/docs/12ExpoSP_Pre-ShowPlanner.pdf)

June 2-4, 2012
AAMI Annual
Conference and Expo
Charlotte, NC

ACCE Teleconferences:

See <http://accenet.org/> for information about ACCE's teleconference series.

We are on the Web:

www.accenet.org