



ACCE News

Newsletter of the American College of Clinical Engineering

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Membership Renewal

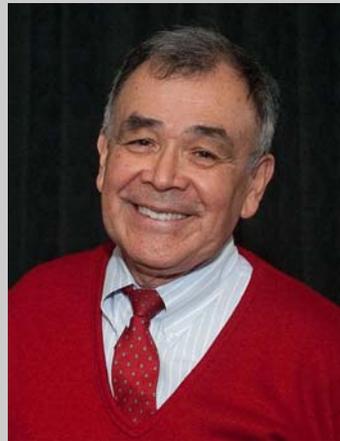
If you have not already done so, please renew your ACCE membership on-line at www.acenet.org by clicking on the yellow highlighted link at the top of the homepage and logging in. You may alternatively renew by mailing a check or money order to :

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President: CE Leadership Opportunities



Opportunities for Clinical Engineers to contribute their expertise abound as our healthcare organizations must deal with the daily challenges of fulfilling their missions in a rapidly changing technological environment and a challenging financial climate. Further, regulators look for empirical data to base their updates, to draft new definitions and new codes; additionally, industry, old and new players, wants clinical engineers input to leverage their might to fill new needs for products and services.

Our American College of Clinical Engineering is here to support our member's leadership as we tackle these issues and safeguard patient safety as the medical technology becomes more connected and relentlessly complex. This complexity brings about issues that can no longer be addressed by a single organization and requires multiple stakeholders to converge to deliver solutions. To this end ACCE's strategic path include collaboration and partnerships with

other organizations.

The highlights for the activities ACCE has been engaged in the last two months include the excellent work that our Committees have done, and the collaboration initiatives our Board has sponsored. These activities follow ACCE's strategic themes of Leadership, Stewardship, and collaboration and partnership.

Ilir Kulloli leads the Education Committee and continues to deliver the teleconference series and he has completed the program for the upcoming ACCE Symposium at the AAMI annual conference in San Antonio. This year's Symposium "Interoperability -- The Path to Lower Cost and Higher Quality Interfaces" focuses squarely on solutions to a critical issue health care organizations face as they struggle to meet Meaningful Use criteria in an environment that requires high integration of medical devices with limited budgets available. The AAMI conference is an excellent venue to present this subject because of its high attendance of representatives from hospitals and health care systems.

To further deliver value to this subject, ACCE will cosponsor, and fund, a connectivity lab demonstration at the AAMI conference under the auspices of **Integrating the Health Care Enterprise – Patient Care Devices Domain** (IHE - PCD). ACCE cofounded the PCD with HIMSS.

Advocacy, under Tom Judd's leadership, completed the 2011 award program. The award presentations began at the HIMSS conference ACCE reception and meeting and will continue at the AAMI conference ACCE reception. Advocacy continues to design programs and activities to promote ACCE visibility with our US legislation and regulatory entities as well as internationally. Advocacy will be publishing a comprehensive list of government and pertinent institutions, committees, and activities where ACCE needs to be represented or lead on behalf of its members. The disaster in Japan brought up the need for ACCE to have a process to contribute resources to disaster relief efforts. The road to developing a coordinated international relief process will be under the International Federation for Medical and Biological Engineers, Clinical Engineering Division (IFMBE-CED). IFMBE is framing this process, and ACCE as member of IFMBE will follow this process. Meanwhile, Advocacy has developed a process specific to Japan for ACCE in collaboration with the Japanese Association for

(Continued on page 2)

President's Report continued

Clinical Engineers (JACET) to send donations, and is finalizing the Tax-exempt status for donors who request it.

Our infrastructure has been enhanced by work of the Membership Committee. Jim Wear, and Suly Chi, Membership Committee Chair and Secretariat respectively, have reported that our members and prospective members can now complete all transactions on line. The membership web page has had a major overhaul, and reflects the enhancements brought about by the Committee. It is more user-friendly and includes Corporate and Intuitional membership updates and country-based membership rates. Our members in developing countries pay for membership in proportion to their countries' economies.

Tony Easty at the helm of the International Committee has reported the Vision, Mission, Goals and priorities for his Committee. We are headed to becoming a WHO Collaborating Center, delivering several workshops and assistance to five countries and aligning with IFMBE programs around the globe. WHO has continued the funding for INFRATECH (Soon to become HEALTHTECH) -- an ACCE managed technical forum where the world clinical engineering community can access information and provide updates.

Regretfully, Tony is leaving the Chair position in June with the gratitude of ACCE for the many years of service to the ACCE international Community. We are identifying a new chair and will announce the appointment as soon as it gets finalized.

We have been able to make quick progress in our priorities this year because of the dedicated body of Committee members and the support of our Board of Directors. I appreciate the Board's flexibility and fast moving approval process. The recent approvals include one important collaboration initiative in flight: ACCE, AAMI, and ECRI Institute will co-convene a Clinical Alarm Summit with the main stake holders in the US. The event is planned to take place in Washington, DC, early October 2011. The main objective of this Summit is to develop a collaborative action plan that addresses the operational, design, regulatory, and other complex issues surrounding alarms in the clinical setting. This is a watershed activity that will set a model for resolving the complex problems brought about by the convergence of technologies in the patient care space.

Regarding collaboration in publications, ACCE is featured in the Clinical Alarm

edition of an AAMI's publication Horizons. AAMI and ACCE are exploring additional opportunities to co-publish educational material of benefit to our memberships and our field.

I want to close by recognizing Tony Easty as a pioneer and high contributor in the clinical engineering international community. I'd like to feature the accomplishments and future path of our international work in our upcoming newsletter issue. Thank you Tony, we will miss you as a Chair.

Happy spring!

Mario Castañeda

president@accenet.org

ACCE News

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Welcome New Members

The ACCE Board of Directors approved the following list of individuals for ACCE membership.

Associate Membership: Ali Ajrouche, Krista Cowan, Mary Ann Kelly, Carol Klufts, Ahmed Turkmen.

Candidate Membership: Kathleen Grunder, Pratyusha Mattegunta, Joseph Ouellette, Jonathan Riscica, Rodolfo Sanchez, Jr., Catherine Weitenbeck,

Up-grade to Individual Membership: Anthony Angelo, Kindall Druker.

Individual Membership: Saide Jorge Calil, Ken Fuchs, Julian Goldman, Miguel Davila-

Morey, George Panyarachun, Joe R. Sanda.

Corporate Membership: Lighthouse Imaging Corp, Contact: Mark Waite.

Institutional Membership: Eastern Maine Medical Center, Contact: Ken Mitchell.

Please welcome these new members!

James Wear

membershipchair@accenet.org

Healthcare Technology Foundation News: New Tools for Managing Healthcare IT Networks

Following the implementation last year of a new strategic plan, the Healthcare Technology Foundation (HTF) has identified for action a significant challenge that most healthcare technology managers are facing. As many of you know, we are seeing an increasing number of devices with embedded intelligence and a stronger necessity for interoperability. This is requiring interfacing clinical engineering skills with those of telecommunications and an increased attention to IT and risk management. The combined effect is the evolution of integrated knowledge and understanding of subjects that were not critical for a successful clinical engineering career until now. To help managers address this challenge, HTF has developed an initiative and committed funds to inaugurate it. HTF has approached other leading organizations to collaborate and share in the implementation of this initiative:

This HTF Demonstration Project, entitled: **Tools for Managing Integrated Technology Risk in Healthcare Delivery Organizations**, is intended to help clinical engineers and IT professionals understand

what is required to practically apply risk management methodology, like that described in the recently approved standard IEC-80001, within their organization. In the process clinical engineering will realize the benefits of 80001 for their communities as well as their own professional growth. However, focusing only on 80001 is not the answer to achieving effective system utilization. The initiative will also provide a basis for clinical engineering to take a leadership position for influencing the development of related guidance documents by standards organizations. It includes education of consumers who are directly affected by the networked technologies that provide health care. Once completed, this project can support the setting of standard of practice for clinical engineering and IT communities in health-care.

The initial project will focus on development and publishing a monograph and other instructional materials and activities covering the **Opportunities, Skills and Competencies** needed by clinical engineers to practically apply 80001 to manage

networked medical technologies within their healthcare delivery organizations. We look forward to sharing more as the initiative develops.

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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Yadin David, EdD, CCE, PE, HCSP, President Emeritus
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ACCE Joins AAMI Alarms Publication

ACCE has signed as a supporter of AAMI's spring edition of *Horizons* magazine, which will focus on the problems surrounding medical alarm systems and what can be done to improve their safe and effective use.

The award-winning magazine—which will be published in May—will provide in-depth, practical articles and research focusing on alarm hazards. While medical alarm systems warn of danger by alerting caregivers to critical information, they can malfunction or are turned off, ignored, or unheard, earning a top spot on lists of the most frequent and serious problems seen with devices.

The *Horizons* publication will be distributed to 10,000 medical technology professionals, including to [all AAMI members](#) and attendees at [AAMI's Annual Conference & Expo](#), which will be held June 25-

27 in San Antonio, TX.

ACCE is one of seven national healthcare organizations that have signed on as a supporting organization to *Horizons*. Others include: ECRI Institute, The National Patient Safety Foundation, The Infusion Nurses Society, The Institute for Safe Medication Practices, The Association of Surgical Technologists, and The Healthcare Technology Foundation.

These seven groups will promote the publication to their members and customers to help expand the visibility of the articles and topic.

"This broad-based collaboration with seven significant organizations underscores our decision to tackle a tough problem in healthcare," said AAMI President Mary Logan.

Horizons will include articles on alarms standards and risk management standards, alarms hazards and recommendations, the design of effective alarm sounds, the use of mobile devices to improve alarm sounds, and several other topics.

For more information about *Horizons*, [click here](#) or for advertising opportunities contact Judy Riling at jriling@aami.org or [reserve your advertising space here](#).

Founded in 1967, AAMI (the Association for the Advancement of Medical Instrumentation) represents more than 6,000 medical equipment professionals.

Jim Welch

jwelch639@gmail.com

Japan Disaster Relief: How Can ACCE Help?

The ACCE, under the leadership of ACCE President Mario Castañeda, Yadin David, Tom Judd, Fred Hosea and others is in the process of developing a plan, in conjunction with IFMBE and other international organizations, for both a quick response to Japan's earthquake and tsunami disaster as well as a longer term strategy on how Clinical Engineering groups can help with a relevant and timely disaster response to any disaster in the world that impacts a country's healthcare.

With regard to a quick response to the Japanese disaster, ACCE has been in contact with colleagues in the JACET (Japan Association for Clinical Engineering Technologists), exploring ways ACCE can assist now. Mr. Hideo Takayanagi of JACET (who is coming to speak at AAMI in June) notes the following: "Currently JACET is doing two things to help the tsunami and earthquake victims: Sending volunteer clinical engineers, BMETs, and nurses to the areas in need of medical services as a joint effort of JACET, The Japanese Association of Dialysis Physicians, and The Japan Academy of Nephrology Nursing and collecting and storing in kind, donations from local JACET/ JCHP branches, and sending the right kind of supplies to the right kind of recipients (matching needs and demands of each local evacuation center. The JACET office has been turned into the center for this activity and is filled with boxes and boxes of supplies to be shipped out to the appropriate receiving shelters."

Mario Castañeda, ACCE President stated, "The Japanese Clinical Engineering Society has history with some of us -- attends AAMI, have collaborated with various US healthcare providers,-- is ready and willing to receive individual donations and credit ACCE for the overall contributions. JACET will provide reports of total donations and distributions in accordance with their local country requirements for transparency. ACCE will own and be able to publish all content regarding this collaboration."

JACET's immediate need is money. Donations can be made to JACET, by mail or internet, via the Healthcare Technology Foundation, using PayPal or credit card.

<http://www.accenet.org> or

<http://thehtf.org>

Please reference the Japan Relief Fund.

Longer Term Strategy

With Katrina, Haiti and now Japan demonstrating how profoundly any nation (rich or poor) can plunge into unmanageable chaos after a natural disaster, several Clinical Engineering organizations are looking for ways to play a constructive role in filling the obvious and repeated vacuums of disaster planning and disaster response. Although most of CE expertise is oriented around centralized hospital systems, we know that a large proportion of disaster-related healthcare does not take place in those hospitals. CE expertise may nevertheless be relevant to develop and deploy better emergency, decentralized systems than what we've seen in recent years. The standard medical model can easily break down in any large disaster, and, as the Japanese disaster shows, what starts off as an earthquake and tsunami with crush injuries, can change into a potential nuclear disaster, with profoundly different medical needs and sites of care.

Now may be the right time to take on the areas of Disaster Readiness and Response (DRR) capability as a higher priority focus for capacity development, inter-organizational coordination and professional leadership in the CE community. It's a challenge that requires a mix of local, national, and multi-national capacities, so it shouldn't just be thought of as a procedure manual that a manager keeps on a shelf.

A large-systems view seems essential, so a new kind of alignment needs to take place between a variety of international organizations such as the WHO, professional engineering associations, emergency aid NGOs (non-profits), and military, and government agencies.

The following are some potential projects that could help build a stronger leadership role for CE with government agencies, MOHs, WHO etc., by virtue of CE's inherent system-based lifecycle worldview, supply-chain connections and highly pragmatic skill-sets: Develop a general DRR

systems model, identifying where CEs can provide valuable preventive or response capabilities; Compile research and categorize the various predictable impacts on healthcare systems in disaster situations; Prioritize vulnerabilities by disaster type and other factors (e.g., geography, transportation, communication structure, medical device supply chains, etc.); Identify key learning points, like do's and don'ts, from most recent disaster response events; Identify touch-points where CE expertise can provide better preventive or response capabilities; Compile information from global scientific bodies on possibly disruptive impacts of climate change on healthcare systems and populations (e.g., like loss of water supplies, loss of agricultural capabilities/ malnutrition, environmental refugees/ population migration and dispersion of disease vectors into unprepared areas, rapid superceding of existing hospital infrastructures by mobile health/tele-health technologies); and identify ways that CE expertise can be used to develop and assess new models of care to address large-scale healthcare issues that will occur outside traditional healthcare locations and jurisdictions.

Other roles include the development and maintenance of an international registry of CE DRR organizations, experts, and resources, to assist local and national leaders with guidance on best-practice approaches to preparedness and response. Because of local vulnerabilities, better "healthcare reserve capacities" need to be developed at regional and inter-regional levels that can be rapidly deployed within 24 hours, and international reserves that can be mobilized within a 5000 mile radius within 36 hours. Large hospital systems and public health agencies should coordinate to maintain regional depots of mobile clinics, supplies, patient identification and tracking methods, and communication centers.

Another part of the proposal is to convene a multidisciplinary, multi-organizational forum, including WHO, to share and discuss the above findings and develop a work plan to make healthcare systems more robust, resilient, extensible and responsive to large-scale disaster

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Improving Medication Delivery Patient Safety

Medication delivery systems continue to be a major cause of patient harm in spite of attempts by the industry to improve patient safety such as the adoption of drug libraries. In spite of multiple FDA Class I recalls, the incidence of patient harm continues at an alarming and unacceptable rate.

In the fall of 2010 a Summit on medication delivery systems, convened jointly by the FDA and AAMI with support from ACCE, was held in Washington DC in which over 300 participants attended. Presentations are available on the AAMI web site. ACCE members presented the challenges many clinical engineering departments face when confronted with recalls that correct a product deficiency but do not impact their patient safety experience. The outcome of this Summit led to the development and publication by AAMI of 5 clarion themes

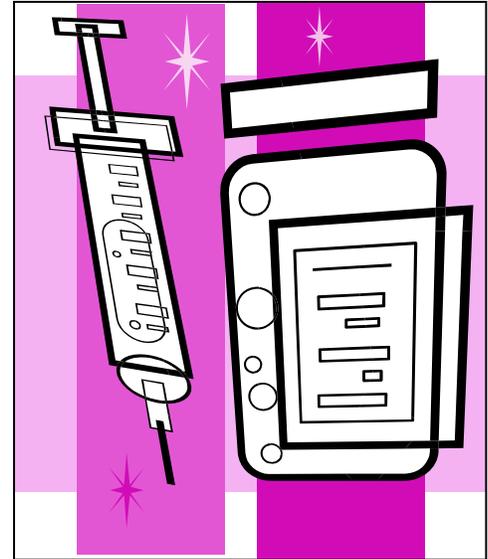
(http://www.aami.org/infusionsummit/AAMI_FDA_Summit_Report.pdf).

In January of 2011 AAMI assembled an Infusion System Safety Council (ISSC) with representatives from FDA, AAMI, ECRI Institute, ACCE, BMETs, Physicians, Pharmacists, Nursing, Human

Factors Engineers, and Industry (<http://www.aami.org/infusionsummit/index.html>). The purpose of the ISSC is to set a course to improve safety for medication delivery systems with a view that solutions will take the coordination of a multidisciplinary approach to this System-of-Systems. The work of the ISSC is in close collaboration with the IEC Standards Bodies to develop next generation Standards. The ISSC Mission is: "No patient will be harmed from a drug infusion".

The ISSC Vision statement is: "By 2016, adverse drug events will be rare because healthcare systems will have a fully integrated drug infusion delivery system that: seamlessly and immediately connects the physician order to the drug delivery mechanism; positively identifies the drug for each patient regardless of location; and is safe, effective and affordable. Patient safety will be assured by continuous detection of early triggers, with direct and appropriate notification to a patient rescue system."

The ISSC has divided the effort into 9 working groups, each of which has supporting goals to achieve the Vision and deliverables to support these goals.



The tasks ahead of the ISSC require significant volunteer resources in which ACCE members are invited to participate. These working groups are currently determining the scope of effort and assembling project plans. This is an opportunity for ACCE members to participating in advancing the safe and effective application of infusion devices and systems in patient care.

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Global Disaster Relief: How Can ACCE Help? continued

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situations. Much of this knowledge probably already exists in relief organizations and government agencies of various sorts; but some of this needs to be designed and tightly organized in a more purposeful, coordinated way than what exists now.

Adriana Velazquez, of the World Health Organization, reveals that there will be a session to address these issues at the 5th European IFMBE Congress scheduled for Budapest Hungary, September 14-18, 2011. The IFMBE/CED Special Session: Disaster preparedness for HTM, to be chaired by Yadin David, with James Wear and Ismael Cordero as faculty as well as other selected authors from their open

call for papers. The session is described as: *Recent disasters in Europe, the Caribbean (Haiti), Asia and the Americas demonstrated a need for communities to be better prepared and for hospitals to make their systems more resilient. This session will share experiences learned from these disasters and will review strategies for engineering planning, preparation and management of healthcare assets that are needed to be implemented before, during and after a disaster event occurs.*

Once again, responding to human tragedy is not usually associated with clinical engineering preparations. But, human tragedy history shows that better outcomes could have been achieved, human suffering reduced and lives saved, if only a few more things were better prepared. When it

comes to technology we should be trained, prepared and operate with as little diminishing level of service as possible. We owe this to people, to be the best support we can and how can you if you're not prepared? We never know where or when the next disaster will occur, but IF we are prepared we will know what to do when the next disaster occurs.

Look for more information on CE disaster preparedness in upcoming issues of the ACCE News and on ACCE's web site.

Tom Judd

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ACCE Announces Several Awards for 2011

The ACCE is proud to announce the following 2011 awards:

ACCE 2011 Challenge Award

Robert M. Dondelinger, CBET-E, MSA, of the US Military Entrance Processing Command in North Chicago, IL. Is the winner of the ACCE Challenge Award. This award honors an individual who is not presently an ACCE member, but eligible for membership, for their achievements within the field of clinical engineering (CE). Bob was selected in acknowledgement and respect for his ongoing professional writing and various other support activities for the CE/BME community in USA healthcare.

Bob has a M.S. in Business Management (healthcare management) from Central Michigan University, is a member of the AAMI Medical Equipment Management Committee, the Biomedical Instrumentation & Technology (BI&T) journal Editorial Board, and is one of the few practitioners who can view the field with the keen eye of a healthcare business manager. A 32-year career soldier, beginning on the bench and advancing to a Medical Maintenance Officer, his work experience ranges from running the smallest one-person biomedical shop in the Army to reaching the capstone rank of Chief Warrant Officer Five and leading the largest biomedical maintenance team in the free world. After retiring from the U.S. Army, he continued his public service with the US Military En-



Robert M. Dondelinger

trance Processing Command, having primary responsibility for medical logistics at 65 Military Entrance Processing Stations (MEPS) scattered from Honolulu to San Juan. Over the past forty years in public service, Bob made significant contributions to the success and expansion of both the biomedical maintenance and CE fields. For most of his career, he provided leadership, guidance, and mentoring to new biomed and has continued to do so by sharing his expansive knowledge with others in his field through his writings. Bob has become admired by his peers and highly respected by his co-workers and chain of command.

ACCE Tom O'Dea Advocacy Award

Jack Spears, is the Tom O'Dea Advocacy Award winner for his many years of publishing for the medical device and health IT community, bringing strong focus to the significant impacts of the clinical engineering profession.

Jack is President & CEO, TriMed Media Group, Providence, RI, and group publisher of the media titles Health Imaging & IT, CMIO, Cardiovascular Business, Molecular Imaging Insight as well as affiliated newsletters and websites. He started TriMed Media Group in 2003 and has since grown the company several fold. He is launching MedicalPartsXchange.com, a cloud-based exchange for the buying and selling of repair and replacement parts for medical equipment in 2011.



Jack Spears

From 1985-1998, Jack was the owner of HealthTech Publishing Company of Providence, R.I., then sold to Medical World Communications (MWC), a multimedia company. From 1998 to 2001 he served as Group Publisher for MWC. In 2001, he left to found MedNeti, an online web site content company for pharmaceutical and medical devices companies. Jack's earlier training and experience was in CE, having worked for St. Joseph's Hospital in Asheville, N.C., and then as a Regional Service Manager with American Medical International in Charlotte, N.C., providing multi-vendor, multi-modality services to their hospitals and clinics throughout the Eastern US. He is married and lives with his family in Barrington, RI.

ACCE/HTF 2011 Shepherd Patient Safety Award

Frank Painter, MS, CCE, FACCE, is the 2011 Shepherd Patient Safety award winner, for his long-term work in many aspects of safety - teaching, publishing, accident investigations and more. Frank is a consultant in Trumbull, Connecticut, with 35 years of CE experience.

Currently, he is CE Internship Program Director at the University of Connecticut and directs the only graduate level CE educational program in the US. Frank has a B.S. in Engineering from Clarkson University, a M.S. in Engineering with specialty in BME from SUNY at Buffalo, is a CCE through the ICC, and Fellow of ACCE. Previously, he served as Director of CE at two large teaching hospitals, and served as Executive Director of a regional ISOt.

Through his HTCC and ICC leadership roles, Frank has embedded his patient safety perspectives into CE certification. He is also a consultant with PAHO and WHO, and manages ACCE's Advanced Clinical Engineering Workshops, promoting CE safety practices globally. His patient safety consulting practice includes medical device incident and accident investigations, evaluation of user practices and other factors to reduce risk, and expert witness and consulting for attorneys on a wide range of topics www.tmsllc.com/expert/RecentCases.htm Frank has pre-

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ACCE Awards for 2011



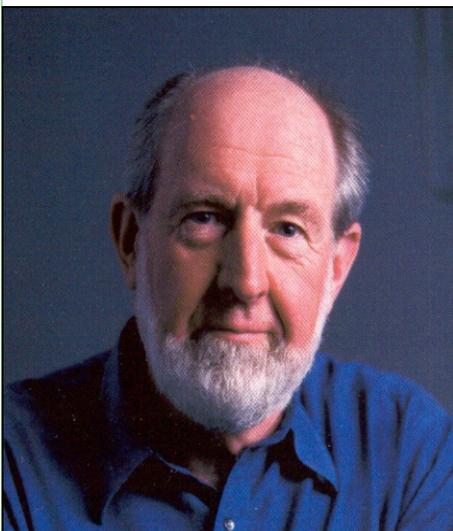
Frank Painter

sented and published regularly on a wide range of patient safety topics.

ACCE Lifetime Achievement Award

ACCE's 2011 Lifetime Achievement Award winner is Malcolm Ridgway, PhD, CCE for his over 50 years of excellence in many aspects of the clinical engineering profession.

Malcolm has spent most of his professional career with one organization. In 1974 he helped the Hospital Council of Southern California obtain a grant from the W K Kellogg Foundation to start one of the



Malcolm Ridgway

nation's first biomedical engineering shared services. Today, 37 years later, he is still actively involved with that organization, now known as Masterplan. Prior to that, he spent two years as the Associate Director of the Biomedical Engineering Institute at the University of Southern California; six years as a systems engineer at two aerospace companies; and seven years as an in-house biomedical engineer at the 600 bed Royal Infirmary in Edinburgh, Scotland. He started out in this field fifty two years ago, in 1959. He has a Bachelor's degree and a PhD in biomedical engineering from the University of Edinburgh.

Other highlights from Malcolm's career include: While at the University of Edinburgh, in 1961, he developed a swallowable telemetry capsule (known as the Radio Pill) that transmitted 4 or 5 days worth of continuous pressure readings from the human alimentary tract; He was involved in developing several early patient monitoring techniques for isolated kidney transplant patients; At Bendix Aerospace, he was on the team that designed the science packages the early astronauts carried to the Moon; At TRW, he helped design life detection instrument placed on the planet's surface during the 1976 US Viking mission to Mars, and helped design an implantable 10-year plutonium power supply for an artificial heart using space technology.

A true pioneer in the Clinical Engineering world, Malcolm was a member of the 1st AAMI Board of Examiners for Clinical Engineering Certification from 1974 to 1977; he was one of the CEs who successfully challenged assertions from Ralph Nader about the dangers of "microshock"; He later joined with ASHE in blocking efforts by NFPA to require isolated power in inhalation anesthesia acute sites and he gathered hospital survey data to champion the case for not totally banning the use of ethylene oxide sterilization.

Later in his career, Malcolm initiated a project using Reliability Centered Maintenance to establish a more rational basis for PM intervals.

Has been described as one of the "lead ducks" for his many years co-moderating the Technical Iconoclast Roundtable at the AAMI Annual Meetings to help keep the

CE profession from taking itself too seriously.

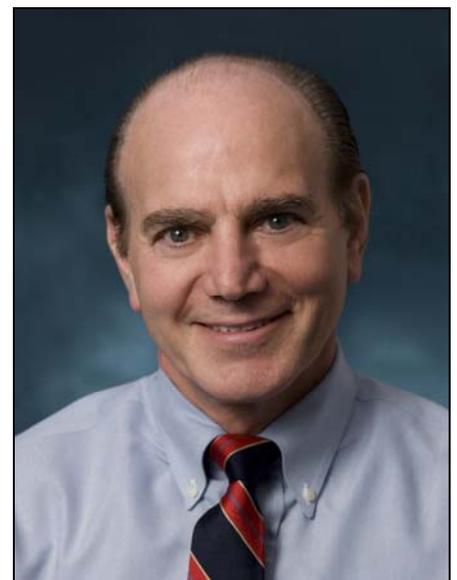
He has given countless technical presentations, and authored many technical papers and has been the recipient of AAMI's Best Paper in BIT Award on 3 separate occasions; his most recent contributions to the profession's training literature have been in the areas of customer service and Failure Modes and Effects Analysis.

Over the years he has been the recipient of a number of professional achievement and leadership awards including the ACCE's Professional Achievement Award in 2003; and the ACCE's Marvin Shepherd Patient Safety Award in 2007.

ACCE Lifetime Achievement Award

Also, a 2011 Lifetime Award winner is Yadin David, Ed.D., CCE, PE, FACCE, FAIMBE, FACFE for his ground-breaking work to develop and establish the CE profession and HTM practice nationally and globally. URL: www.BiomedEng.com

ACCE: Over the span of 35 years, Yadin has worked with colleagues and societies to provide a platform and focus on CE issues. He brought together leaders from ASHE, IEEE/EMBS and AAMI in 1989; and then hosted a small group of CE leaders from around the country in Houston, Texas in 1990 to consider establishment of ACCE. The first year, ACCE membership was made up of just 37 practitioners.....



Yadin David (Continued on page 8)

ACCE Awards for 2011

(Continued from page 7)

Today the ACCE name is respected world-wide.

HTF: Dr. David worked to bring the CE voice to the attention of members of Congress through the IEEE/EMBS Healthcare Engineering Policy committee. When funding of projects such as CE certification became an obstacle, with a group of colleagues Yadin helped established the Healthcare Technology Foundation (HTF). Today this group of senior CEs is focusing on bringing needed tools for successfully protecting patient safety in increasingly networked healthcare.

WMTS: The advent of HD TV broadcasting started with competition for RF spectrum among them with the space used for ECG telemetry systems. Working together with ASHE and AHA, Dr. David helped educate the FCC about the competing needs and benefits of having WMTS (wireless medical telemetry) for medical applications. For that he was awarded an FDA Special Citation for protecting the public safety when medical telemetry was awarded its own spectrum for the first time ever.

Disaster Relief: When disaster struck Haiti, Dr. David cooperated with other organizations to mobilize critically needed technology support teams. Working closely with PAHO and other non-government Organization like EarthMed, he organized over 120 volunteers to help and to donate power generators, compressors, and bottled water for the needy.

Education: Dr. David started his engineering education in Israel and then received his MS and Ed.D. from West Virginia University. He is a PE, CCE, Diplomate of the American Forensic Engineering College, and Fellow of ACCE and AIMBE.

CE/HTM Leadership: He spent 25 years building the Biomedical Engineering department at Texas Children's Hospital in Houston, where he established research and internship programs, technology evaluation strategy and forensic engineering methods, as well as RF management and CE-IT collaboration governance. In addition to receiving his CEO Patient

Safety Award, his program twice received the ECRI Institute Health Devices Achievement Award for HTM outcomes.

More: 15 years ago, Yadin saw the need and to extend medical expertise to remote communities both locally and globally. He helped to initiate the Center for Telemedicine and e-Health Law (CTeL) in Washington, DC and served as its first president. He designed and started, in Houston, the first Pediatric Telemedicine program in the nation still delivering needed care today.

At present, Dr. David is working on consolidating the global framework for CE through his chairing of the CE Division of the International Federation for Medical and Biological Engineering (IFMBE). Through relationships with WHO, PAHO and a world-wide network of national CE societies, a new platform for connecting CEs globally has been established. One project initiated recently is the training of CEs in emergency preparedness protocols. Dr. David has authored and co-authored several books and hundreds of manuscripts, many that have been translated into Spanish, Portuguese and Mandarin.

ACCE 2011 Professional Achievement in Management Award/ Managerial Excellence Award

The Professional Achievement in Management Award winner is Henry Stankiewicz, Jr., MS BME, for his many years of leadership in the Department of Veterans Affairs (VA) BME Program. Of note is his role in mentoring biomedical engineers, technicians, interns and students. "Hank" has done this at the Boston and New England VA medical centers, the VA's technical career internship program, the University of Connecticut CE Masters program, and the Boston University & Wentworth Institute 'co-op' programs.

Hank received a BE in EE from Villanova University in 1973 and an MS BME from Drexel University in 1975. He started work with the VA in New York and New Orleans before finally settling in the Boston area. At the Boston VAMC, he established intern and co-op programs which he expanded to all of VA New England. "Graduates" of these programs have gone

on to successful VA and private sector careers where they too have mentored new staff. He is a founding member of the VA Biomed Advisory Board, a hospital based group which advises VA headquarters management. He established the first VA BME Consolidated Program and his program is nationally recognized as a VA "best practice". For his work at the Boston VA and then the VA New England he has twice been recognized as "VA Biomedical Engineer of the Year". He has been fortunate to lead and have the support of talented staff at the 11 Medical Centers of VA New England, in his role as the Clinical Engineer Manager for VA New England.

In addition to his leadership and roles within the VA, Hank is very involved with professional societies. While at Boston, along with Dave Harrington and others, Hank founded the Medical Device Society. This local BME society further provided a platform for stressing the importance of continuing education for BME staff. He is a member of the ACCE Advocacy Committee, former VA representative to the CE certification program, on the Board of Directors of the HTF, and a member of the Biomedical Engineering Council. He is a frequent speaker at AAMI, VA, and local conferences, and two opportunities as faculty in the ACCE ACEWs www.accenet.org/default.asp?page=about§ion=international.

Hank met his wife Linda, a nursing supervisor at the VA Boston Cardiac Care Unit, when he took an exceptionally long time to install a new patient monitoring system!



Henry Stankiewicz, Jr

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ACCE Awards for 2011 continued

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ACCE 2011 Professional Achievement in Technology Award/ Professional Development Award

The Award winner is Rickey L. Hampton, BSBE, for his efforts in advancing the understanding of radio spectrum and wireless device management in healthcare. Rick presents frequently on all manner of radio technology through written articles, webinars, and seminars. He also serves on the Editorial Board for AAMI and often contributes to the writings of others. Rick has been involved in the development of several standards and guidance documents related to the safe use of wireless in healthcare including AAMI TIR-18, IEEE 11073-00101, and most recently, IEC-80001-1 and its associated Wireless Technical Report.

Rick has been the Wireless Communications Manager for Partners HealthCare System, Boston, Massachusetts, since 2002. He has held both FCC amateur and commercial radio licenses for the past 37 years, rounded out his knowledge with 14 years of combat communications radio systems in the Air National Guard, and received his BS Biomedical Engineering, from Wright State University, in 1986. He has served in the clinical engineering field for 25 years.



Rickey Hampton

Antonio Hernandez International Clinical Engineering Award

The Award winner is Niranjana D. Khambete, BE, M.Tech., PhD, Engineer Grade 'F' and Scientist In-charge of Instrumentation Laboratory at Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum, India, for his leadership and commitment to the growth of CE Profession in India.

Dr. Khambete received his bachelors degree in Instrumentation Engineering from the College of Engineering, University of Pune, in 1990; his M. Tech. in BME in 1992 from Indian Institute of Technology, Bombay and his PhD in BME in 2000 from Department of Medical Physics and CE, Royal Hallamshire Hospital, University of Sheffield, UK. He worked as an Engineer in Medical Electronics Division of Larsen and Toubro Limited, India, in charge of the production unit for the Central Nurses Station. Since 1992, he has been working as an Instrumentation Engineer in SCTIMST, an 'Institute of National Importance' in India, a tertiary care hospital and a leading BME development and research center for the country.

Dr. Khambete has been actively involved and leading the efforts towards obtaining a formal recognition to the CE profession in India. The 1st ACEW in India in 2009 was organized with his initiative and he has actively followed it up by organizing a 2nd International CE Workshop in February



Niranjana D. Khambete, PhD

2011, with faculty from the UK. He has been closely involved in development of academic and training curriculum for the three-Institute joint Masters in Technology CE program, the first of its kind in the country and continues to work as a co-coordinator for this course. As secretary of the BME Society of India, he plans to lead efforts aimed at formation of national certification for CE in India.

In collaboration with the CDAC, Trivandrum, India, he initiated and is supervising a project for indigenous technology development of safety testing and calibration equipment used by CEs for testing of medical equipment in hospitals. Recently, he received an award from WHO Patient Safety for a paper on medical device safety in hospitals in the city of Pune, India, presented at a meeting in London organized by Institute of Engineering and Technology, UK, in May 2010.

In research and development, Dr. Khambete has been contributing to the BME needs of India for last two decades. He worked as the leader of the team which successfully completed the development and commercialization of indigenous technology for Concentric Needle Electrodes. This work is continued through development of technology for other bio-electrodes. Dr. Khambete also has a keen interest in research on movement artifact free apnea monitors and early detection of cervical cancer in women, both involving development of instrumentation for bio-impedance spectroscopy.

ACCE / ORBIS 2011 International ACEW Award

An award created by ORBIS International www.orbis.org and ACCE in 2010, given to the organization demonstrating significant improvements in national HTM structure and outcomes since ACCE and its partners conducted Advanced Clinical Engineering Workshops (ACEWs) in their countries.

The winner is CENETEC – the National Center for Health Technology (HT) Excellence – led by Director General María

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More ACCE Awards for 2011

(Continued from page 9)

Luisa González Rétiz, MBA. HT colleagues from Mexico have participated in several ACEWs, beginning in 1991, and hosted others, eg, in Mexico City and Mazatlan in 1998.



María Luisa González Rétiz, MBA

CENETEC's creation has its origins in 2001, when Dr. Enrique Ruelas Barajas, Vice Minister of Quality and Innovation of the Mexican Ministry of Health (MoH) invited Adriana Velázquez Berumen, to join his work team. As a practicing CE with an MS CE, Adriana was asked to provide a group to consult on topics related to HTM and HT Assessment (HTA), two elements identified by health leaders as key contributors increasing quality of services provided by health units. Due to excellent results obtained by Adriana's group, responding to the need for objective information on appropriate HTM and HTA for decision and policy makers, the MoH CENETEC unit - with four initial employees - was created in 2004.

In 2011, CENETEC is organized in four main programs: Biomedical Engineering (or HTM), HTA, Telehealth, and Clinical Practice Guidelines. CENETEC programs and products are planned, in accordance with the World Health Organization (WHO) Health Technologies Resolution WHA60.29, of May 2007. In 2009,

CENETEC was designated Collaborating Center for WHO. Since October 2008, CENETEC has been led by María Luisa González Rétiz, Biomedical Engineer. In February 2011, a new organizational structure was approved, resulting in CENETEC now having 67 employees.

CENETEC acts a technical advisor on HTM and HTA in the Mexican MoH. Its contributions for Telehealth, Clinical Practice Guidelines, HTM and HTA have measurably helped to improve the quality of medical services nationally. CENETEC's recommendations are based on the best evidence available to facilitate the decision making process for health authorities while they incorporate, modify or exclude health technologies in the Mexican Health System.

Tom Judd

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ACCE Student Paper Awards for 2011

Every year ACCE sponsors a student paper competition. This years winners were:

First place: Pratyusha Mattegunta, University of Connecticut, for her paper: *Medical Device Integration of Neurodiagnostic Equipment with Hospital EMR/HIS.*

Second place: Allie Paquette, University of Connecticut, for *Video Integration and Procedure Room Design Planning* and

Third place: Sharareh Taghipour, PhD Candidate, Centre for Maintenance Optimization and Reliability Engineering, University of Toronto, for *Prioritization of Medical*

Equipment for Maintenance Decisions.

Congratulations to these three young women for their outstanding contributions to the field of Clinical Engineering.



Pratyusha Mattegunta



Allie Paquette



Sharareh Taghipour

The View from the Penalty Box

Over the past few weeks I have been spending a lot of time on several projects. One is trying to set up the educational programs at our upcoming regional symposium that will be held in November of this year. Since this is something that I have done many times in the past I thought no problem. Let me admit that I was wrong and doing an educational program for engineers, technicians, managers or some wannabes is not easy and takes a lot of patience. The Society did do a survey asking over 400 people what they would like for educational programs and got 79 replies. Not bad many of you may be thinking, but 41 of those 79 have more than 20 years of experience in the field, while at the other experience end, 20.3% of the respondents showed less than 4 years in the field. We listed over 100 topics into 3 general areas, technical, technical management and departmental management. The results were interesting. The top 7 items, in priority order, in the technology area were: Computer Networking, Basics of anesthesia, Computer hardware diagnostics, Ventilator testing, Basics of X-ray and Certification Review.

In the technology management area there were some additional surprises. The results were: Future of Clinical Engineering, Managing medical networks, Equipment planning, Device integration, ISO 80001, Clinical alarms, and RTLS/RFID. If concern about the future of Clinical Engineering is that high, maybe ACCE needs to become more vocal and involved.

The department management area was nothing earth shaking, as the results were as follows: Working with the IT Department, (I wanted to add "without killing the SOB's" but got voted down), Project management, Benchmarking department performance, Measuring productivity, Best practices round table, Establishing budgets and Motivating your employees.

Now we just have to confirm what the membership wants and find the speakers to deliver what was asked for. You can follow the progress of the program by visiting www.nesce.org from time to time and looking over our program.

The next project that I am involved with

is setting up training programs to bring more people into the medical equipment field. We have over 400 manufacturers and suppliers of medical devices and products here in Massachusetts but with only one functioning Biomed program that graduates about 10 students per year. Working with the Department of Labor and other agencies we are putting together programs that can be taught at the community colleges and also used for re-training of people who have been downsized. This has been an interesting project as finding information on the jobs has been an adventure. Many of the jobs are listed under names that we do not think of as being in instrumentation. I was surprised to learn that one of the former biggest employers of BMET's no longer employs them but now employees BESS, or Biomed Equipment Support Specialists. That former major employer is the VA system and those positions are not listed under BMET's, BioMeds, Equipment Support Techs and several other versions which mean that the open positions are undercounted by the Labor and Education departments at the federal and state levels.

Further digging into the existing programs shows that many people with excellent skills are forced out of our field by one course that too many of the existing programs require and that course is calculus. It is useless for a biomedical technician, and for many engineers, but somehow is still required. This is also steering high school students away from our field. We really need to look at what we need for training of our technicians that do the majority of the work on equipment. We also need to encourage them and support them with time away from work to gain new knowledge.

My last project is helping equip clinics in various parts of the developing world with quality equipment and training programs to support the use of the equipment and the support of the equipment. We are headed for some major problems as many of the manufacturers will not share information on the repair and calibration of devices. This is driving health-care costs ever higher and frustrates all of us that are trying to provide good health-care at reasonable costs all over the

world. We need to take up the "power of the pen" on some of our suppliers and dictate to them what we will pay for service if we purchase their equipment and what we want from them in support documentation. We have all seen too many service tickets from the big boys with a "cannot duplicate" or "no problem found" with a charge in the thousands. We need to work together to stop these overcharges and reduce costs. More on this topic in a future View.

So it is off to the rink to watch a grandson finish off his youth hockey experience as next year it is high school or juniors.

Have a great Spring!

Dave Harrington

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In Memoriam

Paul S. Ostrowski

Long-time ACCE member and Veterans Administration clinical engineer Paul S. Ostrowski of Warren Michigan, passed away on Saturday April 9, 2011 at Providence Hospital in Southfield Michigan. Paul was born October 9, 1953 in Detroit. Paul leaves his beloved wife Susan, mother Doris "Winnie", brothers, sisters and nieces and nephews. Paul is the son of the late Dr. Arthur Ostrowski.



Paul will be missed by his many friends and colleagues in the clinical engineering community.

Perspectives from ECRI Institute: Proud to Serve as President-Elect

For the last couple of issues of ACCE News I've given a few of my ECRI Institute colleagues opportunities to share their perspectives from ECRI Institute in our newsletter. So I haven't taken the chance to formally thank my fellow ACCE members for electing me as President-Elect for the ACCE Board. I am honored and excited for this opportunity and look forward to serving ACCE's members and supporting our President, Mario Castaneda, and the rest of our Board.

I recently wrote an entry for ECRI Institute's [Patient Safety Blog](#) entitled "[From Unsung Hero to Most Valuable Player](#)". My blog referred to my high school wrestling days and how I was named the unsung hero for our team during my senior year. I compared my pretty good wrestling career to the "most valuable players" on our team. Our team was undefeated during my senior year. I helped keep that undefeated string going during some key matches. But the "most valuable players" were the leaders of our team and the main reasons for why we were undefeated that year.

The clinical engineering profession is

often referred to as the unsung heroes on the healthcare team. We are best known for the supporting and "in-the-background" roles we play for our organizations. As we all know, health technology is changing at a rapid pace. Managing this change will prove to be extremely challenging for the healthcare organizations we work for. The clinical engineering profession is in a perfect position to help manage this change. However, in my opinion, we can't do this if we just serve in a supporting or unsung hero role. We need to step up and become the health technology leaders or "most valuable players" for our organizations.

I think that one of the most important goals for ACCE is to help put our members in a position to take on that health technology leadership role. We also need to work hard to expand the membership in ACCE so that we can help many more individuals serve in this capacity. Wouldn't it be nice if the ACCE membership was at least as large as the number of hospitals in the United States? I agreed to run for, and now serve as, President-Elect of ACCE's Board because I would like to help make this hap-



Jim Keller is ECRI Vice President for Health Technology Evaluation and Safety, and ACCE's President-Elect

pen. I am very interested in hearing ideas from my fellow ACCE members about how you think we can grow our organization – in membership and stature.

Jim Keller, ACCE President-Elect

jkeller@ecri.org

ACCE Alarm Management Initiatives

ACCE has agreed to partner with AAMI and ECRI Institute in hosting a Summit on Alarm Management in the Fall 2011.

Alarm fatigue has become a significant patient safety issue in all patient care settings. ACCE Healthcare Technology Foundation published in 2006 "Impact of Clinical Alarms on Patient Safety" which brought attention to this patient safety issue. More recently ECRI Institute has named alarm hazards in the top ranks of its Top Ten Health Technology Hazards list for the past three years. Recent news articles and national television segments have brought this issue into public focus. Far too many alarms are occurring in patient care settings leading to clinician desensitization of clinically actionable alarms and resulting in avoidable sentinel events. Data on the extent of

this problem is scarce, but anecdotal information suggests that the typical multi-parameter monitor generates over 250 alarms per patient per day, with only a handful requiring clinical intervention.

Infusion devices and ventilators contribute to the unnecessary noise and distractions at bedside. Health care providers are looking for leadership to solve this vexing problem, especially given the proliferation of bedside medical devices that aim to improve patient care, but instead are compromising patient safety with too many false and clinically non-actionable alarms.

This challenge requires the close collaboration of Clinical Engineers, Clinicians, Standards Bodies, and Industry. A special issue of AAMI Horizons publication, to be published this Spring, will be devoted to

the topic of alarm management. An ACCE sponsored session at the AAMI National Meeting will present perspectives on the issue from Clinical Engineering, Industry, and ECRI Institute. ACCE is joining forces with AAMI and ECRI Institute in organizing a Summit modeled after the successful Medication Delivery Summit last fall. ACCE members are encouraged to engage in this important effort since Clinical Engineers are the stewards of the safe application of medical devices in their Institutions. To get involved please contact any of the ACCE officers. We need voices to help define the problem and guide solution for both current and future medical device technologies.

Jim Welch

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ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

ACCE Calendar

Teleconferences

May 5: HL-7 Interfacing

May 19: Negotiating Service Contracts

Events

June 25-27: AAMI Annual Conference,
San Antonio Texas

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-CCE Exam Review Class

Thursday and Friday – June 23 and 24, 2011

San Antonio Convention Center

Prepare for the CCE exam. This class will be presented by eight ACCE Faculty who are CCEs. The class will outline and present the material in each of the main subjects covered on the exam. A mock exam as well as a session on the oral exam will be presented.

Sign up by registering with the ACCE Secretariat (secretariat@accenet.org). The registration fee is **\$450 for ACCE members, \$495 for non-members (25% membership application discount)**. All attendees will receive an electronic version of the ACCE- CCE Study guide and the review course presentation materials.