

# ACCE News

Newsletter of the  
American College of Clinical Engineering

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July/August

## Presumptive President's Report

In a past issue of the ACCE newsletter, Steve Grimes, immediate past president of our organization, said, "There are fundamental changes occurring in our industry. Ultimately the key to our success in effectively addressing these changes remains active participation of our professional community."

As the new president of the American College of Engineering, I couldn't agree more. I am truly honored and humbled to be associated with the amazing collection of talent that makes up our organization's membership. Together, we have the opportunity to build an even stronger organization by capitalizing on our past accomplishments and recognizing the opportunities that are before us. I have been privileged to serve on the ACCE Board of since 2004. It has been one of the great joys of my career to see how much our organization has grown and prospered in such a short time.

What's more significant, however, is the bright future that lies ahead for ACCE. We have been fortunate to positively affect the lives of our members in our first 19 years. We can only speculate on what the future holds, but I'm confident that the founders of the College would be impressed if they could see what we've accomplished and what's in store for the future.

I look to the next two years knowing that my predecessors have set very high standards of

leadership. Steve Grimes (2006-08) and Izabella Gieras (2004-06) have, during my time on the ACCE Board, demonstrated exceptional vision and a tremendous determination to make the College a more valuable part of its members' lives. We owe them all, and the past presidents before them, a great deal of gratitude.

We will continue to rely on the invaluable contributions of others who deserve our thanks: previous board members, committee chairs, newsletter authors, symposium speakers; and all the ACCE members who have given generously of themselves, making possible the College's many programs and services. As president, I want you to know your efforts are recognized and appreciated.

One of our goals is to make your membership more valuable and we are constantly adding to our programs and services. Please review this newsletter and our website,

<http://www.accenet.org>, for more information on our activities and services. ACCE membership places you among a very select group that has earned many benefits. We hope that you will take advantage of those that our College provides.

Again, I want to thank all of you and encourage your in-

volvement in the American College of Clinical Engineering. I look forward to sharing my vision of the College with you in future issues of the ACCE Newsletter, and I welcome your suggestions and feedback.

We have many, many exciting opportunities ahead of us, and I know that together we can continue to build ACCE into the world's preeminent clinical engineering society.

Looking forward to working with all of you!

Jennifer Jackson, President-Elect  
[jenniferljackson@yahoo.com](mailto:jenniferljackson@yahoo.com)

*Editor's note: Jennifer Jackson is running unopposed for President of ACCE and the election will close about the same time this issue goes to press, thus the label: "Presumptive President"*

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## Membership Renewal

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

ACCE

5200 Butler Pike  
Plymouth Meeting, PA 19462

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[Secretariat@accenet.org](mailto:Secretariat@accenet.org)

## Canadian CCE Exam

At the recent CMBES conference in Montreal, Bill Gentles gave a progress report on the restructuring and revival of the Canadian CCE program. The draft proposal includes the following: The Canadian Board of Examiners would piggyback on the recently developed US structure, the Canadian Board of Examiners would be accountable to the Health Technology Certification Commission (HTCC), the US Secretariat would administer the process, and certification would be issued by the HTCC. (In the past they were issued by the International Certification Commission, which no longer certifies Clinical Engineers).

The Canadian CCE process would use the rigorous exam process that has been developed in the US by the ACCE and administered by the HTCC. The US-specific questions will be removed from the pool of questions used for Canadian written exams and Canadian-specific questions would initially only be asked in the oral exam, which is taken after you pass the written exam. The proposed costs for certification are as follows: Application fee US\$375, exam at Canadian site US\$150, renewal fee US\$100/3 years (renewal is contingent on proof of being active in the field by answering a questionnaire.)

The next steps that are planned to implement this program are as follows: all currently certified clinical engineers in Canada would need to apply for recognition under this new structure; the Canadian Board would need to see evidence of current practice in Clinical Engineering in the form of a completed questionnaire; and there will be a time limit to this "grandfathering", after which everyone would need to take the exam.

This proposed action plan met with broad approval at the CMBES meeting, and comments are welcome.

Bill Gentles

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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

## CCE Certification: New Applicants and Renewals

1. The next CCE exam will be given in November 2008 in 28 cities around the US. The deadline for applications is August 16, 2008. Please see the website: <http://www.acce-htf.org/certification> to view the handbook and application for this exam.
2. In 2007, ACCE released the results of the new "Body of Knowledge Survey". The US Board of Examiners for Clinical Engineering, chaired by Patrick Lynch, made adjustments in the mix of questions based on that survey. The changes are included in the 2007 CCE Handbook which is available on the ACCE-HTF website.
3. Renewal: CCE renewal is required once every three years. The CCE Renewal Handbook and Renewal Application Form can be downloaded from the CE certification website: <http://www.acce-htf.org/certification>. The renewal fee can be paid by check or by credit card on the ACCE HTF website.
4. Any questions can be directed to Cheryl Shaw, the certification program's secretariat, at [certification@acce-htf.org](mailto:certification@acce-htf.org).

## ACCE News

*ACCE News* is official newsletter of the American College of Clinical Engineering (ACCE). *ACCE News* is a benefit of ACCE membership; nonmembers may subscribe for \$60.

To subscribe e-mail [Secretariat@accenet.org](mailto:Secretariat@accenet.org)

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# ACCE Nominees for the Board of Directors



President  
**Jennifer L. Jackson**  
Partners Healthcare



President-Elect  
**Mario Castaneda**  
Kaiser Permanente



Vice President  
**Paul Sherman**  
VA Center for Engineering and Occupational Safety and Health



Secretary  
**Jim Welch**  
Masimo



At Large Board Member  
**Arif Subhan**  
MasterPlan



At Large Board Member  
**Izabella Gieras**  
Beaumont Hospitals



Immediate Past President  
**Stephen L. Grimes**  
Technology in Medicine

## Report of the ACCE Nominating Committee

The above candidates, having expressed their desire to serve the College, have been nominated for the offices as indicated.

The following officers and directors are continuing in unexpired terms:

Treasurer— Julio Huerta - Aramark

At Large Board Member—Tony Easty— University Health Network

At Large Board Member – Colleen Ward – UC Davis Medical Center

Respectfully Submitted,

ACCE Nominating Committee 2008:

Steve Grimes (Chair), Ray Zambuto, Elliot Sloane, Jennifer Ott, Frank Painter, Izabella Gieras

# Book Review: A Practicum for Biomedical Technology & Management Issues (Leslie Atles, Editor)

Leslie Atles has undertaken an impressive effort as editor in putting together a book designed to help broaden the knowledge and enhance the training of biomedical technicians and clinical engineers. This book is a joint effort that includes contributions from many of the profession's leading experts. The list of authors reads like a who's who in clinical engineering.

The 958 page hardbound book is divided into fifty five chapters grouped into three main focus areas: Management (chapters 1 through 29), Technologies (chapters 29 through 38), and Reference Information (chapters 39 through 55).

The management section covers current clinical engineering management issues such the Joint Commission, use errors, collaboration between clinical engineering and information technology, benchmarking and human factors engineering.

The technology section, the shortest section of the book, covers biomedical technology topics such as laboratory equipment, PACS, RFID, DICOM and telehealth.

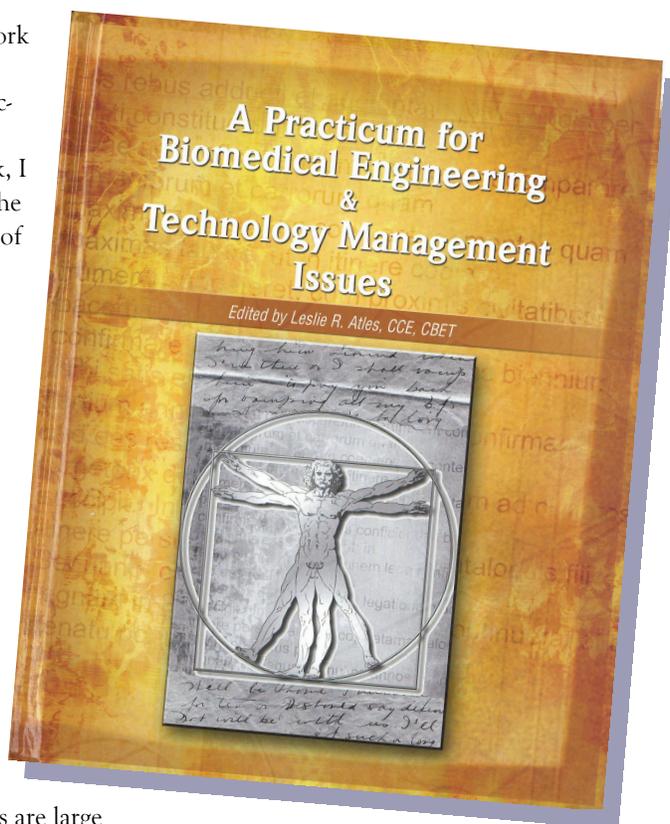
Chapters 39 through 55 provide useful reference information for both aspiring and practicing clinical engineers and biomed. These chapters are particularly useful for those preparing for the CBET exam since it contains, in a glossary format, information such as electrical safety codes and standards, cardiac physiology, defibrillators, and digital electronics. This section, written by Leslie Atles and Scott Segalewitz, is an updated version of the Marquette Affinity Reference Guide, which was published over thirteen years ago. The original manifestation of the guide was a small and inexpensive spiral-bound book that easily fit into one's lab coat pocket and served as a handy reference

for one's everyday work in a hospital. Even though I find this section to be a worthy addition to this book, I kind of wish it had the pocket guide format of the original edition.

Although more than 25 different authors contributed to the different chapters, the book manages to remain fairly consistent in the style and clarity of writing. I found all of the chapters to be very approachable and practical in nature with plenty of useful figures and tables throughout. The book's fonts are large and very legible, unlike that of some recent similar noteworthy publications in the field.

Although this is not an all-encompassing book, it is still an excellent resource for anyone entering or thinking about entering the field, or even as a reference for those who have been in the field for a while. It provides an excellent background to the broad range of tasks, innovations and challenges of the clinical engineering profession. As someone who is preparing for the CCE exam, I am finding this book to be one of the best resources I have on hand to help me get ready for the exam.

At a retail price of \$134.95 the book is expensive, especially for students or for those just entering the field. I would prefer if the management topics and the technology topics were contained in separate books, and if the reference guide was left as a separate



pocket guide as conceived in the original edition. Despite these minor gripes, given its representative sampling of the body of knowledge of clinical engineering, its approachability and its usefulness, I find that the book is well worth the price. Overall, I highly recommended this book.

Ismael Cordero

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Note: The opinions stated in this review are those of the author and do not necessarily represent the opinions of the ACCE. The ACCE News welcomes book reviews and other Clinical Engineering related submissions. Please send them to Ted Cohen ([theodore.cohen@ucdmc.ucdavis.edu](mailto:theodore.cohen@ucdmc.ucdavis.edu)) or to Ismael Cordero .

[ismael.cordero@orbis.org](mailto:ismael.cordero@orbis.org)

# ACCE Healthcare Technology Foundation's First Annual ExCEL Award Given to Easty

The logo for the ExCEL award, featuring the word "EXCEL" in white, bold, uppercase letters on a blue rectangular background.

After five years in the making, the first annual Excellence in Clinical Engineering Leadership (ExCEL) Award has been given to Dr. Anthony C. Easty of the University Health Network, Toronto, Canada. The announcement made by Dr. Yadin David at the annual ACCE reception during the AAMI meeting at San Jose, CA., awarded Dr. Easty as the recipient for his demonstration of clinical engineering leadership skills that transformed itself multiple times over the past three decades in response to his organization needs and for continuously influencing and mentoring professionals around him to effectively address challenges of technology management.

The goal of the Excellence in Clinical Engineering Leadership Award is to recognize and promote excellence at the institutional leadership level in the field of clinical engineering. The Healthcare Technology Foundation, with generous support of donors, is administering this recognition program and building an information database that will be used for modeling leadership attributes. The program offers clinical engineering and other professionals opportunity to apply and to nominate leaders for this recognition. Information about the program can be found at the AHTF website at [http://www.acce-htf.org/leadership\\_award.asp](http://www.acce-htf.org/leadership_award.asp).

Complete applications are reviewed by a panel of experts that currently include: William A. Hyman - Biomedical Engineering, Texas A&M University, College Station, TX. ; James O. Wear - Scientific Instruments, North Little Rock, AR; Matthew Baretich - Baretich Engineering, Inc., Fort Collins, CO; Wayne Morse - Morse Medical, Linc Facility Services Company, Seattle, WA; and Yadin David - Biomedical Engineering Consultants, LLC., Houston, Texas.

The Award ceremony will take

place early in September in Toronto in the presence of Dr. Easty institution's leadership. The Award includes a plaque, a monetary prize of \$1,000 to be used towards promotion of training and education on leadership excellence and an invitation to join the judging panel for next year. Next application deadline is December 31, 2008 and can be completed on-line at [http://www.accefoundation.org/leadership\\_award.asp](http://www.accefoundation.org/leadership_award.asp).

The objective of the ExCEL Award Program is to promote excellence in clinical engineering leadership practiced in the healthcare delivery system. This objective is accomplished various factors including: Identifying clinical engineering professionals that demonstrate leadership excellence, recognizing these professionals through ExCEL awards, and disseminating lessons learned from and knowledge gained about their attributes.

The focus of the ExCEL Clinical Engineering Leadership Award is on the achievements of individual professionals at their institution/corporate activities level especially as it goes beyond that of routine operations of a quality Clinical Engineering program. The ExCEL Award targets institutional rather than national or international professional activities, although external leadership activities often accompany institutional one. The ExCEL Award also seeks individuals whose leadership is *functional* rather than merely being reflected by their position on the organization chart. Important factor included in this category is impact on public benefits.

Therefore, *the management of an efficient and effective CE program that fulfills the basic requirements of CE is assumed to be a prerequisite to the leadership qualities that the ExCEL Award seeks to recognize.*

On an annual basis, AHTF solicits award applications from members of the Healthcare delivery system as well as

from clinical engineering professionals. Application form and filling guideline are available on-line at

[http://www.accefoundation.org/leadership\\_award.asp](http://www.accefoundation.org/leadership_award.asp).

Applications are screened for eligibility and compliance with the ExCEL Award program criteria. Applications meeting the requirements are submitted for review by a panel of experts who rank them using ExCEL excellence scoring criteria. Based on this panel ranking, top three candidates are selected for further review. The panel of experts visits with representatives of the selected candidates' organization and with the candidates. The panel of experts presents their recommended candidate to the Healthcare Technology Foundation Board for approval. One candidate may be selected each year to receive the ExCEL award. Lessons learned from and knowledge gained about the attributes that contribute to excellence in CE leadership are disseminated to the clinical engineering community and other professions such as healthcare administration and nursing. The achievements and benefits of excellence in clinical engineering leadership are publicized in engineering, clinical, administrative venues as well as to the public.

The Award ceremony is scheduled to take place in front of the leadership at the selected Award recipient institution.

For purposes of the ExCEL Award Program, "clinical engineering practice" is defined as the professional practice of engineering in the clinical environment and a "clinical engineering program" is defined as a hospital function that includes clinical engineering practice and associated activities for management of healthcare technology.

Clinical engineering leaders may apply to the ExCEL Award Program if they are hospital-based; are members in

*(Continued on page 6)*

# Foundation: Congratulations to Tony Easty

EXCEL

(Continued from page 5)

good standing of the American College of Clinical Engineering (ACCE with responsibility for healthcare technology life cycle management such as selection, inspection, maintenance, and repair of medical devices; limit engineering titles to personnel holding recognized engineering credentials; are actively involved in medical technology planning activities; are actively involved in patient safety and risk management activities, and agree to promote this program through oral presentations, publications or networking.

Applications to the ExCEL Award Program include, employment and employer information, verification of eligibility; support letters from their organization's executives including administration, support services, and clinical, documentation of excellence in one or more priority areas (see below); and a commitment to the objectives of the ExCEL Award Program.

The ExCEL Award Program will periodically select priority areas in which to encourage leadership, innovation and excellence. Clinical engineering professionals applying to the ExCEL Award Program must demonstrate excellence in one or more of the priority areas. Current priority areas are patient safety and risk mitigation; performance improvement and its monitoring; information technology integration; collaboration with clinicians; staff development, and community service.

Awards under the ExCEL Award Program consist of the following: a plaque suitable for permanent display in public areas of the hospital; a monetary prize to be used in furtherance of the hospital's clinical engineering activities; and publication of the event in clinical, administrative, and public forums.

Lessons learned and knowledge gained are disseminated by publication

in the clinical engineering literature; presentation in clinical engineering and information technology educational forums; publication on electronic boards, posting on publicly access portals, and cross-disciplinary publication in clinical, nursing and administrative venues.

The ACCE Healthcare Technology Foundation (AHTF) approves the guidelines under which the ExCEL Award Program operates, including high standards with regard to ethical behavior and conflicts of interest. AHTF also appoints personnel to administer the program under these guidelines. Personnel and the panel of experts will be selected from the

AHTF Board of Directors and committees; technical, clinical, and administrative personnel with established leadership, relevant interest and expertise; and recommendations from major donors and supporters.

The ExCEL Award program needs ongoing financial support from organizations that share its objectives and values. Financial contribution are tax deductible and may be made through the ACCE Healthcare Technology Foundation (<http://www.acce-htf.org>).

William Hyman

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## Meet New Co-Editor, Ismael Cordero

ACCE News now has a new Co-Editor. Ismael Cordero will be filling this volunteer position and will be assisting Ted Cohen by writing and editing articles, writing headlines, picture captions etc.

Ismael is a Clinical Engineer and holds the position of Senior Technical Advisor for Healthcare Technology at ORBIS International in New York City. He has worked with ORBIS since 1994 and prior to that, in several hospitals in Philadelphia. He received his BS in biomedical engineering technology from Temple University in 1989.



Ismael Cordero, new ACCE News co-editor

One of ORBIS's flagship programs is an aircraft converted into a fully functional eye hospital, which travels the globe teaching eye-care professionals how to combat blindness in their countries. Ismael has traveled to more than 40 countries in Asia, Africa, Eastern Europe, South America, and the Caribbean.

Ismael has helped organize many international training workshops and activities for clinical engineers and biomedical equipment technicians. These include collaborations with ACCE, PAHO and WHO.

Ismael's current plans with ORBIS include expanding its pool of clinical engineering volunteer faculty and consultants to cover a broader range of specialties. Additionally, ORBIS will be focusing on designing capacity building programs for clinical engineering professionals in several countries in Africa.

Ismael is a recipient of ACCE's 2008 Professional Achievement in Management Award/Managerial Excellence Award.

If you would like to contact Ismael, e-mail him at [Ismael.Cordero@orbis.org](mailto:Ismael.Cordero@orbis.org).

# ACCE International Activities from Canada to Africa

## Health Technology Assessment

Health technology assessment (HTA) plays an essential role in modern health care by supporting evidence-based decision making in health care policy and practice. The organization **Health Technology Assessment International** <http://www.htai.org/> is the only international professional society focusing specifically on HTA in academic institutions, health care facilities, industry, business, the voluntary sector, or government.

The 2008 annual meeting of HTAi was held in Montreal July 6-9. ACCE members *Andrei Issakov* and *Tom Judd* organized a session including ACCE panelists *Mario Castañeda*, *Adriana Velasquez*, and *Antonio Hernandez* titled; "Enabling Implementation of HTA recommendations: funding, planning, acquiring, implementing and sustaining technology in developing countries." Other speakers in this session included David Banta, France, Peter Heimann, South Africa and Sivalal Sadasivan, Malaysia. The opening speech was made by Dr. Yves Bolduc, Québec Health and Social Services Minister. The US speaker in the plenary session was Dr. Steven Pearson, from Massachusetts General Hospital/Harvard Medical School.

## ACCE International Workshops

ACCE faculty serve the World Health Organization and the Pan American Health Organization by providing education for healthcare technology management workshops. The schedule over 2008 includes: Caribbean - October, Brazil - November, and Argentina - December. Tentative plans are being made for 2009 in El Salvador, Nicaragua, Vietnam, India and Laos. Frank Painter is the coordinator of this program [frpainter@earthlink.net](mailto:frpainter@earthlink.net).

InfraTech Listserv

Infratech is a listserv established to provide a centralized international discussion mechanism on healthcare technology management. ACCE has a contract with WHO to manage the listserv. Bill Gentles from Toronto, Canada is the listserv administrator [gentles@BTMTC.COM](mailto:gentles@BTMTC.COM).

In the past, InfraTech has been relatively quiet until mid-May when Saide Jorge Calil from Sao Paulo, Brazil posed the question, "what is the source of the quote - "Up to 50% of equipment is not in use (in developing countries), either because of a lack of maintenance or spare parts, because it is too sophisticated, or simply because the health personnel do not know how to use it". Since that time, over 100 posts from all over the world responded to address this topic and others such as regulations, sharing of resources, surgical instrument specifications, levels of equipment, and avocation of technical staff in decision making processes. It

has become a tremendous source of information and interaction.

To subscribe to the list, send the following message in the body of an email:

*subscribe infratech "Joe Smith"* (Substitute your own name for "Joe Smith"). Send the message to: [LISTSERV@LISTSERV.PAHO.ORG](mailto:LISTSERV@LISTSERV.PAHO.ORG)

## CE Trains African Technicians

In July ACCE member Robyn Frick embarked on a week-long trip to Dar es Salaam, Tanzania and then immediately following on another week-long trip to Enugu, Nigeria to participate as a volunteer faculty for medical training programs organized by ORBIS International. In Tanzania, Robyn trained a group of biomedical equipment technicians at the Muhimbili National Hospital. In Nigeria he trained technicians at the University of Nigeria Teaching Hospital, Enugu. Robyn's teaching in both countries

*(Continued on page 8)*



Robyn Frick, center, teaches anesthesia machine testing to biomedical equipment technicians at the Muhimbili National Hospital in Dar es Salaam, Tanzania.

# Penalty Box: Should CE Report to Finance?

Where are we going and what are we going to do when we get there? This is a question that you have been asked many times over the years, especially if you have children or grandchildren. Those two questions are generally followed by how much longer will it take, which is followed by the first two questions. Unfortunately our profession seems to be stuck on the questions and not seeking the answers, in some people's opinions. Others may be thinking that the answers are in IT, Risk Management, Facilities, or some other place.

In many organizations the CE department is part of the facilities department. Sometimes it works but many times the CE problems are further down the action list than a light bulb replacement.

So, if the CE department cannot be a "stand alone" department with its own operating and capital budget,

where should it be? My proposal is that CE is a natural fit with the finance department, for many reasons.

Reason 1: The finance department understands return on investment, costs of operation, including service costs, and knows where the reimbursements are highest. The CE department has the service cost, operating expenses and life expectancy on devices and between the two departments a sound capital budget can be generated.

Reason 2: The finance department understands that if a device or service is "down" it is not generating revenue; the CE department understands that if a device or service is "down" patient care is impacted.

Reason 3: The finance department knows which clinical departments are slow in billing, are behind in reporting and need assistance, not necessarily more people, but often new or up-

graded technology. The CE department keeps up with technology and can bring the science to the problem in a cost effective manner.

Reason 4: The finance department knows that for the hospital to survive it must perform within budget, keep up with technology and not waste resources, like fancy lobbies and board rooms. The CE department historically has conserved resources.

Please let me know your thoughts on the direction of the profession.

Here in the Northeast we are planning a three day symposium and in putting the program together we are finding that many of the "major" companies are not willing to put on service seminars. The smaller companies still seem to think that the CE is the way into hospitals so please support the small guys assuming that their devices and services are at least equal to the big guys. Maybe the "bigs" need a kick in the \*\*\* on their service charges. Why is it necessary for them to charge \$2,500.00 just to show up and then add a gas surcharge? Just my thoughts.

Have a great summer!

*Dave Harrington*

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## International: Tanzania

*(Continued from page 7)*

focused on theory of operation, safety checks, and basic troubleshooting of anesthesia machines. At the end of both programs, the participants were provided with donations of essential equipment and tools needed for testing and repairing anesthesia machines.

### Helping Tanzania Develop their First BMET Program

ACCE members James Wear and Ismael Cordero traveled to Tanzania in mid July to assist the Dar es Salaam Institute of Technology (DIT) establish the first three-year diploma program in the country for biomedical equipment technicians (BMETs). The DIT is the leading provider of higher technical education in Tanzania and is develop-

ing this new program in response to an urging from the Ministry of Health and Social Welfare to address the serious shortage of properly trained BMETs. During their visit Wear and Cordero provided groundwork guidance on curriculum, course design and internships.

Anyone with a background in biomedical equipment technology education who is interested in volunteering as a consultant (paid or unpaid) for this multi-year project with the DIT should contact Ismael Cordero.

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# Perspectives from ECRI Institute: Clinical Engineers and the Challenges of OR Integration

There is a growing trend in hospital surgery departments to integrate their operating rooms. An OR is considered to be integrated if users can control the routing of audio/video (AV) signals from a central location within and outside the room and control certain equipment within the room. An integrated operating room is often considered an essential, or at least very beneficial, component of OR design. However ECRI Institute has found that there are some common misunderstandings about the technology that can significantly impact the effectiveness of its implementation. ECRI Institute recently completed a series of three articles in its *Health Devices* publication to help hospitals better understand this technology and to help them determine whether this technology is good fit for their institutions. We also hosted a Webinar on this topic on May 28, 2008 that provided some perspectives from hospitals that have implemented this technology.

Integrated ORs give nurses and physicians centralized control of AV signal routing and, in some cases, control of nonclinical and clinical devices. A typical system includes a routing device with inputs and outputs into which cables for the various sources and destinations are plugged. The routing of signals among these sources and destinations is then controlled with a touchscreen user interface. On the surface this can appear to be fairly straightforward but the complexity of multiple signal standards, the multiple stakeholders required to get this right (e.g., clinical engineering, OR Managers, and information technology), and cost can make this a major and difficult undertaking.

Clinical Engineers should play an

integral role in the planning, implementation, and ongoing support for the integrated operating room technology. If your hospital is considering implementing this technology or if it has already been through the process, make sure that you or one of your clinical engineering colleagues gets involved. You can support its efforts in by helping in many ways, including establishing product specifications to meet your institution's unique needs, dealing with the many questions that will come up when interpreting manufacturers' claims about their products and how they integrate with other products, planning for wiring layouts during installation, and troubleshooting during installation and once a system is up and running. The ECRI Institute OR integration article series is a resource that can help clinical engineers be better prepared to do these kinds of things.

The ECRI Institute OR integration articles describe the different types of configurations for an integrated OR including in room AV integration, extended AV integration (i.e., routing of AV signals outside of the operating room), and equipment control. They also describe some of the key benefits of implementing an integrated OR and point out benefits that many claim is offered by this technology but that it actually does not provide. We also discuss some of the challenges and difficult decisions hospitals will confront as they consider this technology. The second article in our series provides a detailed primer on medical video. That article is followed with a guide on what specific equipment is needed to achieve the various integration configurations mentioned above. For example, we point out that for effective integration, an operating room should be equipped with at least



Jim Keller is ECRI's Vice President for Health Technology Evaluation and Safety and a past Member at Large for ACCE's Board.

an equipment boom, a surgical light hub, a user interface at the circulating nurse's station within each operating room, and flat panel displays. The third article in our series provides advice on how to match the variety of video formats available with the best video display options.

The articles were published in the September 2007, January 2008, and March 2008 issues of *Health Devices*. They can be viewed on the member Web pages for ECRI Institute's Health Devices, Health Devices Gold, and SELECTPlus programs at [www.ecri.org](http://www.ecri.org). Feel free to contact me at [jkeller@ecri.org](mailto:jkeller@ecri.org) if you have any questions about these articles or if you would like to learn how to view this information on our Web site.

Jim Keller

[jkeller@ecri.org](mailto:jkeller@ecri.org)

# CCE Course in San Jose CA a Resounding Success

The ACCE's Education Committee organized a "Clinical Engineering & CCE Review Course" in San Jose, CA on May 30, 2008. The course provided an overview of the new 2008 CCE examination topics and also an opportunity to review the main clinical engineering topics. It also covered the current issues in clinical engineering that most Clinical Engineers deal with on a regular basis.

For the first time the course included mock written and oral exams for Clinical Engineers who plan to take the CCE Examination offered by the Healthcare Technology Certification Commission (HTCC) which will be held on **Saturday, November 1, 2008**. The deadline for applications is **August 16, 2008** for applicants testing within the United States and **July 19, 2008** for applicants testing outside the United States. For details visit the CE Certification website at

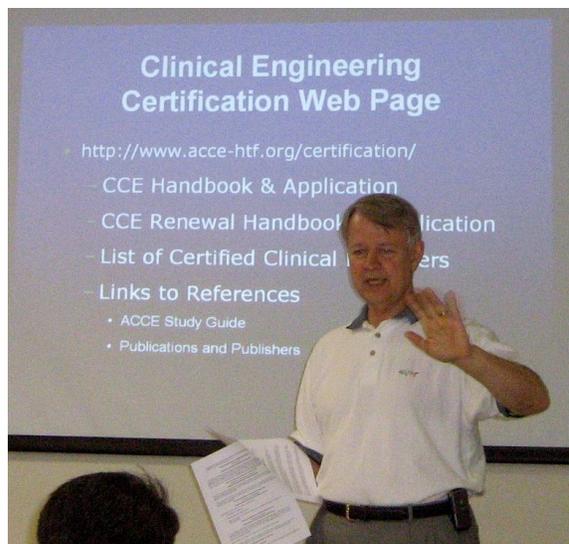
<http://www.accefoundation.org/certification.asp>

Eleven Clinical Engineers attended the course, which included 3 clinical engineers from Canada, Saudi Arabia

and U.A.E.

The faculty for the course were: Arif Subhan, MS, CCE, Masterplan (Course Director); Ted Cohen, MS, CCE, University of California Davis Health System; Robyn Frick, CCE, Eastern Maine Medical Center; Frank R. Painter, MS, CCE, University of Connecticut; and James Welch, BSEE, CCE, Masimo.

The participants rated the "faculty's presentation skills" at 4.8 (96%) out of a possible 5.0. Some of the comments about the course were "very comprehensive", "covers all aspects of the body of knowledge", "good faculty", "lots of practical experience and knowledge", "good balance", "certification process was well described", "broad range of material covered", "well structured". Most of the participants suggested that they could benefit from having the course for two



Frank Painter provides CCE Prep students with the certification process introduction

days.

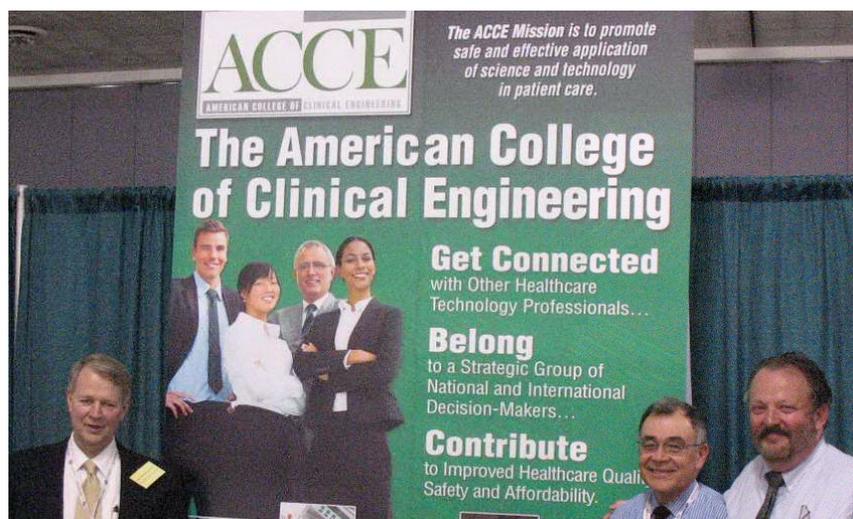
Future Clinical Engineering & CCE Review Courses are planned:

- October 9-10, 2008 - Sturbridge, MA. See [www.nesce.org](http://www.nesce.org) for more details.
- June 4-5, 2009 - Baltimore, MD.

Arif Subhan

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## Another Successful AAMI Conference for ACCE



(L to R) Frank Painter, Mario Casteneda ACCE VP, and Steve Grimes, Past President unveil the new ACCE banner at the AAMI conference in San Jose California

Recent advances in human factors techniques was the topic for the ACCE Symposium at AAMI in San Jose CA on May 31. Ed Israelski, Human Factors Program Manager at Abbott Corporation opened the symposium with his experience using human factors to design medical systems and how his expertise informs new standards for the industry. Other speakers included: Frank Painter of Technology Management Solutions, Mark Bruley from ECRI Institute, Izabella Gieras and Brian Vargo, of Beaumont Technology Services, and Yadin David from Biomedical Engineering Consultants in Houston, Texas.

# New IT-Medical Technology Website Launched

A new website has been created for medical and information technology professionals to access timely educational resources and information about IT-related issues affecting the healthcare field.

The website was developed by a coalition of three national associations—the Advancement of Medical Instrumentation (AAMI), the American College of Clinical Engineering (ACCE), and the Healthcare Information and Management Systems Society (HIMSS)—which recently formed the CE-IT Community.

See <http://www.ceitcollaboration.org> for a description of the new CE-IT Community; includes a copy of the group's charter; as well as news coverage about the collaboration, background information about the three sponsoring organizations, and details about how individuals can become involved.

Over time, the website will also include detailed information about specific projects undertaken by the CE-IT Community, including guidance documents and publica-

tions, information about educational events, and the sharing of best practices.

"This website will serve as a clearinghouse of information and resources to address the evolving IT needs and issues facing the healthcare field," says Steve Campbell, AAMI's Vice President of Communications. "As more projects get off the ground and are completed, the site will be particularly valuable."

Earlier this year, leaders of AAMI, ACCE, and HIMSS formed the CE-IT Community, thus pooling their expertise and knowledge and avoiding the duplication of efforts under way. The alliance is intended to help improve patient care and safety and to boost the quality and cost-effectiveness of customer service. The groups also seek to do the following: Foster further development of a united voice for IT and clinical engineering concerns, and provide a forum for its expression; Provide a mechanism for developing resources, guidelines, and best practices for the CE-IT community, and provide education, research, certification, public policy, terminology, mentoring, advocacy, networking, and career services; explore appropriate collaboration of clinical engineering/IT functions; and develop a

framework for representing the interests of clinical engineering and IT departments to the broader healthcare community.

Recently, more than 450 members of the three organizations took part in an online survey to help identify specific projects that the CE-IT Community should undertake. In the next several weeks, the CE-IT Steering Committee will review the survey results to determine the next steps forward.

The CE-IT Steering Committee includes two representatives from each of the three organizations—Bob Stiefel and Ray Laxton representing AAMI; Ray Zambuto and Steve Grimes representing ACCE; and Leanne Cordisco and Izabella Gieras representing HIMSS.

For more information about this effort, visit [www.ceitcollaboration.org](http://www.ceitcollaboration.org) or contact Ray Zambuto at [RZambuto@ACCENET.ORG](mailto:RZambuto@ACCENET.ORG).

Related links: AAMI: [www.aami.org](http://www.aami.org)  
HIMSS: [www.himss.org](http://www.himss.org)  
ACCE: [www.accenet.org](http://www.accenet.org)

*Stephen L. Grimes, Past President*

[SLGrimes@ACCENet.org](mailto:SLGrimes@ACCENet.org)

## Advance Your Career

### From the Comfort of Your Office

ACCE teleconference series starts from July 17, 2008



Since 1995, ACCE has been offering audio teleconferences on current and emerging topics in clinical engineering. This year's topics include 2009 Joint Commission medical equipment standards, revisions to NFPA 99, applying Reliability Centered Maintenance (RCM) techniques to equipment maintenance, certification in clinical engineering (CCE), radiation and MRI safety, fundamentals of RF/Wireless, CE/IT Collaboration—a case study in medical device interface, and much more!

A group of leading clinical engineers will speak at the next ACCE teleconference series.

The teleconference series, which consists of 10 sessions, will be held on the third Thursday of each month at noon Eastern Standard Time. Each session will last one hour, and will include a 45 to 50 minute presentation followed by 10 to 15 minutes of Q & A.

Please visit the ACCE website at [www.accenet.org](http://www.accenet.org) for more details and registration information. Inquiries about the series should be directed to [secretariat@accenet.org](mailto:secretariat@accenet.org).

Each registrant receives a CEU certificate from the University of Arkansas for Medical Sciences for each session they participate in.

## CCE Review Course on CDs

Purchase the CCE Review Course on CDs. This review was taped live at a five-session, 8-hour CCE Review Course, presented by a faculty of clinical engineers who have broad experience working in hospitals, independent service organizations, consulting, government, and industry. Topics of the CCE examination are reviewed by a subject specialist and the 8 hour audio course includes Q&A from the audience, Power Point Presentations, reference list, and sample questions. Topics covered in the course are: Introduction to the CCE Exam, CE Program Management, Financial & Service Contract Management, Technical Supervision, CMMS, Technology Assessment, Product/Vendor Selection, Capital Planning, Clinical Trials Management, Building Plan Review, Building Design and Human Factors, Regulatory/QA Issues, Risk Management/Safety, Education, Product Development, Repair/Systems Thinking and other miscellaneous Clinical Engineering topics. The Audio Course is available for \$300 (ACCE members) and \$345\* (nonmembers). For more information or to purchase

### The ACCE Board and Committee Chairs

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## ACCE Clinical Engineering Certification Study Guide

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

Alan Levenson, ACCE Secretariat  
 5200 Butler Pike  
 Plymouth Meeting, PA 19462

Or e-mail [Secretariat@ACCENet.org](mailto:Secretariat@ACCENet.org) and include credit card information (name on card, type of card, card number, and expiration date). Applications are now being accepted for the **November 2008** exam. Applications and the applicant handbook can be found at [www.ACCEnet.org/certification](http://www.ACCEnet.org/certification).

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

## Calendar of Events

October 8-10, 2008 New England Society of Clinical Engineering Sturbridge, MA.	June 4-5, 2009 CCE Prep Review Course Baltimore, MD.
October 9-10, 2008 CCE Prep Review Course Sturbridge, MA.	
April 4-9 HIMSS '09 Chicago, IL	
June 6-8, 2009 AAMI Conference Baltimore, MD.	

# ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

**Newsletter of the  
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