



ACCE News

Newsletter of the American College of Clinical Engineering

September — October 2017

Volume 27 Issue 5

II CEHTMC photos from Sao Paulo

Pages 6, 12, 13

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President's Message



I am greatly honored and humbled to write my first message to the American College of Clinical Engineering members. Many thanks to all the members who entrusted me and the new Board with this great honor. I would like to recognize the ACCE members who are promoting clinical engineering by volunteering their time and efforts to support the Board, its committees and various other activities.

I feel that I have grown up with ACCE. It was 1991 when I had the privilege of being the student of David Bell and Philip Katz (founding members of ACCE) who introduced me to ACCE and the profession of Clinical Engineering in their graduate Clinical Engineering Management course at Drexel University. Personally, and professionally, I have immensely benefitted from my ACCE membership, participating in the different ACCE committees, Educational Programs and the ACCE Board. Over the years, many ACCE members have mentored and inspired me to be a better Clinical Engineer.

Nominations Committee

Congratulations and many thanks to the Nominations Committee led by our calm and capable Past President, Paul Sherman for picking an excellent slate of candidates for the ACCE Board in his role as Chair of the Nominations Committee. I would like to specially thank our confident and disciplined Immediate Past President Petr Kretsa for including me in all the leadership decisions and being my mentor during my time as President-Elect. We are looking forward to Petr's continued assistance and support to the new board as the Immediate Past President and his new role as Chair of the Nominations Committee.

Membership

In 1998, in his first message as President, one of the most prominent founders of ACCE and its 6th President the late Robert Morris wrote, "We need to expand the membership. No organization can survive without members. ACCE needs active members...who will provide the personal time, effort, and resources to move us forward."

What Robert Morris said almost two decades ago is true even today. The board is looking to expand ACCE's membership and is on the lookout for energetic and enthusiastic members who can support over two dozen different committees, work groups, liaisons and educational programs.

I had the opportunity of working at the ACCE booth during the AAMI conference in Austin where I met many ACCE members as well as potential ACCE members. We need to reach out to all potential members and encourage them to join ACCE. ACCE is a young, dynamic and a fast-growing organization. Our membership has increased 15-fold in the last 27 years. One of the goals of the new Board is to "Promote and Increase ACCE Membership" (See Table 1 for the goals of the 2017-2018 ACCE Board). Our new dynamic and hardworking Membership Committee Chair, James Caporali, with the support of the Board will work towards increasing and promoting ACCE membership.

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President continued

(Continued from page 1)

I am asking our strong base of 800 plus members to reach out to the clinical engineering community at large and persuade them to join ACCE which will give them access to a network of clinical engineering experts and gain the benefits of ACCE membership (<http://accenet.org/Membership/Pages/Benefits.aspx>). I would like to encourage our current members who are at “candidate” or “associate” member status to see if they are eligible to apply to upgrade their membership to “individual” status. They can review the membership categories and requirements page at <http://accenet.org/Membership/Pages/Categories.aspx>. I am requesting those members who have not renewed their membership to please do so soon. Questions about member renewal can be directed to our knowledgeable and energetic Suly Chi (Secretariat). The ACCE membership renewal link is <http://accenet.org/Members/Pages/MemberRenewals.aspx>. My thanks and appreciations to the ACCE Institutional and Corporate Members who for many years have collaborated with ACCE in promoting the clinical engineering profession.

Certification

One of our goals is to promote Clinical Engineering Certification (CCE) among the clinical engineers. The mission of ACCE is “to establish a standard of competence and to promote excellence in clinical engineering practice.” ACCE supports the Clinical Engineering Certification program that is administrated by the Healthcare Technology Certification Commission (HTCC) and the United States and Canadian Board of Examiners for Certification in Clinical Engineering. There is no doubt that obtaining certification is the hallmark of distinction for a Clinical Engineering professional.

Suly Chi assists in developing excellent certification resources to help aspiring CCEs. She organizes and raises funds for the CCE review webinars and the CCE review courses. The certification resources including the certification guide book are available through ACCE (see <http://accenet.org/Mall/Pages/EducationalOfferings.aspx>).

I would like to congratulate the 20 Clinical Engineers who passed the CCE examinations this year. Special thanks to Pippa White, Chair HTCC for managing the certification program so well. Those who have obtained CCE should encourage other clinical engineers to obtain CCE. I was encouraged to pursue certification by a founding ACCE member and “certification guru” indeed no other than Frank Painter who also served as the 5th ACCE President. The certification encouraged me to formally join ACCE and participate in ACCE committees. Certification information is available at <http://accenet.org/CECertification/Pages/Default.aspx>

The Education Committee led by Co-Chairs Rodney Nolen and Austin Hampton is working on developing and enhancing other educational opportunities for Clinical Engineers. I would like to recognize the outgoing Co-Chair Jennifer DeFrancesco for her outstanding work in spearheading the Education Committee activities. They will also be working to develop closer ties with academic educational programs. Additionally, we plan to restart a CE-IT session at the HIMSS conference.

The mission of ACCE is “to define the body of knowledge on which the profession is based.” The Body of Knowledge (BOK) Committee undertakes this important mission. The BOK Committee is now led by meticulous and hardworking Katherine Navarro. Her committee will be conducting the next BOK survey and assist with certification preparation activities and resources. This BOK survey serves as the basis of the CCE exam.

Strategic Planning

Our hardworking Secretary Elena Simoncini manages and organizes our Board meetings efficiently. She led the discussion in strategic planning at the last face to face board meeting in Austin, TX. She will assist the Board in developing a strategic plan for ACCE.

International Outreach

Our dedicated and passionate International Committee Chair Antonio Hernandez has served our international members splendidly for a long time. Our international membership consists of

15% of our membership representing 42 countries. One of our goals is to increase international outreach and develop programs for our international members.

I had the opportunity to visit London, England recently on a personal trip. David Cook, Head of Clinical Engineering, University College Hospital, London was my gracious and resourceful host during my day long visit there. It was great to see a different perspective “across the pond” but I was pleasantly surprised that the clinical engineering challenges were the same. David and I identified several opportunities of cooperation and sharing best practices amongst ourselves.

CE-IT Committee

With the continuing importance of medical device integration and cybersecurity issues with networked medical devices, ACCE has recently formed a new CE-IT committee headed by no other than our energetic and knowledgeable Past President, Steve Grimes.

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ACCE News

ACCE News is the official newsletter of the American College of Clinical Engineering (ACCE).

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ACCE News is a benefit of ACCE membership; nonmembers may subscribe for \$75.

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President

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ACCE along with HIMSS and AAMI had a very successful joint CE-IT Strategic Planning meeting on August 23, 2017. This was a face to face meeting with the AAMI and HIMSS leadership. Petr Kresta represented ACCE at this meeting. Steve Grimes, Tom Judd and Elliot Sloane were present as subject matter experts and ACCE members.

Advocacy Committee

Our Advocacy Committee is chaired by the energetic and hardworking Clarice Holden. The committee recognizes Clinical Engineering professionals through Advocacy Awards in ten different categories for their outstanding achievements in Clinical Engineering and a student paper competition. Members are encouraged to nominate their colleagues for these awards. Details about the awards are available at <http://accenet.org/About/Pages/AdvocacyAwards.aspx>

CE-HOF Nominating Committee

ACCE established the Clinical Engineering Hall of Fame (CE-HOF) to recognize and honor the individuals who have made extraordinary contributions to the profession of clinical engineering. Since its establishment in 2014, five CE visionaries have been inducted into the Hall of Fame (<http://accenet.org/HallofFame/Pages/Default.aspx>). I had the great honor of being the mentee of one of the CE visionaries Malcolm Ridgway. I would like to thank the outstanding work done by the CE-HOF Committee led by meticulous Jennifer Ott who served as the first Chair and was also the 7th ACCE President. She is passing on the leadership of the committee to Ray Zambutto who was also our 9th President.

Secretariat

Many thanks to the reliable and hard-working Suly Chi for making the ACCE secretariat responsive to the needs of the ACCE members. She is truly an ACCE asset and helps all of us stay organized. She is doing an amazing job in promoting ACCE and the profession of Clinical Engineering.

ACCE Goals for 2017/2018	Responsibility
Promote and Increase ACCE membership Develop a review and approval process flow for membership applicants that don't utilize using email attachments. This will improve and speed up the process. Define a consensus guidance statement regarding internships and the experience requirements for membership. Define a consensus guidance statement regarding requirements for fulltime clinical engineering as it applies to membership requirements (not technical repair or hands on work).	Membership Committee
Promote Clinical Engineering Certification	Education Committee BOK Committee
Enhance Educational Opportunities for Clinical Engineers Develop closer ties with academic educational programs (Clinical Engineering and BMET Technology Associate Degree programs).	Education Committee
Move forward with Strategic Planning	Board
Closer relations with affiliated groups - e.g., AAMI, HIMSS, ASHE, ...	Board
Increase international outreach of ACCE	International Committee
Increase community outreach and promoting the profession	Board
Restart ACCE CE-IT Symposiums at HIMSS.	CE-IT Committee

Treasurer

We are indebted to our hard working Treasurer James Panella for managing the most important function of ACCE, its finances, very well and placing ACCE on a sound fiscal footing.

David Smith, Advertising Chair is doing a great job in reaching out to potential advertisers. Please connect him with any potential advertisers about job posting, products or services. See the advertiser's link <http://accenet.org/Mall/Pages/Advertisers.aspx>

ACCE News

Our ACCE News managing editor, and 14th President, Jim Keller, and co-editors, Ted Cohen and Jared Ruckman, are doing a great job in publishing the newsletter and communicating with our

members. I am encouraging all the members to contribute and share your thoughts in the newsletter.

I would like to end my message by quoting our eloquent Past President, Jennifer Jackson who in 2008 said, "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." I look forward to meeting and talking with all the members' in the future clinical engineering events and need your commitment and support in achieving the goals.

Arif Subhan
President, ACCE
president@accenet.org

AAMI Update: SLAs and Standards for HTM

AAMI Releases Service-Level Agreement Template

AAMI's Supportability Task Force has released a tool designed to help healthcare delivery organizations (HDOs) work more effectively with original equipment manufacturers (OEMs) when considering a medical device for purchase.

The *Service-Level Agreement Template* helps set mutual expectations for HDOs and OEMs—groups that don't always see eye-to-eye—to improve their working relationship.

Using the template, HDOs can create a custom contract to specify responsibilities for training, parts availability, service manual access, and more. The template is modular so HDOs can select what they need to craft a contract that is most relevant to them.

"The template is meant to be tailored to your specific needs—you can take the bits and pieces that are applicable to your HDO, department, or device," said Patrick Bernat, director of healthcare technology management at AAMI.

The free template is available at www.aami.org/SLAT.

New Resources Promote HTM to Students, C-Suite

AAMI has published two new brochures aimed at promoting the HTM field. The first focuses on encouraging students to pursue a career in HTM by showing how managing technology saves lives.

AAMI has heard loudly and clearly about the challenges the HTM community faces with respect to filling positions, bringing new blood into the field, and the closing of several HTM educational programs. As just one small step in addressing these issues, AAMI has developed a new brochure about pursuing a career in the HTM field," said AAMI's Patrick Bernat. "The brochure is ideal for anyone who wants to help raise awareness of the opportunities that can be found in an HTM career, including HTM professionals who volunteer at career fairs or other community events."

The second brochure aims to educate members of the C-suite about the benefits HTM departments can provide to their organizations. The brochure includes testimonials from C-suite executives, as well as concrete examples of ways HTM departments have helped control costs, improve patient care, and support other services critical to their organization's mission.

A PDF version of the career brochure can be downloaded from www.aami.org/HTM (located under the "Career" heading), while the C-suite brochure is available at www.aami.org/Csuite. Free printed copies of both brochures can be requested from <http://connect.aami.org/participate/volunteeropportunities>.

HTM Needs You to Set the Standards

Every year, a wide variety of professionals with an interest in healthcare technology devote themselves to developing and revising the standards that establish the basis for the safety and effectiveness of medical devices and equipment.

Standards such as ANSI/AAMI EQ56, *Recommended practice for a medical equipment management program*, and ANSI/AAMI EQ89, *Guidance for the use of medical equipment maintenance strategies and procedures*, create a foundation for efficient, effective, and timely maintenance of medical equipment and can be valuable tools for hospital-based healthcare technology management (HTM) professionals. By joining an AAMI committee or working group, you can take an active role in shaping medical device standards such as these—working side by side with industry colleagues and participating government agencies.

"I've learned and gained varied perspectives from very experienced, knowledgeable members of the HTM, manufacturing, and regulatory community. This broader exposure helped me learn the benefits of listening and developing truly consensus-based standards," said Stephen L. Grimes, managing partner and principal consultant at Strategic Healthcare Technology Associates, LLC in Swampscott, MA. Grimes is a member of the standards committee that developed EQ56 and EQ89.

There are several ways to get involved: proposing a new work item, joining a technical committee, submitting comments on public review drafts, or attending open meetings of AAMI committees and working groups. To learn more about the AAMI Standards Program or to apply to join a committee, visit www.aami.org/standards or email standards@aami.org.

AAMI staff

ACCE Member Dues

Please remember to renew your 2017 membership online, please [click here](#), or mail your renewal check to: ACCE, 5200 Butler Pike, Plymouth Meeting, PA 19462.

Journal of Clinical Engineering Call for Papers

The Journal of Clinical Engineering prints selections of the ACCE News in each issue and is interested in papers from you. If you have an urge to write and have activities or ideas to share, please consider JCE as one of your outlets. One type of article not seen recently is the Department Overview which presents how your department is structured and how it performs its functions. Shorter "Perspective" pieces are also welcome. You can discuss manuscript ideas with fellow ACCE member William Hyman, w-hyman@tamu.edu, who is one of the editors of JCE, or send them to Michael Leven-Epstein at: michael.levinepstein@gmail.com.

Perspectives from ECRI Institute: Clinical Engineering's Role in Disaster Preparedness

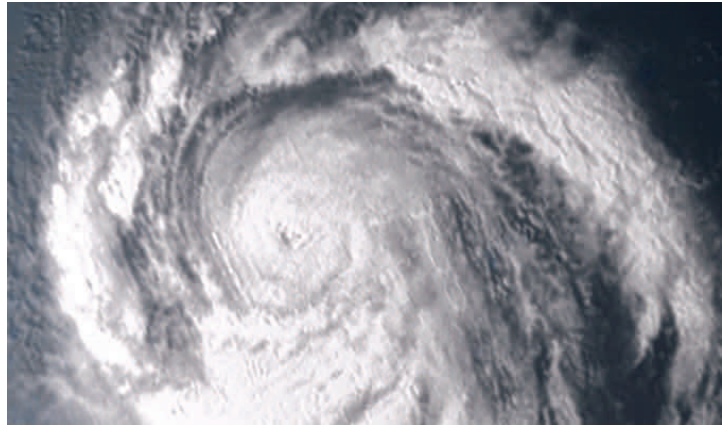
I am beginning preparations for an epic around-the-world trip for ECRI Institute. It will start off in mid-October with a trade mission to Ireland. The trade mission is being organized by the Office of International Business Development in Pennsylvania's Department of Community and Economic Development. The Office of International Business Development is helping to set up meetings with potential clients for me and two of my ECRI European Office colleagues in hospitals and other healthcare-related organizations in and around Dublin. After Dublin I will fly to Hong Kong; Taipei, Taiwan; Shanghai, China; Kuala Lumpur, Malaysia; and Bangkok, Thailand for a series of presentations and business development meetings. After Bangkok I'll head home via Hong Kong. It should be a great trip, but I'm starting to get a bit tired just thinking about it.

In Bangkok I will be presenting at the Thailand Hospital and Facility Management Conference. My presentation will cover the role that biomedical/clinical engineering should play in planning for mass casualty and other major emergencies like our country recently experienced in Texas and Florida. I will also be addressing technology-related considerations with major infectious disease outbreaks like from Ebola. I'll wrap up my presentation with commentary on biomedical/clinical engineering's responsibilities with serious multi-patient adverse events in which medical devices are implicated. One example that I plan to cover is widespread patient contamination from flexible endoscopes.

ECRI Institute has published many guidance articles over the years on technology-related emergency preparedness. In response to the hurricanes in Texas and Florida we published a free [Resource Center](#) on Disaster Preparedness and Recovery with guidance for healthcare facilities affected by natural disasters. It includes a [downloadable PDF](#) of medical device service companies in affected areas and articles on

how hospitals planned for and have responded to the hurricanes. We've also directly supported hospitals with their emergency preparedness plans and efforts through our consulting services. We hosted a webinar on Medical Device and Personal Protective Equipment Preparedness and numerous risk prevention articles at the height of the Ebola crisis in 2014. The full recording of the webinar is available to members of ECRI's Health Devices and SELECTPlus programs at this [link](#). Endoscope contamination is well covered by ECRI. For example, the title of the number one hazard on ECRI's 2016 list of Top Ten Health Technology Hazards is "Inadequate Cleaning of Flexible Endoscopes before Disinfection Can Spread Deadly Pathogens". I just finished leading a four-week course at ECRI on medical device post-market surveillance for six staff from the Saudi Food and Drug Authority. Investigating endoscope-related infections was one of the many topics covered during the course. This and other parts of the course are based on ECRI's almost 50 years of experience with investigating serious medical device accidents.

I plan to draw on much of ECRI's published information and experience in preparing for my Bangkok presentation. However, I'm interested in learning about new emergency preparedness initiatives that ACCE members have been working on. I'd also be interested in hearing about lessons you may have learned from responding to and dealing



Graphic from ECRI's Resource Center on Disaster Preparedness and Recovery

with events like Hurricane Harvey in Texas and Hurricane Irma in Florida or the Ebola crisis in 2014. And, if you've been involved in helping your hospital address multi-patient adverse events like those caused endoscope infections (either in planning how to avoid them or in dealing with the aftermath of actual events) I like to hear about your experiences.

I'll be working on my Bangkok presentation over the next several weeks. Please get in touch with me if you have any interesting or insightful experiences that you would like to share. For example, I'd like to know if you helped decide whether or not to stockpile certain types of medical devices prior to a hurricane, if you developed special disinfection procedures for medical devices used to treat Ebola patients, or maybe if you were involved in decisions to upgrade reprocessing practices in response to potential or actual endoscope infections. Any perspectives you can provide would be greatly appreciated.

*Jim Keller, MS, FACCE
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ACCE Job Website Job Postings

For posting job opportunities, contact Dave Smith at advertising@accenet.org

International Report: 1st Latin American and Caribbean Symposium on Clinical Engineering and HTM

The first Latin American Caribbean Symposium on Clinical Engineering and HTM was held in Sao Paulo, Brazil on September 20, 2017. PAHO/WHO and ACCE promoted this one-day international event as a pre-congress activity of the II ICEHTMC 2017.



Venue for this meeting was the teaching and research complex of the Sirio-Libanes Hospital in Sao Paulo

After the welcoming by officials from the Brazilian Minister of Health, the Hospital Sirio-Libanes, PAHO-WHO, and IFMBE-CED, the program continued to the first of 6 moderated sessions.

Dr. Evelinda Trinidad from InCOR (one of the three largest cardiology centers in the world) moderated the first session. In this session Saide Calil and Tom Judd presented the state of the art on CE-HTM in Brazil and the world. It was very revealing to see the priorities of interest and practice for clinical engineers across the world. This was the first time for this group to see results from a recent IFMBE CED global Body of Knowledge (BoK) and Body of Practice (BoP) survey. In addition, there were interesting presentations and discussions about using HTM as a driver for innovation, policy development, and universal health coverage.

During the next five sessions, the country representatives shared presentations that included the status, challenges and goals of their respective CE-HTM programs or projects. Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Paraguay,

and Peru presented. Canada reported on innovations in Maternal Child Health and Colombia on the formation and use of regional communication nodes for rapid peer to peer communication. This innovative approach uses social media principles to connect clinical engineers in Colombia.

The day was closed with a round table discussion moderated by Murilo Conto, from PAHO-WHO. In this session, the audience was updated on the CE-HTM needs and priorities in the Americas and the world. The opportunity was opened

for all to contribute.

Further, the interaction among participants during and immediately after the symposium was a useful and welcomed activity. This person-to-person interaction leads to agreements for mutual cooperation and collaboration to enhancing CE and HTM in Latin American and the Caribbean.

Mario Castaneda
International Committee member

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Opening session of 1st Latin American & Caribbean Symposium on CE-HTM.



Latin American and Caribbean Countries Summit on CE-HTM. From Left to right: Andrea Garcia, Colombia; Freddy Matamoros, Ecuador; Renato Garcia, Brazil, Moderator; Rossana Rivas, Peru; Marcelo Lencina, Argentina; German Giles, Argentina.

Clinical Engineering Challenges in Colombia

This article describes my opinion regarding Clinical Engineering challenges in Colombia and the actions we have taken to reduce the gaps between our profession's current reality and our desire for the future. These challenges are fall into two main categories: Education and training and lack of regulation.

Education and Training

There are ten clinical engineering and related undergraduate programs in the country. Additionally, there are eight postgraduate programs. 2518 Biomedical engineers have graduated from these institutions and 348 have obtained a postgraduate degree. These professionals are primarily located in only a few of main cities, where the health care sector is more developed, causing an oversupply of professionals in the field.

Although there are only a few clinical engineering programs, we have not harmonized the Body of Practice (BoP) and Body of Knowledge (BoK) among them.

The government and universities have been generating employment opportunities for these professionals and have increased the number of research projects and funding for innovation in healthcare and IT and patentable technologies. These strategies have been promoting the entrepreneurship and the motivation of students of these programs. It is important to promote the sustained implementation of these strategies for the improvement and recognition of importance of clinical engineering to the healthcare sector development.

Regarding the BoP and BoK, there is still the need for harmonization based on international references and trends, in order to improve the clinical engineering education and training.

There are no institutions which are dedicated to investigating and publishing technical documents about clinical engineering. There are higher education institutions focused on undergraduate and graduate programs, but not enough continuing education programs which can lead professionals to update their knowledge, such as webinars, short-

term courses, and conferences with call for papers.

Colombia has the Colombian Biomedical Engineering Society (ABIOIN), but they do not have a branch specifically designed for clinical engineering matters. To advance Clinical Engineering, industry clinical engineers, universities and the government are joining forces to create the Colombian Clinical Engineering College. The main objective of the Colombian College is to get the clinical engineers of industry, academia and government together, to bring together mechanisms to share and spread knowledge, and to better understand other clinical engineering-related institutions such as AAMI and ECRI Institute.

Simultaneously, there is a strategy in place, to formalize a cooperation agreement with the American College of Clinical Engineering. This will let us, work together towards the improvement of Colombian clinical engineering education, adjusted to Colombia's context and necessities.

There are no mechanisms, tools, or institutions responsible for certification of technologists and engineers, and there is a lack of knowledge about international certification processes.

Universities used to be separated from industry. Nowadays, they both have identified the benefits of working together. These benefits are related to the production of new knowledge and the rise of their investigative capacities. Due to this, the main universities and the main healthcare supply institutions from Medellin have made strategic alliances to do applied research.

Universities from Medellin, have been promoting training strategies as interna-

tional events and webinars supported by ACCE to positively impact the educational needs of clinical engineers in Colombia.

Lack of regulation

There are basic regulations and standards for the licensing of beds and opening of healthcare services supply institutions.

However, there are no regulations or recommendations for medical equipment management.

Since 2013, the Ministry of Health, with hospital clinical engineers and reference clinics have been working together to generate standards of mandatory compliance, for biomedical technology maintenance, acquisition, metrology and renovation with the establishment of the National Biomedical Technology Management Board.

Furthermore, they have created a clinical engineering network with hospitals, clinics and universities of different regions of the entire country. This network has been established using regional nodes. The objective of the nodes is to share the drafts of regulations,, analyze them and provide feedback to the government about them.

As you can see, these are all important challenges to address in order to improve clinical engineering in Colombia. Strategies have now been put in place to strengthen our profession and its growth.

Paula Andrea Berrio, CCE

International Committee member

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Contributions to the ACCE Newsletter are always welcome.
For ACCE Newsletter Guidelines, please go to:
<http://accenet.org/publications/pages/newsletterinfo.aspx>

IFMBE Global CE Day is Coming Soon (10-21-2017)

On behalf of the International Federation of Medical and Biological Engineering (IFMBE) Clinical Engineering Division (CED), we have 3 messages today that will help you and all of us build on our successes to date.



Global Clinical Engineers (C.E.) Day

TOGETHER WE CAN MAKE IT BETTER

First some background: Health Technology (HT) is vital to global health care. Ten years after the World Health Organization's (WHO) HT Resolution ([WHA 60.29](#)) and only 2 years after the 1st ICEHTMC, we find the Clinical Engineering (CE) – Health Technology Management (HTM) profession on the rise in global influ-

ence and impact, helping to realize the promise of this declaration. IFMBE CED's extraordinary CE-HTM involvement in WHO's [3rd Global Forum on Medical Devices \(3GFMD\)](#) and the coming II ICEHTMC <http://www.icehtmc.com/> demonstrates this progress. ... Now the 3 messages ...

Global CE Day ambassadors by country

Country	Representative(s)
Albania	Ledina Picari
Argentina	German Giles & Marcelo Lencina
Australia	Adrian Richards
Bangladesh	Md Asrafuzzaman, Anwar Hossain
Bhutan	Tashi Penjore
Benin	Anna Worm & Maliki Seidou
Brazil	Lúcio Flávio de Magalhães Brito & Saide Calil
Canada	Tony Easty, Bill Gentles Shauna Mullally, Anthony Chan
Chile	Guillermo Avendano, Francisco Acevedo, & Christian Diaz
China	Zhou Dan & Zheng Kun
Colombia	Andrea Garcia, Paula Berrio, Beatriz Galeano, Martha Zequera
Costa Rica	Gabriella Murillo & Maria Paula Esquivel
Dominican Republic	Diogenes Hernandez
Ecuador	Freddy Matamoros
Ethiopia	Mulugeta Mideksa
Hong Kong	Stanley Siu Hiu-fai
Ghana	Nicholas Adjabu
Greece	Nicolas Pallikarakis
India	Jitendar Shrma & Mohammad Ameer
Italy	Paolo Lago, Stefano Bergamasco
Japan	Tadayuki Kawasaki, Keiko Fukata, Jun
Lebanon	Riad Farah
Malaysia	Azman Hamid
Mexico	Roberto Ayala & Elliot Vernet
Mozambique	Mario Forjaz Secca
Paraguay	Pedro Galván
Peru	Rossana Rivas & Luis Vilcahuamán
Poland	Ewa Zalewska
Rwanda	Costica Uwitonze
Taiwan	KP Lin
Tanzania	Damas Magesa
Turkey	Ugur Cunedioğlu
South Africa	Mladen Poluta & Baset Khalaf
UK	Dan Clark, Abdul Basit & Leandro Pechia
USA-ACCE	Petr Kresta, Ilir Kullolli & Arif Subhan

1. Global CE Day is coming! There is more information at the Global CE Day website - <http://global.icehtmc.com/> - as well as the plans below for 2017, country Ambassadors identified so far, and the scripting from Global CE Day in 2016.

2. In May 2016, we provided a Health Technologies Resource white paper to the WHO World Health Assembly (global Ministry of Health leaders), showing 150 CE Success Stories from 90 countries; see these at <http://cedglobal.org/?s=success+stories>.

Between the May 2017 3GFMD and the II ICEHTMC, we identified another 150 stories in 2017. Help us over the next year to increase our global recognition by sharing your success and failure stories; We are seeking 500 total by the end of 2018.

3. Along with our WHO CE leader-colleague Adriana Velazquez, we are helping to collect global data for your country; our current CED directory for this announcement has representatives from over 150 countries: We will compile and share this data with you. Data to be collected is based on:

1. Country major health issues
2. CE organizations (how many societies - numbers of registered members each, annual meetings; and also academic units for CE in the country) - *for several Latin American & Caribbean countries, these questions will be answered by presentations during the September 20-23 II ICEHTMC.*
3. Major CE issues that need to be addressed
4. Estimated number of country-wide CE-HTM practitioners

2017 Global CE Day Plans

The 2nd Global Clinical Engineering (CE) Day will be celebrated on Saturday, October 21, 2017, see the Global CE Day website <http://global.icehtmc.com/>.

On October 21, 2016, there were two on-site country programs (China and India) and nine one-hour virtual webinars (for Australia, Africa, Europe, and the Americas) resulting in 70,000 tweets and genuine worldwide CE excitement, encouragement, and recognition. This year, we expect to have 150,000 tweets, via **#GlobalCEDay**.

(Continued on page 9)

Global CE Day continued

(Continued from page 8)

This year's event, recognizing the important contributions of clinical engineers around the world, will be live for 24 hours.

CED Project Leaders
Global CE Day: Yadin David & Tom Judd
CE-IT: Elliot Sloane, Ricardo Silva, Steve Grimes
Certification: Jim Wear, Ewa Zalewska, Mario Mevedec
E-Course, Global Education: Mladen Poluta, Tobey Clark, Anna Worm, Shauna Mullally, Mario Secca
Body Knowledge/Body of Practice: Saide Calil, Frank Painter
Website, Social Media: Ernesto Iadanza, Mario Castañeda, Fred Hosea
Latin American & Caribbean Region: Antonio Hernandez, Mario Castañeda, Murilo Conto

Plan to submit your region update, video and stories. Upload details for our Global CE Day website will be provided soon. We will also provide a 'Chat Room' so you can share between each other.

Tell your colleagues, friends, policy makers and neighbors about this, and plan to join the celebration.

Please contact your CE-HTM country Ambassadors (see page 8). We will provide some central resources to help each country in planning your program/and or hosting your own virtual webinar. Here are three webinar hosting tools for live video streaming that we recommend:

YouTube live: Users just need a Gmail account to start broadcasting

Twitter: Live broadcasting is embedded in every Twitter account

Facebook live: Perhaps the most used for both live video and radio broadcasts.

See this link for last year's scripting (and YouTube postings) of the various meetings around the world to help plant ideas about what you may want to do this year. See <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWVpbnxhY2NIYWR2b2NhY3I8Z3g6NzVzM2ZhNzlyNWRkMDU3>

I will be in contact with your Ambassadors soon to discuss your country's possible program and or webinar. If you don't have an Ambassador, contact me to get started.

Tom Judd, IFMBE CED Secretary, <http://cedglobal.org/> and <http://www.icehtmc.com/judd.tom@gmail.com>

for **Dr. Yadin David**, Global CE Day leader, david@biomedeng.com

Global Clinical Engineering Impact: U of Vermont named WHO Collaborating Center for HTM

The Technical Services Partnership (TSP) at University of Vermont has a long history of global clinical engineering work. The shared service CE group serving Vermont, New Hampshire and New York has been in existence since 1973 when it was conceived and funded through a Kellogg Foundation grant.

TSP first began working internationally in 1992 by contributing as ACCE faculty to Advanced Clinical Engineering Workshops. TSP staff have participated in a total of seventeen workshops worldwide, primarily with ACCE International Committee chair, Antonio Hernandez when he was at the Pan American Health Organization (PAHO). Although offering clinical engineering internships since its inception for University of Vermont students, it first began implementing international student internships in 2005. Thirty-seven interns from Argentina, Colombia, Peru, China, India, and Spain have been trained by TSP's staff of Certified Clinical Engineers.

Through a grant from the Pan American Health Organization's foundation, bilingual BMET and HTM online courses have been developed which have been taken by over 1,000 students from 40 countries. Other contributions by TSP include volunteer mission work on the ground supporting clinical services and training staff in Guatemala, Rwanda, Peru, Colombia, Paraguay, and other low- and middle-income countries. TSP has also contributed to international meetings, conferences, joint publications, and training events on HTM.

In August, the Technical Services Partnership (TSP), an ACCE Institutional Member, was designated as a World Health Organization Collaborating Center for Healthcare Technology Management. TSP is the only Collaborating Center in the United States focusing on healthcare technology management. The project plan is to

develop and conduct virtual, online educational courses on healthcare technology, live workshops for clinical engineering and technical training, publications, consulting, and studies in the area of HTM. The TSP team will be coordinating work to strengthen evidence-based selection and rational use of health technologies with the PAHO, WHO regional office for the Americas, and its collaborating centers including Instituto de Engenharia Biomédica - Universidade Federal de Santa Catarina - IEB - UFSC (Brazil) and Centro Nacional de Excelencia Tecnológica en Salud, Ministry of Health - CENETEC (Mexico).

Tobey Clark will have a primary focus as a Director of the collaborating center with Michael Lane, Director - Instrumentation & Technical Services, also designated as a Director.

Tobey Clark
Tobey.Clark@its.uvm.edu

The View from the Penalty Box

Recently I was asked why I have named my bi-monthly rant “The view from the penalty box”. It goes back to my days as a hockey player. Back then, before helmets, facemasks and other assorted items, the penalty box had a wide open view of the ice, no glass or chain link walls and players from both teams sat in the box at the same time. This led to some extra “discussions” in the box but we did have an uninterrupted view of what was going on. I just wish that I could get some of the people who are making decisions on what and how we do things in clinical engineering into the penalty box for some discussions on our future direction as a profession.

One thing that happens with retirement is that you start to clean out your files and come up with some interesting items. One recent discovery was the 1972 publication of Questions and Answers about Medical Electronics. It was written by Edward Bukstein and published by Howard W. Sams. Most of you reading this have probably never heard of the Sam’s Sheets. These were sheets that people repairing electronic items used to figure out what was wrong with the specific device. Fada, Zenith, RCA or Westinghouse TV or radio, or an Allied audio amplifier, all had Sam’s Sheets. Some of you even may have “pinged” a vacuum tube and if it “bloomed”, changed color, it was an indication that that was the problem. Too bad that Sam’s could not publish information on medical devices. If they could have our cost of ownership would be lower than it is presently.

Coming forward some 50 plus years our devices are very reliable, in most cases. Most of our time is spent repairing certain devices many of which are 50/50. That is 50% design problems and 50% user problems. This ratio has changed, very little, in the years I have been in the business and most of the “senior members” of the profession agree, but there is a disturbing trend starting that needs to be addressed. CMS and TJC have put more emphasis on testing than teaching. In the vast majority of testing no problems are found but user problems are growing. I suggest that we do the following to get our points across. In our monthly re-

ports to the safety committee we do a simple listing of problems found, problems not found, and user problems. With the problems found we need to list the device and the problems with that device, both technical and user. A problem we have is that we do not share what good and bad is happening with devices and their application.

This time of year many of the local BioMed groups are holding their conferences and we need to both be present and participating in the programs. These are great places to look at other technology than what you have, start to get inputs for your next buying cycle and most of all talk with our colleagues who may have the technology you have, ask them about their problems with that technology and what they are doing to correct the problems that they are having. What also is amazing is the number of webinars, in many cases free, offered by publications,

societies and companies. These are generally one hour and you can watch and listen in the shop with the staff. Just remember to keep track of who attends for your department’s training records that you probably will have to show in the future to some group of seagulls that come into inspect your operation. Remember the definition of a Sea Gull, something that flies in and craps all over you and then flies off.

In closing remember the following: Technology is good, training of the users is very important, make sure that people in the hospital understand what you are doing and why, be sure to communicate, and lastly, don’t let the sea gulls get you..

Dave Harrington
dave@sbtttech.com

Education Committee

The education committee is working hard to organize and facilitate multiple things including the monthly webinars and the 2018 Clinical Engineering symposium at AAMI. With these efforts in mind we would like to solicit the following:

Call for Speakers

Do you have a topic or presentation that you’d like to share with the professional community? The education committee is looking to build an ongoing list of professionals that have a sincere interest in sharing their expertise and knowledge with

the Clinical Engineering field through ACCE’s many speaking opportunities.

If you would like to volunteer to speak or present please send an email to Educationchair@accenet.org with your name, organization, topic and synopsis.

Please stay alert for all of our InfoBlasts on upcoming events and webinars!

Rodney Nolen,
Education Committee Co-Chair
Educationchair@accenet.org

Upcoming Education Webinars

09 November 2017	Biomedical Engineering Assets on an IT network
14 December 2017	Planning for the Future: Importance of Equipment Lifecycle Analysis
11 January 2018	The Joint Commission 2018 Update
08 February 2018	Relying on Reliability Maintenance
08 March 2018	Service Contracts and Continuous OEM Training, How to Leverage Cost Effective Agreement
12 April 2018	C-Suite, IT and Biomed: The Three Pillars for a Successful Hospital
10 May 2018	Patient Safety and Managing Recalls
14 June 2018	Personnel Management

Healthcare Technology Foundation News

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



Disaster Preparedness

Are you prepared to survive, self-rescue and assist others, should a disaster, like the recent storms that hit Texas and Florida strike your locale.

In an emergency, be it a hurricane, tornado or some other sort of natural or manmade disaster, you need to plan to be self-sufficient for 72 hours. You need food, water, medicines, and shelter until help arrives. If you look at the Joplin tornado, and the recent Harvey and Irma Hurricanes, there was so much devastation that it was at least three days before help arrived. You must be as self-reliant as you can.

The first thing to keep in mind is the Wilderness Survival Rules of 3, which states that you can survive for:

3 Minutes without air (oxygen) or in icy water.

3 Hours without shelter in a harsh environment (unless in icy water)

3 Days without water (if sheltered from a harsh environment)

3 Weeks without food (if you have water and shelter) (I suspect I could go a lot longer without food as I carry some extra around)

Wilderness Survival Rules of 3 - Air, Shelter, Water & Food

www.backcountrychronicles.com/wilderness-survival-rules-of-3/

If you understand the above basic rules, then you need to figure out how you are going to meet them and add in the specific requirements of your family. What medications, special foods, medical needs (oxygen, electricity) do you need and how will you provide them until help arrives. What will you do with your dogs and cats and any other animals? Now, I would not leave/evacuate/be rescued without my

dogs, and my “go bag” includes their meds, foods and important records. With my cat, though the thought of trying to get him into a carrier and putting him and the dogs in some sort of transport seems like a potential disaster of its own, you will need to construct a plan for them as well

I mentioned a go bag, which includes what you will need if you are told to evacuate. If you have early warning, then you can get out in advance. What do you need put in this bag? At its simplest, your meds, some food, insurance papers, ID's, money and whatever you must have for 72 hours. There are many versions of go bag descriptions online based on how bad you expect things to be. You need to plan for what you might face depending on where you live and what Mother Nature has sent your way in the past.

Keep in mind what you might need in case your home was completely wiped out.

<https://www.ready.gov/build-a-kit>

https://en.wikipedia.org/wiki/Bug-out_bag

<https://www.pinterest.com/explore/bug-out-bag>

Although I am hoping you never face one of these disasters and never need to worry about how you survive, you still need to have a plan. What would you do, what are your resources and are you ready. Once you have a plan, make sure all in your household know the plan. This plan should include what to do if there is a fire in your house. (October is fire safety month and your local fire department has all sorts of information regarding home fire safety.)

<http://www.nfpa.org/public-education/by-topic/safety-in-the-home/escape-planning/basic-fire-escape-planning>

If you are prepared, keep your head, have a plan and follow it, your likelihood of surviving a disaster, both the initial event and the next 3 days improve as well as your ability to help others.

Be ready, be safe!

HTF Board Member Blog Posts

Bridget Moorman, HTF Board Member, has a few blog posts that may be of interest to ACCE members.

She has published two blog posts and a third is going up 9/18/2017. One is a usability study of a mobile fitness app, the next is an update to medical device integration ideas since she wrote a paper about it in 2008 and on 9/18/2017 will be a description of a medical device integration knowledge base she built. All are available, along with other blog posts she has written about regarding her work in Europe, sensor selection for a remote monitoring system to support chronic diseases and various standards implementation ideas for interoperability, at:

<http://medicalconnectivity.com/author/bmoorman/> as well as at her LinkedIn profile:

<https://www.linkedin.com/in/bridget-moorman-22077628/detail/recent-activity/posts/>

<http://medicalconnectivity.com/2017/08/21/usability-heuristic-test-of-mobile-fitness-application/>

HTF Alarms Group

The HTF Alarms group is finalizing a survey on home health and alarms. The goal is to gather information for future

(Continued on page 12)

Advocacy Committee Update

Please join ACCE in congratulating the 2017 Antonio Hernandez International Clinical Engineering Award recipient, Dr. Kang-Ping Lin! This prestigious annual award goes to a well-deserving clinical engineer who has made extraordinary contributions to the advancement of CE in his/her own country. It was presented to Dr. Lin by ACCE representatives Mario Castaneda and Binseng Wang, in September at the awards ceremony during the II ICEHTMC in Sao Paulo, Brazil. Many thanks to Kang-Ping for his excellent dedication and remarkable contributions in advancing Clinical Engineering in Taiwan.

Several past Antonio Hernandez international Clinical Engineering Awards recipients were also in attendance at the II ICEHTMC, continuing their contributions to the advancement of the field in their countries and internationally. (See other II ICEHTMC photos on page 11).

Do you know of someone who should be recognized for their excellence and achieve-

ment in clinical engineering? Consider nominating them for an [ACCE Advocacy award](#)! Call for Nominations for the 2018 award cycle will open in early November, so be thinking about the great engineers you work with and know. Award criteria and descriptions can be found online at accenet.org.

Clarice Holden
Advocacy Committee Chair
advocacychair@accenet.org

HTF continued

(Continued from page 11)

projects. The paper on the survey results has been accepted and we are awaiting specific publication information from the American Association of Critical-Care Nurses.

HTF Patient Education and Home Health

The Patient Education and Home Health group continues to review the results of the literature search on materials. Educational material development, content and method will be focus of this group. We are also looking at continued partnerships to move projects forward.

HTF Future Projects

Have a great idea to share? Please let us know if you have any suggestions on projects for HTF that will meet our mission:

Be sure to visit the HTF website, www.thehtf.org to see our programs and resources. While you are there, feel free to hit the **DONATE NOW** button. We will accept them anytime and they are always tax deductible!

Paul Coss, RN, President, HTF
president@thehtf.org
Jennifer C. Ott, MSBME, CCE, FACCE
Secretary, HTF
secretary@thehtf.org



From left: Renato Garcia, Adriana Velazquez, Saide Calil and KP Lin, past and current Antonio Hernandez International Award recipients.



From left to right: Mario Castaneda (representing ACCE President), KP Lin, 2017 Award recipient and Binseng Wang (representing ACCE International Committee Chair).

II ICEHTMC and Global CE Summit



Adriana Velazquez (4th from right in second row) and Suly Chi (3rd from right in second row) join women CEs Brazil, Costa Rica, Colombia, Ecuador, Italy, Japan & Peru, at the II ICEHTMC-Sao Paulo. Participation by women grew over 100% compared to the 1st ICEHTMC- Hangzhou-2015.



Representatives from 49 countries at the II Global Clinical Engineering Summit in Sao Paulo on September 23, 2017.

Larry Fennigkoh: Newest ACCE Fellow

Congratulations to ACCE's newest fellow member, Larry Fennigkoh. Fellow status in the ACCE is a unique honor which recognizes distinguished service to the *profession* or achievement in the field of Clinical Engineering. We are pleased to welcome our newest Fellow Member: Larry Fennigkoh, PhD, CCE, fAIMBE, fACCE

"Your contributions span many decades in key areas of Clinical Engineering. Your significant contributions include creating a practical algorithm for risk-based maintenance, teaching and mentoring hundreds of Clinical Engineering professionals, contributing several high impacting articles and presentations, holding numerous leadership positions in professional organizations (ACCE, HTCC, IEEE, etc.) and being a leader in clinical engineering." said Arif Subhan, ACCE President.



2017 CCE Written Exam Review Webinar

The 2017 CCE Webinar series- 10 weekly sessions is underway, the series will conclude on October 11.

ACCE would like to thank:

Our four-knowledgeable faculty, who took time from their busy schedule to teach this series:



Matt Baretich



Ted Cohen

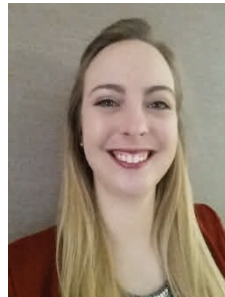


Tobey Clark

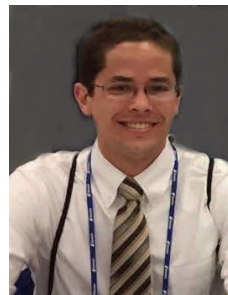


Frank Painter

Our two member volunteers who are moderating the series:



Samantha Herold



Joseph Ouellette

Thank you to the series co-sponsors:



Best of luck to the 43 webinar participants as they take their November Written Exam.

Welcome New Members

Join us in welcoming our newest members, approved by the Membership Committee and supported by the Board of Directors.

Name	Class	Job Title	Organization	Country
Manasi S. Ghatpande	Individual	Biomedical Engineering Manager	Choctaw Nation Health Services Authority	OK/USA
Tasneem Pishori	Individual	Clinical Engineer & Capital Planner	NorthShore Health System/ Aramark	IL/USA
Abdul Bukhari	Institutional/Individual	Senior Biomedical Engineer	VA Medical Center/Charleston	SC/USA
Arun Mathew George	Individual	Biomedical Engineer	Universal Hospitals LLC	UAE
Tosha Toba	Individual	Manager, Clinical Engineering	Virginia Mason Medical Center	WA/USA
Jaison Herrera	Associate	Sales Engineer	Multivac Centro America y Caribe	Costa Rica
Gregory Megaham	Associate	Clinical Engineer	Beaumont Hospital	MI/USA
Naveen Kuttikadan Joy	Individual	Assist. Manager	Universal Hospitals LLC	UAE
Elizabeth S.R. Cooper	Candidate	Graduate student/Intern	UCONN/UMASS Memorial Medical Center	MA/USA
Jaspreet Mankoo	Institutional/Individual	Clinical Engineer	VA Boston Healthcare System	MA/USA
Conor Olejarz	Candidate	Graduate student/Intern	UCONN/Baystate Health	MA/USA
Meaghan Erlewein	Candidate	Graduate student/Intern	UCONN/Yale New Haven Hospital	CT/USA
Ken Ottenberg	Individual	Vice President	HSS, Inc.	CO/USA

ACCE Calendar

October 2- 6

National Health IT Week

[For more info, click here](#)

October 12, 2017

Vendors: Their Perspective on Project Implementation

[For more info, click here](#)

October 21, 2017:

2nd Global Clinical Engineering Day

<http://global.icehtmc.com>

October 25-27, 2017

XXI Argentine Congress of Bioengineering and CE Workshop
Córdoba, Argentina

[For more info, click here](#)

November 4-18, 2017

2017 CCE Computerized Written Examination

[For more info, click here](#)

November 8-9, 2017

Connected Medical Device & IOT Security Summit
Baltimore, MD

[Registration](#)

November 9, 2017

Biomedical Engineering Assets on an IT network

[For more info, click here](#)

December 14, 2017

Planning for the Future: Importance of Equipment Lifecycle Analysis

[For more info, click here](#)

ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

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