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CMBES/SCGB Monthly e-Bulletin

June 2019

President's Message

From the desk of the President, Mike Capuano

I'm just back from attending our CMBES and also AAMI's conferences over the past 2 months. Information from these events led me to conclude that change is happening even more rapidly than previously predicted. The harnessing of big data (as indicated in Dr. Falk's keynote at the CMBEC42 Gala) is becoming not only possible but is now happening in abundance. This is reflected in our CMBEC scientific sessions and in many educational sessions at the recent AAMI conference in Cleveland. Access to data, even in our clinical engineering databases, is leading to more intelligent asset management, prioritization of replacement, and failure analysis.

Back to the recent CMBES conference in Ottawa; congratulations to Kim Greenwood and the CMBEC42 Organizing Committee. They did a fantastic job. The conference accomplished all that we expect from our annual premier event. More info will be coming out on the conference (including photos) in our upcoming newsletter in August. Look out for that!

Vice President's Message

From the desk of the Vice President, Andrew Ibey

We are just coming off a successful CMBEC42 conference in Ottawa, Ontario, Canada. What a fun, busy and socially interactive conference that delivered many current topics, a gala with a proper 'engineering' backdrop at the Canada Aviation and Space Museum and engaging Keynote Speakers. Thank you to those who attended this year, we really do count on your regular attendance to keep this event going. A shout out to our vendors, we rely on you for your support and reciprocate connecting with you in person. A special thanks to Kim Greenwood for his leadership and the planning committee to see this through and of course the Willow Group for keeping us all on track. I was involved in a student session and also the AGM and want to reiterate my message, please consider volunteering with CMBES! We cannot move this organization forward without new ideas and a fresh perspective to shape this society into the image that it needs to be for our national collective. Please reach out to us today and let us know your interests and we'll try to find a fit for your commitment. I hope everyone finds time to unwind in the summer months!

Island Health out of Victoria is giving away 40 bed mounted IV poles for the Hill Rom beds. The poles

are free of charge, but you would have to pay for shipping.

Please Contact Martin Poulin, Director, Biomedical Engineering at martin.poulin@viha.ca, 250-370-8063

CMBEC42 Conference Ottawa, Canada

From the desk of the CMBEC42 Chair, Kim Greenwood

Our annual Canadian Medical and Biological Engineering Conference (CMBEC) was held this year from May 21 to 24, 2019 in Ottawa, Ontario at the Ottawa Conference and Events Centre. This annual Society event has been held continuously since 1966. The conference included Clinical Engineering, Medical Device Innovation and Academic streams alongside of a comprehensive Continuing Education program. A Student Networking Session gave students the opportunity to gain the insights from the experienced membership from across the country in support of their career path planning. The Vendor Exhibit Hall of the conference was sold to near capacity this year. Attendance was significantly up this year over the last conference held in Ottawa in 2013 to about 260 attendees in total.

The conference was highlighted with four keynote addresses on a wide range of topics which included Dr. Molly Shoichet “Delivering the Promise of Regenerative Medicine”, Dr. Carl-Eric Aubin “From Scoliosis Treatment Simulators to the Montreal TransMedTech Institute”, Dr. Monique Frize “Gender Balance in Biomedical Engineering” and Dr. Tiago Falk on “Artificial Intelligence, Signal Processing and Wearables: Building Blocks for Healthcare Technologies of the Future”.

The Conference Gala and Awards Banquet were held at the Canadian Aviation and Space Museum where the Society’s recognition awards were presented to this year’s honoured recipients. This year the Society conferred fellowships on three of its members, Dr. Evelyn Morin of Queen’s University, Mr. Martin Poulin of Vancouver Island Health Authority and Mr. Mario Ramirez of the Hospital for Sick Children. An Early Career Achievement Award was given to Mr. Brendan Gribbons of Vancouver Lower Mainland Biomedical Engineering. Mr. Navtej Viridi of The Hospital for Sick Children was named Outstanding Canadian BMET for 2019.

The conference organizing committee included Kim Greenwood (Chair), Rachel Zhang, Marie Ange Janvier, Mark Asbil, Andrew Ibey, Hal Hilfi, Gnahoua Zoabli, Mark Asbil, Sreeraman Rajan, Xudong Cao, Marianne Fenech, Sarah Kelso, Murray Rice, Kyle Eckhardt, Kelly Kobe, Mike Capuano, Martin Poulin, Parisa Bahrami, Natalia Kaliberda and Kenza Loulidi.

Next year’s Conference will be held in Montreal in conjunction with the International IEEE Engineering in Medicine and Biology Society Conference from July 21 to 25, 2020.

Kim Greenwood
CMBEC 42 Conference Chair

SAVE THE DATE:

We will be co-hosting a conference in Montreal next year with IEEE. This conference is expected to be massive! Mark your calendars for CMBEC43/EMBC42 - 2020 Montreal, QC - July 21-25, 2020



The IEEE Engineering in Medicine and Biology Society is pleased to announce the **42nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society**, to be held in Montreal, Quebec, Canada, July 20th - 24th, 2020. The theme of the meeting is “Enabling Innovative Technologies for Global Healthcare”. As the worlds largest international biomedical engineering meeting. A broad array of scientific tracks will cover diverse topics of cutting-edge research and innovation in biomedical engineering, healthcare technology R&D, translational clinical research, technology transfer and entrepreneurship, and biomedical engineering education.

In addition to the high-profile keynotes, the conference program will feature mini symposia, workshops, special sessions, oral and poster sessions, sessions for students and young professions, sessions for clinicians and entrepreneurs, and exhibits from vendors and universities. Themes include:

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| <ul style="list-style-type: none"> Biomedical Signal Processing Biomedical Imaging and Image Processing Micro/Nano-bioengineering Cellular/Tissue Engineering & Biomaterials Computational Systems & Synthetic Biology Multiscale modeling Cardiovascular and Respiratory Systems Engineering Neural and Rehabilitation Engineering | <ul style="list-style-type: none"> Biomedical Sensors and Wearable Systems Biorobotics and Biomechanics Therapeutic & Diagnostic Systems and Technologies Clinical Engineering Biomedical & Health Informatics Biomedical Engineering Education and Society Translational Engineering for Healthcare Innovation and Commercialization |
|---|---|

Important Dates	Organizing Committee
<p>Sessions Proposals, Mini-Symposia, Workshops, & Special Sessions</p> <p>Submission deadline Nov 22, 2019</p> <p>Accept/reject notification Dec 19, 2019</p> <p>Final submission deadline Jan 16, 2020</p> <p>Full papers</p> <p>Submission deadline Jan 23, 2020</p> <p>Accept/reject Notification April 10, 2020</p> <p>submission deadline April 30,2020</p> <p>1-page papers (Research Poster Papers)</p> <p>Submission deadline April 17, 2020</p> <p>Accept/reject notification April 28, 2020</p> <p>Final submission deadline May 3, 2020</p>	<p>Conference Chair – Mohamad Sawan Westlake University</p> <p>Conference Chair – Carolyn McGregor Ontario Tech University</p> <p>Conference Chair – Atam Dhawan New Jersey Institute of Technology (NJIT)</p> <p>Finance Chair– Emilio Sacristan Universidad Autónoma Metropolitana Iztapalapa</p> <p>Program Chair –Benoit Gosselin Université Laval</p> <p>Program Chair –Joaquin Azpiroz Leehan Universidad Autónoma Metropolitana Iztapalapa</p> <p>Program Chair –Dominique Durand Case Western Reserve University</p> <p>Conference Editorial Board Chair – Riccardo Barbieri Politecnico di Milano</p>
<p>http://embc.embs.org/2020/</p>	

2019 CMBES Awards

From the desk of Awards Committee Chair, Murray Rice

Congratulations to the 2019 CMBES Awards Recipients

Outstanding Canadian BMET – Navtej Viridi (Toronto ON)

Early Career Achievement Award – Brendan Gribbons (Vancouver BC)

Fellow of CMBES (FCMBES) – Mario Ramirez (Toronto ON)

Fellow of CMBES (FCMBES) – Martin Poulin (Victoria BC)

Fellow of CMBES (FCMBES) – Evelyn Morin (Kingston ON)



From left to right: Mike Capuano, Evelyn Morin, Martin Poulin, Mario Ramirez, Brendan Gribbons, Navtej Viridi

Congratulations to the 2019 CMBEC42 – Paper Award Winners

Outstanding Research Competition:

Dr. Alison Clouthier (University of Ottawa) for the paper “Effect of Patellofemoral Geometry and Simulated Tibial Tubercle Osteotomy on Patellar Stability”

Student Paper First Prize:

Alexander Fernandes (Carleton University) for the paper “Effect of Lateral Resolution on Classifying Individual Finger Flexions Using Ultrasound”

Student Paper Second Prize:

Catriona Czynnyj (University of Ottawa) for the paper “Speed & Force Validation of an Improved

Intravaginal Dynamometer Design”

Student Paper Third Prize:

Abhishek Tiwari (Institut national de la recherche scientifique) for the paper “A Comparison of Two ECG Intra-beat Measurement Methods for HRV-Based Mental Workload Prediction of Ambulant Users”.

CCE Certification

CCE Certification at the CMBEC42 Conference

The Canadian Medical and Biological Engineering Conference (CMBEC) was held from May 21 to 24, 2019 in Ottawa, Ontario. CMBEC is the annual conference for the Canadian Medical and Biological Engineering Society that has been held continuously since 1966.

This year as usual the Canadian Board of Examiners for Clinical Engineering conducted the Canadian oral CCE examination at the CMBEC42 conference. Typically one to three candidates take both the written and oral CCE examinations annually in Canada. This year one candidate completed the oral exam at the conference. If CCE oral candidates cannot attend the annual CMBEC conference then other arrangements for the oral examination have and can be made to accommodate these individuals. Nearly ten percent of the active CCEs have the Canadian CCE certification designation at present.

The CMBEC42 conference includes several sessions chaired by ACCE members including "Clinical Informatics & Patient Safety" - Mario Ramirez, "Project Management in Clinical Engineering" - Timothy Zakutney - "Clinical Engineering Topics" - Dave Gretzinger and "Improving the Effectiveness of Medical Donations" - Dr. William Gentles.

There were four Certified Clinical Engineers on this year's conference organizing committee including Kim Greenwood, Marie Ange Janvier, Andrew Ibey, and Parisa Bahrami. Next year's CMBES Conference will be held in Montreal in conjunction with the International IEEE Engineering in Medicine and Biology Society Conference from July 21 to 25, 2020.

Kim Greenwood
ACCE Board Member at Large
kgreenwood@cheo.on.ca



AAMI Foundation and ACCE's 2019 Robert L. Morris Humanitarian Award winner Dr. William Gentles (right) and Kim Greenwood ACCE Board Director and CMBEC42 Conference Chair at CMBEC42 | Ottawa, Canada.

AAMI continued

(Continued from page 10)

nology management service at the Department of Veterans Affairs (VA) Charleston (SC) Medical Center (young professional).

• Colleen Haugen-Ortiz, CBET, site lead and client service technician at GE Healthcare for Sharp Memorial Hospital in San Diego.

HTLC members play a vital role in advancing the professional interests of clinical engineers, promoting the importance of the field, and serving as an important resource to AAMI staff. The new members are:

• Larry Hertzler, CCE, vice president of technical operations at Healthcare Technologies, a TRIMEDX company.

• Samantha Jacques, PhD, FACHE, director of clinical engineering at Penn State Health.

• Shelly Crisler, CCE, biomedical engineer for the VA Center for Engineering & Occupational Safety and Health in St. Louis.

• Angela Ferguson-Bennett, director of clinical engineering at TRIMEDX for Ascension Borgess Hospital in Kalamazoo, MI.

Cory Blacketer, HCISSP, CISSP, CAHIMS, medical device security consultant at CynergisTek.

AAMI Staff

Humanitarian Award Recipient at AAMI

This year's winner, William Gentles, was described as "a positive role model" with "a passion and dedication" for both humanitarian and clinical



engineering (CE) efforts around the world. Gentles, who has 50 years of experience in the healthcare technology management (HTM) field, has been the leader of the Canadian Medical and Biological Engineering Society’s “Tools for Techs” project since 2017, which has provided crowdsourced cash grants to frontline HTM professionals in Ghana, Mongolia, Tanzania, and Rwanda to purchase badly needed tools so they can be more effective in their roles. He also has administered the INFRATECH International Email Discussion Group on CE/HTM sponsored by the World Health Organization and the Pan-American Health Organization for nearly 20 years. Gentles said he will be contributing the funds associated with his award to the Tools for Techs project.

MEMBERSHIP UPDATES

From the desk of the Membership Committee Chair, Gad Acosta

Our country’s capital, Ottawa, provided the perfect meeting location for Medical, Biomedical, and Clinical Engineers and Technologists from across the nation during CMBEC42. I hope that if you had the chance to attend, you will be considering participating in social media by posting pictures and comments about your experiences. A new student chapter has been created in Toronto, and we will be preparing an article about the members of this important part of our society. Stay tuned! In the meantime, kindly join me in welcoming the new members of our society:

Sayward Fetterly	Ted MacLaggan	Darryl Manimbo
Reza Honarvar	Abdelrahman Abdou	Carley-Rose Horowitz
Sheng Zhang	Marie-Christine Bonneviot	Larry Clark
Stephanie Williams	Abhishek Tiwari	Edward Kwan
Dan Soutar	Chris Rivera	Roy Battilana
Carlo Menon	Nicola Brynn Billings	Iain G Thompson
Christopher Maby	Danny Gottselig	
Aida Hassani	Syed Zaidi	

Health Canada Medical Device Incident Mandatory Reporting

One of the advantages of hosting the CMBEC in Ottawa is that we have a better opportunity to connect with Health Canada. At this years past conference, we were fortunate to have session C1 -

Mandatory Reporting to Health Canada by Hospitals by Leanne Moore and Colleen Turpin from the Medical Device Bureau. The panel was another method for Health Canada to connect with hospitals and disseminate information, and for hospital biomedes to ask their questions. It was a successful session and we have posted the presentation on the CMBES website under Publications & Resources section.

<https://www.cmbes.ca/clinical-biomedical-engineering/publications-resources>.

Health Canada is publishing proposed Regulations Amending the Medical Devices Regulations (Post-Market Surveillance) in the Canada Gazette, Part I.

These proposed amendments would extend the provisions of the Protecting Canadians from Unsafe Drugs Act (Vanessa's Law) to medical devices by requiring manufacturers to provide Health Canada with safety information about devices once they are on the market.

The online consultation runs until August 26:

<http://ow.ly/guYk50uEpXG>



The International Federation for Medical and Biological Engineering (IFMBE) is hosting a conference in Rome, Italy October 2019.

[Download the presentation here](#)

<http://www.icehtmc2019.com/papersubmission.html>

Below is a call for papers/submissions by Tom Judd, Chair, IFMBE CED Board. Should you have any questions contact: ifmbe.ced.secretariat@gmail.com

1. **Please submit;** I uploaded 1 abstract this weekend after being inspired (as usual) by Adriana about how we can communicate to the non-HTM decision makers around the world, her Challenge #1, see AAMI presentation attached. I also plan to contact others about co-authoring a response to her Challenge #5 as well.
2. **Consider submitting even if you cannot attend,** as remote or previously videotaped presentations work (Kallirroi Stavrianou CED Secretariat can facilitate on our Zoom platform)!
3. Please strongly encourage others to submit now -



in your country, your societies, your networks, or Region of influence. In CED's May 11 CED Directory send-out to 3300 Health Technology/Health professionals from 199 countries globally, here are the terms of CED's support: To encourage Paper Submission from participants from all corners of the world, CED offers the following:

1. Each individual HT (CE-HTM) practitioner is invited to submit an Abstract. Maximum of 3 Abstracts per person. Up to 6 of the best abstracts for each topic area will be selected by the Faculty to be presented in parallel oral sessions; others will be shared at the Congress during poster sessions.
2. For those individuals whose Abstracts are selected for Oral Presentation, selected presenters must provide their own airfare to Rome; individuals are recommended to seek airfare assistance from their own company/hospital/university, and from their national CE-HTM society and/or from local sponsors. CED will waive registration fees for Selected Presenters; all participants must register.
3. CED will consider other on-site funding assistance sponsorship permitting. Each country should promote the Congress through its societies and publications and seek to identify and let Congress organizers know of potential Sponsors from their Region or Country.

Interested in publishing your story in the monthly e-Bulletin or the quarterly Newsletter? [Contact us](#) to discuss your topic!