IEEE Central Texas Newsletter

02 EDITORIAL Corner

IEEE CTS Chairman

Fawzi Behmann
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The Central Texas made strong efforts in September, to prepare for key and major deliverables in Q4 2019.

In this issue, we celebrate IEEE DAY with a program of multiple activities planned for October, ushering student branch program at 5 universities, and launching Student Outreach project on "Air Quality". Continue supporting chapters and affinity groups to deliver what is relevant to members and community. The Texas Technical Tour will start October 9 – 19 visiting key historic and scientific landmarks in 4 cities. Collaborate with societies, industry and communities into holding first-time IEEE Smart City Event in Austin scheduled for November 1st, followed by 1st Student satellite conference on Nov 8 and celebrate the accomplishments at CTS Year-end Appreciation Dinner planned for Dec. 1st.

3 2019 SMART CITY SUMMIT

2019 SMART CITY SUMMIT

IEEE

AUSTIN, TEXAS

Disruptive Technologies Enabling Innovative Smart City Use Cases (5G, IoT and AI)

IEEE

9 IEEE Member Development

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7 IEEE CTS EVENTS

Come and see our section events.

EDITORIAL Corner

Chairman, IEEE Central Texas Section

Fawzi Behmann

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A. IEEE Day:

IEEE Day's theme is: "Leveraging Technology for a Better Tomorrow". While the world benefits from what's new, IEEE focuses on what's next.

IEEE Day for 2019 celebrations can be scheduled anytime during the period October 1 to October 17.

IEEE Day was celebrated the first time in history when engineers worldwide and IEEE members gathered to share their technical ideas in 1884 by one of IEEE's precursor organizations, the American Institute of Electrical Engineers (AIEE)

In 2019, CTS has special prepared program representing multiple chapters and affinity groups, which include:

October 8
Event: **IEEE Day Networking & 5G Events**
Sponsor: IEEE CTS YP - Young Professionals; MTT – S, Microwave Theory and Techniques Society: APS – Antenna Propagation Society, IMS - Instrumentation & Measurement Society
Contacts: Jose Luis Lacavex, supported by Casey Latham

October 9
Event: **IEEE Day – Smart Cities**
•   **"Moving beyond pilot projects for smart cities: A look at Austin's smart city projects"**
Maggie Shillington, senior analyst on the Internet of Things (IoT) and Smart Cities research team, IHS Markit.
•   **"Leveraging content from Smart City Summit"**
Fawzi Behmann, Chair, 2019 IEEE Smart City Summit (SCS)
Sponsor: IEEE CTS Austin ComSoc & Signal Processing, Computer & EMBS Joint Chapters
Contact: Fawzi Behmann

October 17, 6pm - 8pm
"Deep Learning Classification Model for Medical Images using Keras"
Insights on how to leverage Deep Learning techniques in medical applications and more specifically how to use the Deep Learning Model to identify diabetic retinopathy and detect blindness before it happens.
Contact: Amy Daali, Ph.D.

October 21
Event: **a) Engineering Challenge** and **b) October Fest celebration**
The Engineering Challenge will involve young people and students, allowing them to learn (by doing) about the importance of project coordination alongside senior professionals. And we'll discuss ways to increase your creativity and leadership skills by engaging in community events.

Sponsor: IEEE CTS Austin WIE – Women In Engineering, TEMS – Technology & Engineering Management Society, YP – Young Professionals, EdSoc – Education Society
Contact: Leslie Martinich

B. Texas Technical Tour:

October 9-19, 10-day

Texas is the home to a number of centers of technical excellence of national importance, as well as several key IEEE historical awards celebrating technological breakthroughs. These will form the basis of a number of technology-oriented visits throughout Texas.
The Texas Technical Tour will start October 9 – 19 visiting key historic and scientific landmarks in 4 cities:
Houston (NASA, IEEE Milestone on Superconductivity, Rice University Computing activities),
San Antonio (Southwest Research Institute Technology Labs, the Alamo, The San Antonio Museum of Science and Technology, Toyota Plant Tour, plus others),
Austin (University of Texas Microgrid, Texas Super Computer Center, World Famous BBQ) and
Dallas (Texas Instruments Computer Center and other technical sites).

C. 2019 IEEE SMART CITY SUMMIT (SCS), Nov 1, Austin:

We are pleased to bring 2019 IEEE Smart City Summit (SCS) to Austin.

Date: November 1
Location: TACC-Texas Advanced Computing Center

We invite you to register at https://attend.ieee.org/scs-2019/registration/

Also, please help and circulate to your network of contacts/social media.
#smartcitysummit, #iot, #5g, #AI_ML_DL, #smartcities, #smartmobility, #smarthealth

Theme
The theme of summit will examine the effect of disruptive technologies on potential innovative use cases for Smart Cities, Mobility and Healthcare. Disruptive technologies being considered include IoT, 5G, and analytics AI/ML/DL.

Rich Program & Compelling Content

The summit is designed to bring strong involvement from the public sector, industry and academia aimed at deepening understanding, fostering a forum for dialog and collaboration, and defining actions needed to accelerate the adoption and deployment of disruptive technologies into key market segments within Smart Cities. This will be a strong one-day Summit with compelling content and 3 Keynote speakers and over 20 domestic and international speakers and panelists.

We are pleased to announce the following global and visionary Keynote Speakers:

KEYNOTE SPEAKERS

9:00am: Keynote #1
Patricia Florissi, Vice President and Global CTO for Sales, Dell/EMC

11:30am: Keynote #2
John Cole, Chief Executive Officer of skyTran

2:45pm: Keynote #3
David Atienza, Associate Professor of Electrical and Computer Engineering and head of the Embedded Systems Laboratory at EFPL, Switzerland

Patricia Florissi
KEYNOTE #1

John Cole
KEYNOTE #2

David Atienza
KEYNOTE #3
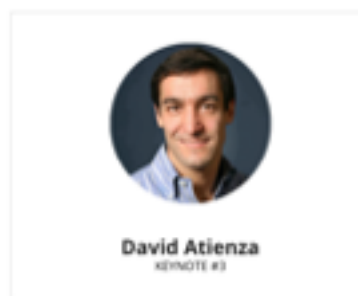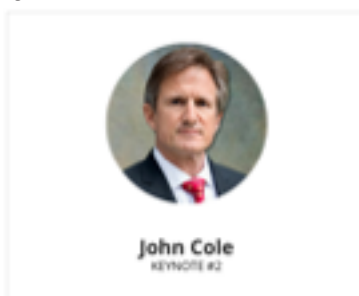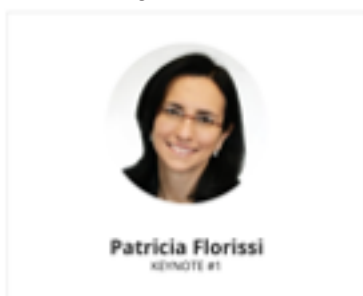
The program also includes:

- Three Panel sessions, each with a session chair and 5 subject matter experts, in the areas of Smart Cities, Mobility and Healthcare.
- Executive Recap Session.
- Companies, startups and consortiums will showcase their creative and innovative ideas and solutions toward smart cities.

Expected Outcomes:

- Increase understanding of issues and breakthroughs in the areas of smart cities, mobility and healthcare.
- Increase understanding of the rapid evolution of disruptive technologies such as IoT, 5G and AI/ML/DL and the emerging ecosystem of cloud-based solutions.
- Provide considerations for smart, scalable solutions in the context of smart city technology.

Registration:

The registration fee is discounted ($25, $46, $79 or $169). Registration includes rich program content, facilities (auditorium, A/V, etc.), AM and PM breaks with snacks and beverages, lunch box, networking reception and paid parking if requested. Thus, the value and benefits gained from the summit exceeds the registration fees.

Please register at https://attend.ieee.org/scs-2019/registration/
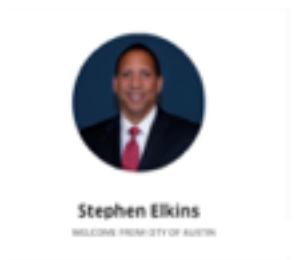
Sponsorship/Exhibitor:

If you wish to contribute, please check sponsorship and other opportunities available at: https://attend.ieee.org/scs-2019/sponsors/

If you have any question, please don't hesitate to contact me at f.behmann@ieee.org
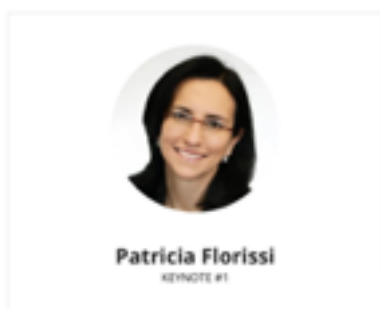
Schedule:

7:30 – 8:30am: Registration

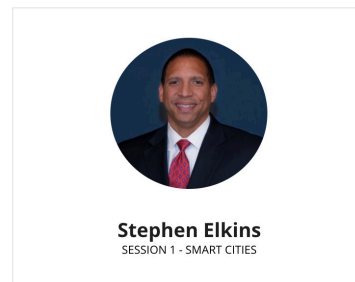*8:30 – 9:00am: Opening Remarks, Program outline and IEEE message*

Stephen Elkins
WELCOME FROM CITY OF AUSTIN

Dan Stanzione
WELCOME TO THCC

Fawzi Behmann
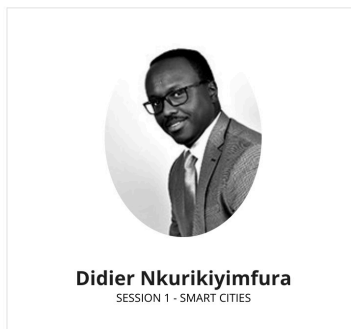INTRO TO SMART CITY SUMMIT

Tom Coughlin
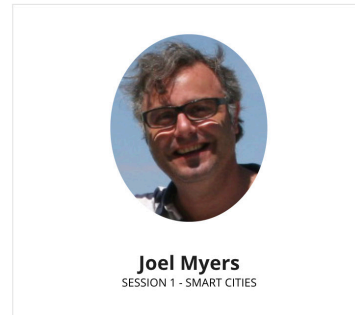REMARKS FROM THE IEEE

9:00am: Keynote #1

Patricia Florissi, Vice President and Global CTO for Sales, Dell/EMC

Patricia Florissi
KEYNOTE #1

9:30 – 11:00am : Session 1 " Smart Cities"

Highlight advancement and disruptive technologies such as IoT, 5G, Analytics, Blockchain and security and their impact in building smart cities. Provide a set of use cases and potential challenges.

Chelsea Collier
CHAIR - SESSION 1 - SMART CITIES

Konstatinos Champidis
SESSION 1 - SMART CITIES

Joel Myers
SESSION 1 - SMART CITIES

Rebecca Hammons
SESSION 1 - SMART CITIES

Didier Nkurikiyimfura
SESSION 1 - SMART CITIES

Stephen Elkins
SESSION 1 - SMART CITIES
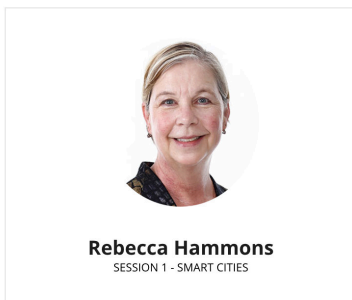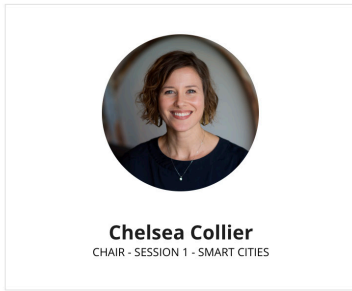
11:00 – 11:30am: Break & Networking

11:30am: Keynote #2
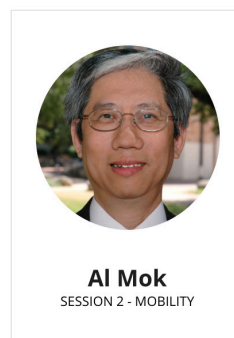
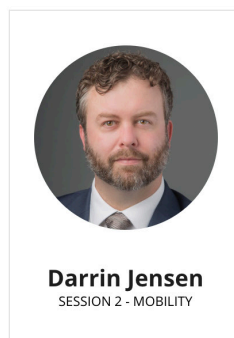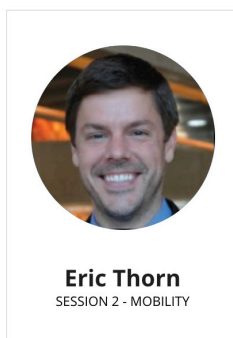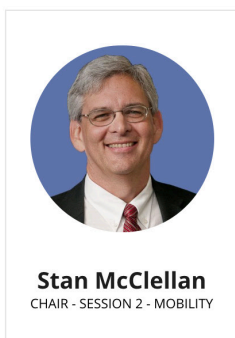*John Cole, Chief Executive Officer of skyTran*

John Cole
KEYNOTE #2

12:00 – 1:15pm : Lunch

1:15 – 2:45pm : Session 2 "Mobility and Autonomous Vehicles"

Explore transformation from ADAS-Advanced Assisted Automated System to Full Autonomous Vehicles with AI/ML for mobility and last mile.

Stan McClellan
CHAIR - SESSION 2 - MOBILITY

Eric Thorn
SESSION 2 - MOBILITY

Darrin Jensen
SESSION 2 - MOBILITY

Al Mok
SESSION 2 - MOBILITY

Dharm Singh
SESSION 2 - MOBILITY

2:45pm: Keynote #3

David Atienza, Associate Professor of Electrical Engineering & head of the Embedded Systems Laboratory at EPFL, Switzerland

David Atienza
KEYNOTE #3

3:15 – 3:30pm : Break & Networking

3:30 – 5:00 : Session 3 "Healthcare"

Explore transformation to smart health and wellness. Diagnosis, treatment and prevention. Smart hospitals/tele-health/Telemedicine and personalization

Sani Nassif
CHAIR - SESSION 3 - HEALTHCARE

Amy Daali
SESSION 3 - HEALTHCARE

Jean Anne Booth
SESSION 3 - HEALTHCARE

Semih Aslan
SESSION 3 - HEALTHCARE

Heena Rathore
SESSION 3 - HEALTHCARE

Roozbeh Jafari
SESSION 3 - HEALTHCARE

5:00 – 5:30 : Executive Panel Recap

Reflections and perspectives — 15 min
Audience Q&A — 15 min

5:30 – 6:30 : Showcase, Recruitment & Networking

D. 2019 October Special Events

In October, CTS continue to be active in the community and in outreach activities:

- **October 8**
  IEEE Day Networking & 5G Event
  Sponsor: IEEE CTS YP - Young Professional, MTT – xxx, APS – Antenna Propagation System, IM - Instrumentation & Measurement
  Contacts: Jose Luis Lacavex, supported by Casey Latham

- **October 9, 6-8 pm**
  "Moving beyond pilot projects for smart cities: A look at Austin's smart city projects"
  By Maggie Shillington, senior analyst on the Internet of Things (IoT) and Smart Cities research team, IHS Markit.
  "Leveraging content from Smart City Summit"
  By Fawzi Behmann, Chair, 2019 IEEE Smart City Summit (SCS)
  Sponsor: IEEE CTS Austin ComSoc & Signal Processing, Computer & EMBS Joint Chapters
  Contact: Fawzi Behmann
  https://events.vtools.ieee.org/m/205794

- **October 9-19, 10-day**
  Texas Technical Tours
  Houston (NASA, IEEE Milestone on Superconductivity, Rice University Computing activities),
  San Antonio (Southwest Research Institute Technology Labs, the Alamo, The San Antonio Museum of Science and Technology, Toyota Plant Tour, plus others),
  Austin (University of Texas Microgrid, Texas Super Computer Center, World Famous BBQ) and
  Dallas (Texas Instruments Computer Center and other technical sites).
  Contact: Scott Atkinson
  http://meetings.vtools.ieee.org/m/178799

- **October 17, 6-8pm**
  Deep Learning Classification Model for Medical Images using Keras
  Sponsor: CTS EMBS San Antonio Chapter
  Contact: Amy Daali
  http://meetings.vtools.ieee.org/m/205009

- **October 21, 6:30pm – 8:00pm**
  IEEE Day/OctoberFest/Engineering Challenge
  Sponsor: IEEE CTS Austin WIE – Women In Engineering, TEMS -, YP – Young Professional, EdSoc – Education Society
  Contact: Leslie Martinich
  https://meetings.vtools.ieee.org/m/204771

- **October 22/23, 8:00 am – 5 pm**
  NEC 2020 Changes Workshop – Prepare for 2020
  Sponsor: PI2 Austin
  Contact: James Mercier
  http://meetings.vtools.ieee.org/m/199185

- **October 29, 6:55ppm – 8:30pm**
  IEEE PI2 Austin, October 2019, Tech Meeting, "Electric and Hybrid-Electric Vehicles"
  Sponsor: PI2, Austin
  Register: http://meetings.vtools.ieee.org/m/205576
  Contact: pi2-secretary@ieee.org

E. OUTREACH

- **October 2, Brooklyn, NY**
  Supporting IEEE New York Chapter of Computer Society and IEEE NY SMC Society with NY IEEE Day 2019 Celebration Seminar - October 2 at LIU-Brooklyn. Fawzi Behmann, Distinguished Visitor of IEEE Computer Society was invited to present on the topic of "Virtualization – a key driver for 5G and IoT", October 2, Wednesday, 6~ 8:00 PM, at LIU-Brooklyn, Health Sciences Building.
- **October 15, CETA, Austin**
  Supporting Central Texas Electronics Association (SMTA). Fawzi Behmann, was invited to present on the topic of "Preparing for 5G and Collaborative Technologies in Austin", October 15, at Norris Conference Center, Austin.
- **October 22 & 23 PI2 - "NEC 2020 Changes" Workshop, Austin**
  A two-days workshop will be held on "NEC 2020 National Electrical Code changes" organized by James Mercier that will take place on October 22-23, 8 am- 5 pm, at Austin Scottish Rite Theater.

F. Volunteering, Ideas and Suggestions

The IEEE Central Texas Section offers great opportunities to participate in the growth of the section and its Chapters.

Opportunity to
- Join and grow chapters/Affinity group
- Speak on a subject you are passionate about
- Lead an activity that impact the community
- Help out
- Volunteer for an event
- Start a discussion group
- Invite others to be on the CTS Newsletter mailing list
Questions? Please send an email to Fawzi Behmann, Chair at f.behmann@ieee.org

Thank you for being part of the CTS mission to bring relevant topics, to be part of the dialog, discussion and networking events, and to serve our members and communities.

Chairman, IEEE Central Texas Section
Fawzi Behmann
f.behmann@ieee.org
Message from CTS Chairman

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