1. Slides will be posted on CTTC website
2. Minutes from GC 2019, ICC2020 will be approved today
3. If you have comments/questions on these slides, email ubli@usc.edu
4. We are still seeking information about CT projects related to Covid19, email ubli@usc.edu
   a. If you want to volunteer to help manage these pages, let us know
1. Welcome and Introduction
2. Approval of Minutes from 2019 GC, 2020 ICC meeting deferred to Globecom 2020/today (available at http://committees.comsoc.org/comt/)
3. Chair Remarks
4. 2020 Elections
5. 2020 CTTC Awards
6. Communication Theory Symposium Reports:
   - Globecom 2020 (Rui Dinis)
   - ICC 2021 (Elza Erkip)
   - (Globecom 2021 (Judy Zhu))
   - (ICC 2022 (Marios Kountouris))
7. Workshop Reports:
   - CTW 2021 (Andrew Eckford)
   - (CTW 2022 (Javi Lopez-Martinez))
   - (CTW 2023 proposal (Peter Hong))
8. Student Competition (Rui Dinis)
WHAT IS CTTC?

- We hold meetings twice per year:
  - At ICC and GLOBECOM.
- Become a member by joining the mailing list.
  - [http://committees.comsoc.org/comt/mailinglist.html](http://committees.comsoc.org/comt/mailinglist.html)
- You are an **active** member if:
  - Attend 2 of the past 5 meetings (ignoring ICC 2020); or
  - Attend last two CTWs; or
  - Provide significant service to the committee.
- Currently, ~600 members, ~120 of which are active.
OFFICERS

- **Chair**
  - Urbashi Mitra
  - University of Southern California, USA

- **Vice-Chair**
  - Maite Brandt-Pearce
  - University of Virginia, USA

- **Secretary**
  - Meixia Tao
  - Shanghai Jiaotong University
OTHER POSITIONS

Standards Liaison
Amitava Ghosh
Nokia Bell Labs

Student Competition Program
Rui Dinis
New University of Lisbon
Communication Theory Technical Committee (CTTC)
GC 2019, Waikoloa Hawaii
December 10, 2019
ATTENDANCE = 43

EXECUTIVE SUMMARY

1. The minutes from the ICC 2019 meeting were approved
2. CTTC structure and goals reviewed
3. An update was given on standards activities
4. CTTC awards again presented
5. Update of CTTC P&P provided; approved by attending members
6. Globecom 2019, ICC 2020, Globecom 2020 reports were given
7. CTW 2019, CTW 2020, CTW 2021, CTW 2022 reports were given
8. There was no new business
MAILING LIST INFORMATION

- Email list is comm-theory@ieee.org
  - Must be subscribed to send
  - Moderated: Must be approved by an officer
- Is a “quiet” list with few postings per year
- Standard acceptable uses:
  - CTTC-business: Meeting announcements, minutes, etc.
  - CFP for CTTC sponsored events: CTW and CT Symposia
- Special uses:
  - CT-related job openings posted by CT members: Postdoc & faculty
  - Niche workshops targeted to the CT community
  - Connection to CTTC must be clear/CT community involvement
- Not-acceptable:
  - CFP’s for conferences and workshops that are widely known
  - Advertising of graduate programs and announcements of fellowships
ELECTIONS 2020

- 2020 Nominations and Election committee
  - Elza Erkip
  - Mike Honig
  - Erik Perrins
- thank you for your service!
ELECTION SLATE

- **Chair**
  - Jeff Andrews, UT Austin
  - Iain Collings, Macquarie University

- **Vice Chair**
  - Tara Javidi, UC San Diego
  - Petar Popovski, Aalborg University
WELCOME OUR NEW CHAIRS

JEFF, Chair

PETAR, Vice-Chair

CTW Iceland banquet, 2019
CTTC gives out 3 distinct awards:
- Technical Achievement Award
- Outstanding Service Award
- Early Achievement Award
(can be multiple recipients or no recipients in a given category)
Call for Nominations sent in June/July
Awarded at following GLOBECOM, ICC, or CTW
Nominations due July 30 of every year
- Web forms on CTTC website

THANK YOU for the service of the committee (Maite, Costas, Erik, Junshan and Gerhard)
2020 CTTC AWARDS COMMITTEE

Maite Brandt-Pearce, Chair

Erik Perrins

Costas Georghiades

Gerhard Fettweis

Junshan Zhang
EARLY ACHIEVEMENT AWARD

- Recognizes young members of the CTTC who have achieved early career visibility in the field through research and service and who (i) have participated in the CTTC (e.g., attended CTTC meetings, attended CTW, served the CTTC in a significant capacity, been a member of the TPC for ICC/GLOBECOM) and (ii) are within 10 years of their Ph.D.

- Past recipients:
  - 2019: Walid Saad
  - 2018: Ayfer Ö zgür
  - 2017: Tony Q.S. Quek and Deniz Gündüz
  - 2016: Marios Kountouris
EARLY ACHIEVEMENT AWARD

Harpreet Dhillon
Virginia Tech, USA

For fundamental contributions to stochastic geometry and heterogeneous cellular networks
EARLY ACHIEVEMENT AWARD

Emil Björnson
Linköping University, Sweden

For contributions to MIMO communications and promoting wireless research through videos and social media
Recognizes members of the CTTC who have been involved with the committee, have done outstanding work in communication theory, and have achieved a high degree of visibility in the field.

Past recipients:
- 2019: Mohamed-Slim Alouini
- 2018: Elza Erkip
- 2017: Behnaam Aazhang and Michael B. Pursley
- 2016: Jack Winters
- 2015: John Proakis
- 2014: Reinaldo Valenzuela and Norm Beaulieu
TECHNICAL ACHIEVEMENT AWARD

Aylin Yener,
Ohio State University, USA

For contributions to physical layer security and energy harvesting communication systems
OUTSTANDING SERVICE AWARD

- Recognizes members of the CTTC who have a distinguished record of service to the communication theory community, including CTTC-sponsored symposia and workshop organization, leadership roles within the committee, and promoting committee activities and interests in the broader research community.

- Past recipients:
  - 2019: Andrea Goldsmith
  - 2018: None
  - 2016: Behnaam Aazhang
  - 2015: Sergio Benedetto
  - 2014: Ender Ayanoglu
  - 2013: Michael Rice
OUTSTANDING SERVICE AWARD

Angel Lozano
Universitat Pompeu Fabra, Spain

For decades of service and unparalleled commitment to CTTC and its mission
## Upcoming Conference Venues

<table>
<thead>
<tr>
<th>Conference</th>
<th>Location</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>GC’20</td>
<td>Taipei</td>
<td>7-11 Dec 2020</td>
</tr>
<tr>
<td>ICC’21</td>
<td>Montreal</td>
<td>14-18 June 2021</td>
</tr>
<tr>
<td>GC’21</td>
<td>Madrid</td>
<td>7-11 Dec 2021</td>
</tr>
<tr>
<td>ICC’22</td>
<td>Seoul</td>
<td>16-20 May 2022</td>
</tr>
<tr>
<td>GC’22</td>
<td>Rio De Janeiro</td>
<td>4-8 Dec 2022</td>
</tr>
<tr>
<td>ICC’23</td>
<td>Rome</td>
<td>28 May - 1 June 2023</td>
</tr>
<tr>
<td>GC’23</td>
<td>Kuala Lumpur</td>
<td>TBD</td>
</tr>
</tbody>
</table>
GLOBECOM 2020 (TAIPEI CITY, TAIWAN)

- 7-11 December, 2020
- Co-chairs
  - Rui Dinis, Nova Univ. of Lisbon
  - Marco Chiani, Universita di Bologna, Italy
  - Paschalis Sofotasios, Khalifa University of Science and Technology, UAE

- Statistics:
  - TPC members recruited: 132
  - Papers submitted: 124
  - Papers accepted: 53 (43% acceptance rate)
  - Sessions: 11

- Website: [https://globecom2020.ieee-globecom.org/](https://globecom2020.ieee-globecom.org/)
- Planned to be a hybrid conference
ICC 2021 (MONTREAL, CANADA)

- **14-18 June, 2021**
- **Co-chairs**
  - Elza Erkip, New York University
  - Achilleas Anastasopoulos, University of Michigan
  - Ranjan Mallik, IIT Delhi

- **Call for Papers ready, website to go live soon**

- **Please contact co-chairs to volunteer for the TPC if you are interested.**

- **Current dates:**
  - Paper Submission: 12 October 2020
  - Acceptance Notification: 25 January 2021
  - Camera-Ready: 22 February 2021
Xu (Judy) Zhu
The University of Liverpool
Liverpool, UK
xuzhu@liverpool.ac.uk

Syed A. Jafar
University of California, Irvine, CA
USA
syed@uci.edu

Sofie Pollin
KU Leuven
Leuven, Belgium
Sofie.Pollin@kuleuven.be
ICC 2022 (RIO DE JANEIRO, BRAZIL)

- **Co-Chairs:**
  - Marios Kountouris, EURECOM, France
  - Elif Uysal, METU, Turkey
  - Youngchul Sung, KAIST, Korea

- **Statistics:**
  - TPC members recruited: TBD
## UPcomings CTW VENUES

<table>
<thead>
<tr>
<th>Conference</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTW’21</td>
<td>Banff, Alberta, Canada</td>
<td>May 2021</td>
</tr>
<tr>
<td>CTW’22</td>
<td>Marbella, Spain</td>
<td>May 2022</td>
</tr>
<tr>
<td>CTW’23</td>
<td>Asia</td>
<td>May 2023</td>
</tr>
</tbody>
</table>
Same place, new dates
May 30 – June 2, 2021
- ICASSP will be in Toronto
June 6-12
- ICC will be in Montreal June 14-21

The following are the Globecom 2019 slides with COVID updates in boxes
ORGANIZING COMMITTEE

- **General Chairs**
  - Andrew Eckford (York University, Canada)
  - Julian Cheng (University of British Columbia – Okanagan, Canada)

- **TPC Chairs**
  - Behnaam Aazhang (Rice University, USA)
  - Natasha Devroye (University of Illinois at Chicago, USA)

- **Finance Chair**
  - Anas Chaaban (University of British Columbia – Okanagan, Canada)

- **Poster Chairs**
  - Yindi Jing (University of Alberta, Canada)
  - Shahram Shahbazpanahi (Ontario Tech, Canada)

- **Data Competition Chairs**
  - Nariman Farsad (Ryerson University, Canada)
  - Jakob Hoydis (Nokia Bell Labs, France)

No changes – same committee
Keynote 1: Frank Kschischang  
University of Toronto, Canada

Keynote 2: Merouane Debbah  
Huawei, France

Keynote 3: Sennur Ulukus  
University of Maryland, USA

No changes to program as yet but minor changes may happen

We plan to keep the same program to the extent possible; updates at Globecom
Session 1: Neuromorphic sensing, learning, and communications  
Chair: Osvaldo Simeone (King’s College London, UK)

Session 2: Inference for graph-based information  
Chair: Negar Kiyavash (Georgia Tech, USA)

Session 3: Coding for Computing and Learning  
Chair: Daniela Tuninetti (University of Illinois at Chicago, USA)

Session 4: Machine Learning and Signal Processing for Network Data  
Chair: Santiago Segarra (Rice University, USA)

Session 5: Communication Theory Put into Practice  
Chair: Tara Javidi (University of California San Diego, USA)

No changes to program as yet but minor changes may happen  
We plan to keep the same program to the extent possible; updates at Globecom
Industry Panel 1

5G Use Cases
Chair: Ivo Maljevic (TELUS, Canada)

Industry Panel 2

Convergence Bounds and Experimental Rigor: How can we know that machine learning systems will work?
Chair: Matt Nokelby (Target, USA)

No changes to program as yet but minor changes may happen
We plan to keep the same program to the extent possible; updates at Globecom
TECHNICAL PROGRAM

- Poster Session
  - Deadline: February 24, 2020
  - Award for best poster
  - (Reminder: No published proceedings)

- Data Competition
  - Outdoor localization challenge using a real-world dataset
  - Award for best performance

No changes to program as yet but minor changes may happen

We plan to keep the same program to the extent possible; updates at Globecom
How to get there:

- Calgary International Airport (YYC)
- Take the direct shuttle bus or rent a car

What to do (other than hear about world-class research):

- Hiking, hot springs, gondola rides, whitewater rafting, golf, mountain biking, wildlife spotting, spas, dining ...

Very family friendly!

At present Banff National Park and Canada-US border are closed; international travelers to Canada must self-isolate for 14 days.

These restrictions must be lifted to have a successful CTW.
## Expected Costs

### Registration

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Early ComSoc Member</td>
<td>US$549</td>
</tr>
<tr>
<td>Early ComSoc Student</td>
<td>US$299</td>
</tr>
</tbody>
</table>

**Early Registration Deadline:** March 14, 2020

### Accommodation

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairmont Banff Springs Hotel</td>
<td>US$258/night (CA$343/night)</td>
</tr>
</tbody>
</table>

**Costs will likely be the same**

*Update at Globecom*
We will probably change the URL to ctw2021
- Budget was officially approved by ComSoc as of 22-Jan-2020

- Conference hosting services were activated as of 18-Feb-2020

- Hotel:
  - MMSA was agreed / SOW was close to be agreed (Hotel - agency - IEEE)
  - Contracts were to be signed along March 2020

- Technical program:
  - Some preliminary topics for sessions were discussed by TPC Chairs
  - Definition was postponed due to the uncertainty on CTW’20
CTW’20 cancellation notice by Mike Honig (17-Mar-2020)
- CTW’20 (Banff) → CTW’21 (Banff)
- CTW’21 (Marbella) → CTW’22 (Marbella)
- CTW’22 (Asia) → CTW’23 (Asia)

Spain was hit VERY hard by COVID’19 (Tourism is 13% of nation’s GDP)
- New conditions (dates/pricing) would need to be negotiated with the Hotel from scratch
- Many luxury hotels are likely to be shut down because of COVID’19 (our venue?)
- Budget needs to be redesigned (new worst-case scenario with lower attendance)
Our view as organizing (and also local) committee

- CTW in Marbella may not be feasible under the same conditions as before
- Downsizing the requirements could be an option
  - Less expensive hotel with cancellation flexibility (in Malaga, not Marbella?)
  - Use a University-owned (gorgeous and free) venue within walking distance of hotel
- IEEE/ComSoc need to consider easing the contract-signing procedures (nightmare!)
2023 CTW in Sun Moon Lake

IEEE Communication Theory Workshop 2023
Sun Moon Lake, Nantou, Taiwan

Tony Quek (Singapore University of Technology and Design, Singapore)
Yao-Win Peter Hong (National Tsing Hua University, Taiwan)
Wei Yu (University of Toronto, Canada)
### DATES

- **IEEE Communication Theory Workshop 2023**
  - **CTW 2023** will be held on **May 21-24, 2023**?
  - **July 2-5, 2023 (after ISIT)**?

- **Other conferences in 2023**

<table>
<thead>
<tr>
<th>Conference</th>
<th>Dates</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC</td>
<td>28 May-1 June</td>
<td>@ Rome, Italy</td>
</tr>
<tr>
<td>ICASSP</td>
<td>7-12 May</td>
<td>@ Kos Island, Greece</td>
</tr>
<tr>
<td>ISIT</td>
<td>25-30 June</td>
<td>@ Taipei, Taiwan</td>
</tr>
<tr>
<td>SPAWC</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>
Sun Moon Lake, Nantou, Taiwan
Sun Moon Lake
Nantou, Taiwan

Shuttle buses from ISIT to CTW.
Shuttle buses from Airport to CTW.
LOCAL ATTRACTIONS

Sun Moon Lake  Nantou, Taiwan

- A beautiful alpine lake. Diffused misty clouds and distinct mountain views all evoke poetic and romantic scenes.

Local Attractions

- Xiangshan Bikeway
- Sun Moon Lake
- Hanbi Trail

- The Formosan Aboriginal Culture Village
- Jiji Green Tunnel
- Ita Thao Pier
- Ci'en Pagoda
HOTEL VENUE

Fleur De Chine

- Fine dining, multifunction banquet / meeting center
- The first hot spring of Sun Moon Lake

- Hotel with the best view of Sun Moon Lake
- Room price (standard):
  - EUR235 (USD280) / night
- 3 conference rooms:
  - 215 ~ 430 m²
  - max. 120 ~ 270 participants
QUESTIONS & COMMENTS?
ALTERNATIVE LOCATION 1

Anping, Tainan, Taiwan

- **Room price (standard):**
  - EUR118 (USD134) / night

- **Conference rooms (classroom style):**
  - 142 m², max. 80 participants

- **Airport → THSR Taoyuan Station → THSR Tainan Station → Venue**

- **Sicao Mangrove Green Tunnel**
- **Hotel**
- **Conference Room**
- **Anping Fort (Anping Shuitou)**
- **Eternal Golden Castle**
- **Anping Kaifai Tianhou Palace**
- **Anping Sunset Platform**
- **Anping Canal Tour**

- Igniting a thirst for more knowledge about the colonial period.
- Beautiful sunset and canal tour.
Taroko, Hualien, Taiwan

- **Room price (standard):**
  - EUR218 (USD247) / night

- **Conference rooms (classroom style):**
  - 224 ~274 m², max. 70~90 participants

- **Airport ➔ MRT ➔ Taipei Main Station ➔ Train ➔ Hualien Train Station ➔ Bus ➔ Venue**

- Amazing sights, beautiful trails, simplicity and pure nature.
Communications Technology Changing the World

- Annual student competition for future leaders in communications and networking.
- Recognizes students or teams of students who demonstrate the capacity to improve the lives of people, through the application of communication technology and the development of projects that meet the human needs of people.
- The winning student (or student team) can earn up to US$2,000.
- Leader or the individual of the First prize invited to receive the prize at next IEEE GLOBECOM (expenses paid).
- Submission deadline – Mid August
- More details can be found in [https://www.comsoc.org/education-training/ieee-comsoc-student-competition](https://www.comsoc.org/education-training/ieee-comsoc-student-competition)
So happy to have had the chance to serve

Worked with great colleagues, including
- Erik Perrins (Chair when I was Vice Chair)
- Philippa Martin (Secretary when I was Vice Chair)
- Maite Brandt-Pearce (wonderful Vice Chair with me)
- Meixia Tao (excellent Secretary with me)

Thanks to ComSoc staff –
- For our election: Cyn Sikora and Vinoo Mathew

Too many CTTC highly active colleagues to name in person, but prior Chairs, Vice Chairs, CTW Steering Committee members, WICE leadership etc. have served as insightful advisors – you have my gratitude

Until we meet again in person
- A Happy, Healthy, Peaceful, Fulfilling 2021 to you all