Agenda

- Welcome & Introduction
- Approval of the agenda
- Highlights of the Globecom 2019 meeting
- Approval of the meeting minutes
- Background about TI TC
- Discussion on new activities
- Election of officers
- Report on standards activities
- Report on awards
- Report on conferences
- Planning activities for 2020-2022
- Any other business
Participation in the TI TC Online Meeting

- Please, send a message in the chat box and provide your name, affiliation, email address during the meeting

- This is extremely important to track your participation in our meetings
How to Join the TI TC?

- We hold two meetings every year:
  - At ICC and Globecom
  - https://ti.committees.comsoc.org/

- Become a member by joining our mailing list:
  - https://ti.committees.comsoc.org/mailing-list/

- You are an active member if you have attended two or more of the prior five regularly scheduled TC meetings

- You are a voting member if you are an active member or have substantially contributed to the TI Technical Committee activities
Meeting was chaired by Meryem Simsek

Discussed items:

- Discussion on conference activities
- Discussion on P&Ps
- Start special interest groups once enough strength in multiple directions
- Dr. Holland presented updates on TI standards
- Selection of awards committee members:
  - Meryem Simsek
  - Falko Dressler
  - Oliver Holland
  - Frank Fitzek
  - Stefano Giordano
Brief History of the TI TC

- Started as a technical sub-committee in June 2015 with
  - Meryem Simsek, Latif Ladid, and Mischa Dohler as officers

- Summer 2018 evaluated to a TC with
  - Meryem Simsek, Falko Dressler, Oliver Holland as officers

- Initiated an IEEE standardization working group on the Tactile Internet, IEEE P1918.1

- Organized various workshops, tutorials, special sections, tracks in flagship conferences as well as various special issues in IEEE journals

- Highly active and engaged members with very interactive meetings including guest speakers
Standardized definition:

“A network or network of networks for remotely accessing, perceiving, manipulating or controlling real or virtual objects or processes in perceived real time by humans or machines.”
The objectives of the TI technical committee are to facilitate the worldwide harmonization of research, standardization and best practices for deployment user scenarios of the global TI ecosystem, to design the built-in security and privacy and to explore ways the tactile technology can be realized in different segments such as in engineering, automobile, transport and logistics, health service, and public. The TI technical committee will target the understanding of the tactile requirements, defining system specifications to meet these requirements, and developing breakthrough technology to the identified challenges of the tactile internet.
Report on Activities

- Tactile Internet track within SAC Symposium at IEEE Globecom 2018, 2019, 2020 and IEEE ICC 2020
- Sponsoring other symposia at ICC and Globecom, e.g. Next-Generation Networking & Internet, IoT & Sensor Networks
- Organization of various workshops, tutorials, special sessions and special issues
- Sponsoring of other conferences, e.g., COMSNETS 2021
Report on Activities

- World wide new TI centers/research groups are opening, e.g., Canada, Germany, UK, Abu-Dhabi, Lebanon, and the USA.

- Standardization activities are ongoing

- Engagement with other TCs, e.g. IoT, Ad Hoc & Sensor Networks, Information Infrastructure & Networking, Network Intelligence (ETI)
  - A new SIG on “IoT and the Tactile Internet” will be proposed under the IoT-AHSN TC, Chaired by Meryem Simsek and Sharief Oteafy. The SIG will focus on leveraging IoT and ad hoc networks in Tactile Internet cognizance

- Preparation for officers election

- Discussion on awards and awardees
Report on Activities

- **Publications and Journal activities**
  - Various activities, i.e., book, journal special issues (detailed in slides 9-11)

- **The website has been updated**
  - A new tab on 'Best readings' has been added
  - List of various articles has been added
  - Hint to contact the officers for listing a related article
  - Meetings including slides and minutes are uploaded
  - P&Ps have been uploaded

- **Support of the IEEE ComSoc student competition**
The competition, Communication Technology Changing the World, 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.

Submission deadline **15 August, 2020**
Candidates:
- Chair position: Meryem Simsek
- Vice-chair position: Falko Dressler, Venkatesha Prasad
- Secretary: Oliver Holland

Current list of voting members:

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IEEE:
- IEEE P1918.1 working group on the Tactile Internet continues activities. Close to finalizing remaining aspects of its architecture and associated text, as is the last item needed before completion towards balloting. There have been recent significant contributions to the use cases and architecture within IEEE P1918.1.
- IEEE P1918.1.1 Haptic Codecs group has completed definition of its zero-delay and delay-bounded kinaesthetic codecs. In the final stages of choosing its tactile codec among 2 proposals.

ETSI:
- Work item on IPv6 for the Tactile Internet

IETF:
- Various contributions on higher layers and network coding
Report on Awards

- As a part of the TI activities, Recognition Award, Technical Contribution Award, and Publication Award are established.

- Current awards committee:
  - Meryem Simsek
  - Falko Dressler
  - Oliver Holland
  - Frank Fitzek
  - Stefano Giordano

- We have received nominations for the recognition award and technical contribution award and decided on the awardees.

- Awardees will be announced via email soon!
Report on Conference Activities

- IEEE WCNC 2016: Workshop on “IEEE International Workshop on 5G & Beyond – Enabling Technologies and Application with focus on the Tactile Internet & Vertical Industry” (workshop program)
- IEEE Globecom 2016: Workshop on “Ultra-Reliable and Low-Latency Communications in Wireless Networks (URLLC)”
- IEEE WCNC 2017: Workshop on “5G & Beyond – Enabling Technologies and Applications with focus on the 5G Tactile Internet (5G TACNET)”
- IEEE Globecom 2017: Workshop on “Ultra-Reliable and Low-Latency Communications in Wireless Networks (URLLC)”
- IEEE ICC 2018: Workshop on “5G & Beyond – Enabling Technologies and Applications with focus on the 5G Tactile Internet (5G TACNET)”
- IEEE Globecom 2018: Workshop on “Ultra-Reliable and Low-Latency Communications in Wireless Networks (URLLC)”
- Starting 2021, co-sponsoring the symposia on Next-Generation Networking & Internet, IoT & Sensor Networks
Report on Conference Activities

• Workshops and Special sessions:
  
  • European Wireless 2020 special session on Tactile Internet
  • ISWCS 2020 2021 special session on Tactile Internet
  • IEEE SPAWC 2018 Special session on Low Latency Communications in Cooperative Networks
  • IEEE INFOCOM 2019 Workshop on Ultra-Low Latency in Wireless Networks (ULLWN)
  • IEEE GLOBECOM 2020 Workshop on Information Freshness, Communications, Control, and Computing for Industrial IoT.
  • ISWCS 2020 2021 Special Session on Age of Information
Report on Conference Activities

• Tutorials:
  • ICC 2020: "Tactile Internet with Human-in-the-Loop"
  • Globecom 2019: "Tactile Internet with Human-in-the-Loop"
  • ICC 2019: 5G Tactile Internet with Human-in-the-Loop
  • IEEE/CIC ICCC 2020 Tutorial on Age of Information as a New Data Freshness Metric in the IoT Era: From Theory to Implementation
  • IEEE GLOBECOM 2020 Tutorial on Age of Information: Theory, Applications, and Testbed Implementation

• Special Issue:
  • IEEE Internet of Things Journal Special Issue on “Age of Information and Data Semantics for Sensing, Communication and Control Co-Design in IoT”
Planning Activities for 2020-2022

- Increase membership and participation
- Involve our members
- Open calls for participation to the TI TC activities will be continued
- Special interest groups should be launched
- Engagement with other TCs and societies
Other Business

- Total number of subscribers to the mailing list: 186 (It was 176 in December 2019!)
- Website administration
- Suggestions for improvements?
- Further ideas?