



Agenda

- ▶ Welcome & Introduction
- ▶ Highlights of the Globecom 2017 Meeting
- ▶ History of the TI-TC
- ▶ Election of new positions
- ▶ Discussion on new activities
- ▶ Report on standards activities
- ▶ Report on conferences
- ▶ Report on publications
- ▶ Any other Business

ETC Meeting at Globecom 2017



Highlights of the Globecom 2017 Meeting

- ▶ More publicity is requested
- ▶ Report of activities:
 - Workshops organized at ICC, WCNC, and Globecom
 - Tutorials organized
 - New Tactile Internet track at IEEE Globecom SAC Symposium
 - Special issue in JSAC
 - Special issue in Proceedings of IEEE
 - Standardization activities
 - New projects on TI globally!

Highlights of the Globecom 2017 Meeting

- ▶ Teaser talk by Toktam Mahmoodi
- ▶ Updates by Peter Rost on TACNET, a federal funded project on TI
- ▶ Updates by Alireza Shams on Finnish TI project
- ▶ The website still requires some poolishing

Highlights of the Globecom 2017 Meeting



Tactile Internet Emerging Technical Subcommittee

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Welcome to Tactile Internet Emerging Technologies Subcommittee



Recently, the Tactile Internet has been defined by the IEEE P1918.1 Tactile Internet ad-hoc definition group as "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 Tactile Internet (TI) Technical Sub-committee will focus on exploring and elucidating all facets of the next generation of "Tactile Internet" technology, business and societal gaps and challenges.

Extremely low latency in combination with high availability, reliability and security will define the character of TI. It will have a marked impact on business and society, introducing numerous new opportunities for emerging technology markets and the delivery of essential public services.

Prof. Dr.-Ing. Dr. h.c Gerhard Fettweis (Technical University Dresden, Germany) describes the tactile internet as "It is nothing less than a new level of the digital revolution". He presented the tactile internet in various organizations, e.g., in Steinbeis-Europa-Zentrum, which is a center for research and industrial collaboration in Europe: http://download.steinbeis-europa.de/2013-10-29-30_CPS/29102013-cps-fettweis-vodafone.pdf or in the wireless world research forum: http://www.wwf30.ch/tl_files/Themes/wwf30/wwf30_documents/Gerhard%20Fettweis%20WRF%202013%2004%2024.pdf

The objectives of the TI Sub-committee are to facilitate the worldwide harmonization of research, pre-standardisation 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 Sub-committee will target the understanding of the tactile

History of the TI-TC

- ▶ Proposed at ICC`15 as a technical initiative/sub-committee and directly accepted
- ▶ More than 10 workshops and tutorials organized since then in IEEE ComSoc flagship conferences
- ▶ Started the standardization working group IEEE P1918.1 in 2016
- ▶ Two special issues in IEEE JSAC and Proceedings of IEEE
- ▶ Starting in 2018, a new TI track in Globecom SAC
- ▶ A technical committee since Globecom 2017

Election of New Positions

- ▶ Chair: Meryem Simsek
- ▶ Co-chair: Falko Dressler
- ▶ Secretary: Oliver Holland
- ▶ Publicity chair: Latif Ladid
- ▶ Other? standardization

Discussion on New Activities

- ▶ Proposition paper to distinguish from IoT and 5G
- ▶ Special interest groups
 - Architecture
 - Applications
 - Edge intelligence
- ▶ Journal? Series?
- ▶ Symposium, track, conference, workshop
- ▶ Newsletter

Report on Standards Activities

- ▶ Standardization activities:
- ▶ ETSI: Work item on IPv6 based Tactile Internet within the ISG IPv6
 - Lead by Meryem Simsek
 - Supported Toshiba Research Europe
 - Final version under review
- ▶ IEEE:
 - IEEE P1918.1 working group on the Tactile Internet continues activities
 - IEEE P1918.1.1 Haptic Codecs group has defined the requirements for haptic codecs and continues its activities

Report on Conferences

- IEEE ICC 2015: Workshop on "[5G & Beyond – Enabling Technologies and Applications](#)"
- IEEE Globecom 2015: Workshop on "[Ultra-Low Latency and Ultra-High Reliability in Wireless Communications](#)"
- 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 Globecom 2016: Workshop on "[Wireless Networking, Control and Positioning for Unmanned Autonomous Vehicles](#)"
- 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 \(URLLC\)](#)"
- IEEE Globecom 2018: TI track in Selected Areas of Communications (SAC) Symposium
- IEEE Globecom 2019: TI track in Selected Areas of Communications (SAC) Symposium

Report on Publications

- ▶ Special issue in JSAC <https://www.comsoc.org/jsac/cfp/emerging-technologies-tactile-internet-and-backhaulfronthaul-networks>
- ▶ Special issue in Proceedings of IEEE
<http://proceedingsoftheieee.ieee.org/upcoming-issues/tactile-internet/>

Other Business

- ▶ Total number of subscribers to the mailing list: 136 (It was 127 in December`17!)
- ▶ Website administration
- ▶ Suggestions for improvements?
- ▶ Further ideas?