



## Haptic Codecs for the Tactile Internet Task Group (P1918.1)

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### Call for Requirements

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The Haptic Codecs (HC) Task Group aims at developing a new standard on Haptic Codecs for the Tactile Internet (TI). This standard will address TI application scenarios where the human is in the loop (i.e. teleoperation or remote touch applications) as well as scenarios that rely on machine remote control. The standard will define (perceptual) data reduction algorithms and schemes for both closed-loop (kinesthetic information exchange) and open-loop (tactile information exchange) communications, and also specify mechanisms and protocols for the exchange of capabilities of haptic interfaces.

This Call for Requirements seeks specific requirements for this new standard (P1918.1.1). Responses should be application and network agnostic. The contributions should indicate specific requirements including:

- Requirements for the development of
  - protocols and handshaking mechanisms for plug-and-play haptic communication (including the exchange of metadata and capabilities such as workspace, number of degrees of freedom, amplitude range, temporal and spatial resolution, etc.)
  - kinaesthetic codecs (for both non-delay and delay-robust communication of kinaesthetic information)
  - tactile codecs (for both single-point and multi-point (area-based) tactile information)
- Requirements for the design of
  - objective quality evaluation metrics
  - subjective quality evaluation metrics
- Requirements for the implementation of
  - a reference hardware system
  - the reference software
  - Audio/video/haptic multiplexing

Please include other relevant requirements not specifically mentioned above.

#### **Deadline for contributions: February 28, 2017**

The requirements document for “Haptic Codecs for the Tactile Internet” (P1918.1.1) will be finalized based on the contributions to this call in the first dedicated meeting of the HC Task Group, **March 9-10, 2017**, Abu Dhabi.

Please submit your contribution(s) via the IEEE Standards Association Collaboration Portal at <https://ieeesa-meetcentral.com/p/ZgAAAAAfe2K>. Please additionally email your contribution(s) to [eckehard.steinbach@tum.de](mailto:eckehard.steinbach@tum.de) with cc to [mohamad.eid@nyu.edu](mailto:mohamad.eid@nyu.edu) and [qian.liu@tum.de](mailto:qian.liu@tum.de).

Questions regarding this Call for Requirements can be sent to Prof. Eckehard Steinbach, Chair of the HC Task Group, at [eckehard.steinbach@tum.de](mailto:eckehard.steinbach@tum.de).