Study Session 8 Wearable Systems and Equipment

Report PT 100-10

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AGS Meeting 17 May 2017 Singapore

PT 100-10 Meeting 15 May 2017 Singapore (20 participants)

- Discussion related to revised title and scope TA 16 to include wearable electronic devices and technologies
- Report IEC TC 124 Wearable Devices
  - 2017 International Standardization Forum on Wearable Smart
  - IEC TC 124 Wearable Devices
  - Report from JTC 1 Wearables
- CTA overview of wearable standardization activities
- Information sharing on possible NPs on XR
- Status reports
  - NP on Listening Functionality (CD expected for autumn 2017)
  - IEC 63071 Power supplying scheme (published in Dec. 2016)
  - Stage 0 project Wearables user comfort and evaluation

PT 100-10 Update

- Combined results of PT 100-10 and 100-13 into one TR as deliverable (closed PT 100-13 in Frankfurt)
  - To collect use cases on wearable systems and equipment and identify opportunities for additional standardization in TC100 on the topic
  - To study user comfort aspects of smart textiles and wearables
  - WD prepared for 8 weeks review (7 July 2017)
- Co-Project leaders:
  - Ms. Ulrike Haltrich (DE), Mr. Junichi Yoshio (JP)
- Experts:
  - Mr. Hong Zhang (CN), Ms. Li Wang (CN), Ms. Iris Straszewski (DE), Ms. Dr. Kate Grant (UK), Ms. Zhao Xiaoying (CN); Mr. Pekka Talmola (FI); Mr. Tomoo Nishigaki (JP)

3

TC 100/PT 100-10 - Wearable system and equipment

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Comfort aspects

- Tangible characteristics (e.g. weight), subjective characteristics (e.g. design) and situational factors (e.g. usage)
  - Miniaturisation
  - Design
  - Usage
  - Usability
  - Performance
  - Flexibility and stretchability
  - Cleaning and washability
  - Weight
  - Sense of touch

5

Functional aspects

- Functional aspects describe what features should be provided by the devices, as well as evaluating the device performance, reliability, security and safety.
  - Hazardous chemicals and toxicity of materials
  - Biocompatibility
  - Electrical safety and electromagnetic compatibility
  - Antenna performance
  - Battery life
  - Reliability
  - Data Security and privacy
  - Connectivity
  - Interoperability
  - Temperature

6

Vertical application domains

- Fashion
- Communication
- Lifestyle computing
- Sport/Fitness
- Wellness
- Medical and active assisted living (AAL)
- Security/Safety
- Automotive
- Wearables @ work

7

Next steps

- Liaison to TC 124 informing of the publication of TR 63071 and liaison representative
- Request that CTA have direct liaison with TC100
- Further study user comfort aspects of smart textiles and wearables
  - WD prepare for 8 weeks review (7 July 2017)
  - Allocate Stage 0 project on user comfort and evaluation of smart textiles and wearables to TA 16 (Plenary September 2017)
  - Continue to collect use cases on wearable systems and equipment
- Consolidate ongoing activities related to wearables to TA 16 after scope is revised (Plenary September 2017)
  - Assign IEC TR 63071 Power supplying scheme for wearable systems and equipment to TA 16

8