|  |  |
| --- | --- |
| **ITU – Telecommunications Standardization Sector**  STUDY GROUP 16 Question 6  **Video Coding Experts Group (VCEG)**  73th Meeting: 16-20 October 2023, Hannover, GER | Document VCEG-BT03 |

|  |  |  |  |
| --- | --- | --- | --- |
| Question: | Q.6/SG16 (VCEG) | | |
| Source: | **Thomas Wiegand (Fraunhofer HHI)** | Tel:  Email: | [thomas.wiegand @hhi.fraunhofer.de](mailto:thomas.wiegand@hhi.fraunhofer.de) |
| Title: | **Report of AHG on coding of medical and general waveform data** | | |
| Purpose: | AHG report | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Introduction**

The mandates of the AHG are:

* Perform gap analysis
* Study requirements
* Collect example signal data for experimentation
* Produce a draft A.1 justification for development of a Recommendation on the subject
* Communicate with DICOM on the above goals

1. **Activities**

The VCEG email reflector was used for communication related to the AHG.

Some VCEG experts have participated in the meetings of the DICOM WG-32 group as guest members. The VCEG document about a draft for a potential Call for Proposals for the compression of biomedical waveform data was discussed at the DICOM WG-32 meeting on August 17th. Moreover, at the DICOM WG-32 meeting on September 21, DICOM experts reported on initial studies on the impact of artificially added signal noise on medical diagnoses. It was suggested that the protocol developed with these studies can be used for a potential verification testing of technologies for the compression of biomedical waveform data developed by VCEG.

A proposed updated version of the draft Call for Proposals has been submitted as an input document to VCEG.

An FTP server has been set up by Fraunhofer HHI. At this server, all the potential test data that appear in the draft Call for Proposals are hosted. Moreover, following the suggestion of VCEG experts to provide more test data, the PTB-XL-100-HZ dataset which consist of 21799 ECG-signals, each having 12 channels at 100 Hz, has been uploaded to the FTP server. The FTP server was announced on the VCEG email reflector.

# Recommendations

The AHG recommends

* To study existing lossy audio codecs with respect to their suitability for compression of medical and general waveform data
* To target the issuing of a Call for Proposals on the compression of biomedical waveform data by VCEG at the VCEG meeting in January
* To communicate with DICOM on the above goals

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_