

**ISO/IEC JTC 1/SC 29/WG 11**

**Coding of moving pictures and audio**

**Convenorship: UNI (Italy)**

**ISO/IEC JTC 1/SC 29/WG 11 N18750**

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**Committee URL: mpeg.chiariglione.org**

**INTERNATIONAL ORGANISATION FOR STANDARDISATION**

**ORGANISATION INTERNATIONALE DE NORMALISATION**

**ISO/IEC JTC 1/SC 29/WG 11**

**CODING OF MOVING PICTURES AND AUDIO**

**ISO/IEC JTC 1/SC 29/WG 11 N18750**

**October 2019, Geneva, CH**

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| **Source:** | **Convenor** |
| **Title:** | **AHGs Established at 128th Meeting** |

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| **Name** | **MPEG & 5G** |
| **Mandates** | 1. Finalize the study of 5G use cases requirements and specifications that could be relevant to MPEG work.2. To identify potential new MPEG activities that can help the industry deploy applications, including media services, over 5G.3. To provide initial requirements for the identified new MPEG activities. |
| **Chairmen** | Igor.curcio, igor.curcio@nokia.comPer Fröjdh, per.frojdh@ericsson.comEmmanuel Thomas, emmanuel.thomas@tno.nl |
| **Duration** | Until MPEG 129 |
| **Reflector(s)** | mpeg-and-5g@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-and-5g |
|  |  |  |  |
| **Meeting** | Saturday before MPEG 129 at 14:00-18:00 | Room Size | 30 |
| Conference call in the week of 2 Dec. Details to be provided later. |  |

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| **Name** | **AHG on MPEG-21Contracts to Smart Contracts** |
| **Mandates** | 1.Solicit further industry participation and contributions in the area of smart contracts (e.g., use cases & requirements)2.Identify / create tools for converting MPEG IPR Ontology based contracts to smart contracts (e.g., Michelson, Solidity, Move)3.Explore the use of MPEG IPR Ontologies as smart contracts in IMAF (ISO/IEC23000-12) & possibly CMAF (ISO/IEC23000-19) |
| **Chairmen** | Panos Kudumakis (QMUL), Xin Wang(MediaTek) |
| **Duration** | Until next meeting |
| **Reflector(s)** | smart-contracts@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/smart-contracts |
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| **Meeting** | None | Room Size | 10 |
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| **Name** | **AHG on Omnidirectional MediA Format (OMAF)** |
| **Mandates** | 1) Study the output documents of OMAF 2nd edition, and MPEG-I Parts 6 and 7 and solicit technical contributions for improvements per MPEG-I phase 1b requirements2) Study the technologies under consideration and solicit contributions3) Study OMAFv1 reference software and conformance and solicit contributions on missing parts4) Study relationship between MIV and OMAF5) Collaborate with relevant SDOs, e.g. VRIF, 3GPP SA4 |
| **Chairmen** | Sachin Deshpande, Ye-Kui Wang, Youngkwon Lim |
| **Duration** | Until the 129th MPEG Meeting |
| **Reflector(s)** | gen-sys@lists.aau.at |
| **Subscribe** | http://lists.aau.at/mailman/listinfo/gen-sys |
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| **Meeting** | Sunday 2 PM to 9 PM on 12 January 2020 | Room Size | 40 |
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| **Name** | **AHG on MPEG-5 Essential Video Coding** |
| **Mandates** | 1. Finalize the text for DIS ballot of MPEG-5 EVC (ISO/IEC 23094-1) 2. Finalize the text for Test Model 4 of EVC (ETM 4.0)3. Coordinate development of the ETM 4.0 software and its distribution 4. Discuss Verification Testing process for EVC 5. Study the requirements for EVC conformance testing6. Prepare an initial Working Draft (WD1) of a conformance specification7. Produce an initial list of conformance bitstreams 8. Discuss input documents to MPEG 129 relating to EVC |
| **Chairmen** | Ken McCann |
| **Duration** | Until 129th MPEG meeting |
| **Reflector(s)** | mpeg-5@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-5 |
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| **Meeting** | 09:00-13:00 Sunday before MPEG | Room Size | 40 |
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| **Name** | **AHG on Low Complexity Enhancement Video Coding** |
| **Mandates** | 1. Finalize the Committee Draft text and Test Model v3 of MPEG-5 LCEVC (ISO/IEC 23094-2)2. Coordinate development of the LTM 3.0 software and its distribution3. Facilitate provision of validation results for LTM 3.0 4. Conduct core experiments for future improvement of LCEVC5. Prepare verification test 6. Discuss input documents to MPEG 129 relating to LCEVC |
| **Chairmen** | Walt Husak, Simone Ferrara |
| **Duration** | Until next MPEG meeting |
| **Reflector(s)** | vcexp@lists.aau.at |
| **Subscribe** | To subscribe, send e-mail to https://lists.aau.at/mailman/listinfo/vcexp |
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| **Meeting** | Sunday before next MPEG meeting | Room Size | 30 |
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| **Name** | **AHG on Compression of Neural Networks for Multimedia Content Description and Analysis** |
| **Mandates** | 1. Collect more diverse types of models and test data for further use cases, working towards a CfP for incremental network representation2. Perform the CEs and analyse the results3. Improve the working draft and test model4. Continue analyzing the state of the art in NN compression and exchange formats 5. Continue interaction with SC42, FG ML5G, NNEF, ONNX and the AI/ML community |
| **Chairmen** | Werner Bailer (werner.bailer@joanneum.at)Sungmoon Chun (smchun@insignal.co.kr)Wei Wang (rickweiwang@tencent.com) |
| **Duration** | UNTIL MPEG129 |
| **Reflector(s)** | mpeg-nnr@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-nnr |
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| **Meeting** | Saturday (14:00-18.00) and Sunday (9.00-18.00) prior to 129th meeting | Room Size | 50 |
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| **Name** | **AHG on Compact Descriptors for Video Analysis (CDVA)** |
| **Mandates** | 1. Prepare DoC of DIS ballot and FDIS spec. 2. Maintain and improve the conformance data set and reference software.2. Promote CDVA to the industry. |
| **Chairmen** | Werner Bailer, Lingyu Duan |
| **Duration** | until 129th meeting |
| **Reflector(s)** | cdvs-tnt@listserv.uni-hannover.de |
| **Subscribe** | subscribe or unsubscribe, send email to listserv@listserv.uni-hannover.de with message subscribe cdvs-tnt |
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| **Meeting** | no meeting planned | Room Size |  |
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| **Name** | **AHG on MPEG-I Visual** |
| **Mandates** | 1. Prepare working draft for immersive video2. Update test model and reference software for immersive video3. Define CTC for immersive video4. Carry on core experiments of immersive video5. Call for test materials for MPEG-I Visual6. Carry out exploration experiments on 6DoF7. Define common test conditions and carry out exploration experiments on dense light fields video |
| **Chairmen** | Lu Yu (chair), Joel Jung, Bart Kroon, Jill Boyce, Mehrdad Teratani (co-chairs) |
| **Duration** | Until next MPEG meeting |
| **Reflector(s)** | mpeg-i-visual@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-i-visualV |
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| **Meeting** | Call on Oct. 30 and Nov. 27 | Room Size |  |
| Saturday (9:00-18:00) and Sunday (9:00-18:00) before next MPEG meeting | 50 |

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| **Name** | **AHG on Network-Based Media Processing** |
| **Mandates** | 1. Study the potential improvement of DIS of NBMP and solicit technical contributions to improve it.2. Study the workplan to develop the reference S/W. 3. Study the relationship with existing WG 11 standard.4. Study network based support of MPEG-I use cases.5. Develop the plan for collaboration with other relevant SDOs, e.g., 3GPP SA4, ATSC. |
| **Chairmen** | Kyungmo Park (SK Telecom) and Imed Bouazizi (Qualcomm) |
| **Duration** | Until the next MPEG meeting |
| **Reflector(s)** | mpeg-nbmp@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-nbmp |
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| **Meeting** | Sunday before MPEG (09:00~18:00) | Room Size | 30 |
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| **Name** | **AHG on Video Decoding Interface** |
| **Mandates** | 1. To disseminate in the JVET group the Consideration on Video Decoding Interface for Immersive Media N18868.2. To facilitate participation of relevant JVET meetings and discussions which happens before the start of MPEG meeting3. Study development of VVC (ISO/IEC 23090-3) and solicit contributions regarding realization of video decoder interface for VVC4. Analyse the capabilities of existing Video Decoding Interfaces (e.g., Khronos OpenMAX) and the features of video coding specification (e.g. HEVC, VVC) against the Requirements for Immersive Media Access and Delivery in N18767 and identify the relevant gaps and necessary features to be worked on.5. Develop the scope, architecture and normative aspects of the MPEG-I standard on “Video Decoding Interface for Immersive Media” based on clause 4.1.1 of N187676. Define the development process of the standard in terms of reference software and tools |
| **Chairmen** | Youngkwon Lim, Emmanuel Thomas, Thomas Stockhammer |
| **Duration** | Until the next MPEG meeting |
| **Reflector(s)** | gen-sys@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/gen-sys |
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| **Meeting** | 11:00 - 13:00 on Sunday before the MPEG meeting (mandate 5 and 6) | Room Size | 40 |
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| **Name** | **AHG on Systems Technologies for PCC** |
| **Mandates** | 1. Solicit contributions regarding TuC.2. Conduct core experiment on partial access of PC data and metrics 3. Study TuC on carriage of G-PCC (ISO/IEC 23090-9) and solicit contributions. 4. Contribute to the development of requirements for video decoding interface |
| **Chairmen** | Youngkwon Lim, Sebastian Schwarz |
| **Duration** | Until the next meeting |
| **Reflector(s)** | mpeg-3dgc@gti.ssr.upm.es and mp4-sys@lists.aau.at (messages should be sent to both reflectors) |
| **Subscribe** |  |
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| **Meeting** |  | Room Size |  |
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| **Name** | **AHG on MPEG-I Architecture and Requirements** |
| **Mandates** | 1. To update the “Overview of Immersive Media Standards” (NXXXXX)2. To refine and verify the architecture(s) for Immersive Services (NXXXXX)3. To further develop the requirements MPEG-I phase 2, including for Scene Description4. To study and propose updates to NXXXXX (Requirements for Immersive Media Access and Delivery);5. To study the existing file format concepts (tracks, groups, etc.) in the context of immersive media storage and identify any missing logical structures for immersive media storage6. To Study and propose updates to the Draft Definition of MPEG-I Phase 2a |
| **Chairmen** | Thomas Stockhammer (tsto@qti.qualcomm.com)Rob Koenen (rob@tiledmedia.com)Mary-Luc Champel (champelmaryluc@xiaomi.com)Jaeyeon Song (jy\_song@samsung.com)Schuyler Quackenbush (srq@audioresearchlabs.com) |
| **Duration** | Until MPEG129 |
| **Reflector(s)** | mpeg-i@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-i |
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| **Meeting** | Sunday before MPEG129, 09:00 - 11:00; can be same room as Video Decoder Interface AHG and Scene Description AHG | Room Size | 50 |
| One call may be organized |  |

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| **Name** | **AHG on Genomic Information Representation** |
| **Mandates** | 1. To disseminate the information and coordinate the activities jointly carried out by ISO/IEC JTC 1/SC 29/WG 11 and ISO TC 276/WG 5 to other ISO TCs, GA4GH and other organizations.2. To discuss and coordinate WG 11 contributions to relevant bioinformatics conferences and events. 3. To collect contributions to the MPEG-G best practice document4. To collect additional test data useful to be used for Part 6 evaluation of the performance of proposed technologies.5. To investigate privacy protection methods for genomic data and understand how MPEG-G can support their implementation.6. To compile common test conditions for the evaluation of MPEG-G performance.7. To review and evaluate the answers to the Call for technology for MPEG-G Part 6 |
| **Chairmen** | M. Golebiewsky (HITS), J. Delgado (UPC), M. Mattavelli (EPFL) |
| **Duration** | Until MPEG 129 |
| **Reflector(s)** | genome\_compression@listes.epfl.ch |
| **Subscribe** | To subscribe, send email to genome\_compression-subscribe@listes.epfl.ch |
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| **Meeting** | Yes | Room Size | 30 |
| Saturday and Sunday before the 129th MPEG meeting. Saturday from 10 a.m. to 22 p.m. Sunday from 9 a.m. to 22 p.m. |  |

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| **Name** | **AHG on Scene Description for MPEG-I** |
| **Mandates** | 1. Complete the analysis of the capabilities of glTF against the requirements for MPEG-I Scene description taking into account MPEG-I Phase 2a (N18797) considerations and the feature list in clause 4 of N18869.2. Develop the scope, architecture and normative aspects of the MPEG-I standard on “Extensions to Scene Descriptions for Support of timed media” based on clause 2, 3 and 4 of N188693. Define the development process of the standard in terms of reference software and tools, and select a common set of tools, e.g. a reference glTF loader/renderer 4. Develop a collaboration model with Khronos in terms of referencing of specifications, information exchange, etc. 5. Harmonize with the MPEG-I audio work and integrate audio into the Scene Description6. Monitor ongoing scene description related work in the industry and in other organizations |
| **Chairmen** | Thomas Stockhammer, Mary-Luc Champel, Ozgur Oyman |
| **Duration** | Until next MPEG meeting |
| **Reflector(s)** | mpeg-i-scene@lists.aau.atFor topics related to integration of media, please CC relevant WG: 3dg, audio, video |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-i-scene |
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| **Meeting** | 2 conference callsTuesday, Nov 19 16-18 cetTuesday, Dec 17 15-17 cetSunday 14:00-18:00 | Room Size | 60 |
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| **Name** | **AhG on MPEG DASH** |
| **Mandates** | 1. Study ad-insertion tools of TuC and finalize a solution for preroll and early ad termination.2. Study technologies under consideration (TuC; N18815) 3. Continue to work on conformance and reference software. |
| **Chairmen** | Iraj Sodagar, Christian Timmerer, Ali C. Begen |
| **Duration** | Until MPEG 129 |
| **Reflector(s)** | dash@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/dash |
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| **Meeting** | None | Room Size |  |
| Conference calls for mandate 1: - Dates: Dec 3rd, Dec 16th  - Time: 7-9 AM PST |  |

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| **Name** | **AHG on MPEG-I Audio and Audio Maintenance** |
| **Mandates** | 1. Execute Workplan on MPEG-I Audio2. Progress Documentation for the MPEG-I Audio Evaluation Platform 3. Study MPEG-I Test and Evaluation Procedures 4. Collect test material that conforms to MPEG-I Audio Encoder Input Format5. Maintain Audio-related conformance data and reference software |
| **Chairmen** | Schuyler Quackenbush (ARL) srq at audioresearchlabs . com |
| **Duration** | Until 129th MPEG Meeting |
| **Reflector(s)** | mpeg-audio-call@audioresearchlabs.com |
| **Subscribe** | • To subscribe or unsubscribe to the list, send email tothe AhG Chair• To post on the mailing list, send email to mpeg-audio-call@ audioresearchlabs.com Note that posting is blocked for non-members |
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| **Meeting** | Web AhG meetings as follows:All meeting times are 1000-1200 EasternDate and Meeting topic: November 4, Workplan, Documentation for the MPEG-I Audio Evaluation PlatformNovember 13, Workplan, Test and Evaluation Procedures November 27, Preparation for Pilot TestF2F meeting prior to 129th MPEG meeting at MPEG meeting venue on MPEG-I topics:• 1000-1800 on Sunday, Test and Evaluation Procedures | Room Size | 40 |
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| **Name** | **AHG on MPEG File Formats** |
| **Mandates** | 1. Support the groups using the file formats (including audio, DASH, CMAF, OMAF, MORE, MIAF, PCC, NBMP et al.)2. Study the Technologies under Consideration and Working Draft documents and propose improvements. Study the defect reports and propose corrigendum text.3. Maintain and update the conformance streams, reference software, white papers and one-pagers, and registration authority, as needed.4. Check the specifications for unregistered MIME types and parameters and start registering them. Audit files as needed for the MP4RA. 5. Study derived visual tracks and propose derivations based on the provisional architecture.6. Study in-band events and round-trip, and the processing model, with DASH event messages, including fragmentation/de-fragmentation of files with event messages, and multiplexing. Study the WD on the DASHEventMessage track format7. Study the use of level assignment and subsegment index, and possible track run sample reordering. |
| **Chairmen** | David Singer (Apple) and Per Fröjdh (Ericsson) |
| **Duration** | Until next meeting |
| **Reflector(s)** | mp4-sys@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mp4-sys |
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| **Meeting** |  | Room Size |  |
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| **Name** | **MPEG Organization and Processes** |
| **Mandates** | 1. Study a solution for delivering Chairs' agendas and schedules in advance of MPEG meetings.2. Study a solution to ensure that delegates are informed in advance about the documents presented in each meeting session.3. Study a solution for how live online meeting minutes can be taken into use at MPEG meetings. |
| **Chairmen** | Igor Curcio, igor.curcio@nokia.comAli C. Begen, ali.begen@networked.media |
| **Duration** | Until MPEG 129 |
| **Reflector(s)** | mpeg-org@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-org |
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| **Meeting** |  | Room Size |  |
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| **Name** | **AHG on Application Formats** |
| **Mandates** | CMAF (Common Media Application Format)1. Study the TuC/DuI and solicit further input and feedback2. Study the Exploration document and provide feedback3. Solicit feedback on WD for additional Media Profiles for CMAF and define a process for adding such media profiles to CMAF. 4. Solicit further contributions on CMAF conformance and test vectors MIAF (Multi-Image Application Format)1. Study conformance and reference software for MIAF2. Solicit text to convert the TuC for MIAF into a Working Draft for AMD 1VIMAF (Visual Identity Application Format)1. To continue developing reference software and conformance |
| **Chairmen** | Krasimir Kolarov; Cyril Concolato |
| **Duration** | until 129th meeting |
| **Reflector(s)** | CMAF - mpeg-cmaf@lists.aau.atMIAF, VIAF - mpeg-maf-dev@lists.aau.at |
| **Subscribe** | CMAF - https://lists.aau.at/mailman/listinfo/mpeg-cmafMIAF, VIAF - https://lists.aau.at/mailman/listinfo/mpeg-maf-dev |
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| **Meeting** |  | Room Size |  |
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| **Name** | **AHG on MPEG Media Transport** |
| **Mandates** | 1. Execute work plan on the conformance 2. Study working drafts and the documents related to MMT under ballot 3. Work on Core Experiment on Hyper Media use cases and requirements for MMT extension4. Keep relevant SDOs informed about MMT (ITU-T SG 16, ARIB, 3GPP, ATSC, etc.)) |
| **Chairmen** | Kyungmo Park (SK Telecom) |
| **Duration** | until the next MPEG meeting |
| **Reflector(s)** | MMT-TNT@listserv.uni-hannover.de |
| **Subscribe** | MMT-TNT-request@listserv.uni-hannover.de |
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| **Meeting** |  | Room Size |  |
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| **Name** | **AHG on Video Coding for Machines** |
| **Mandates** | 1. To collect use cases and related requirements for description and compression of video for machine analysis2. To collect use cases and related requirements for combined human/machine-oriented video representation and compression3. To promote video coding for machine and invite video compression and machine vision experts4. To collect data sets, ground truth and metrics5. To compare performance of analysis using original data vs. analysis using compressed features at different bit rates in the typical cases of object detection6. To collect evidence on the level of achievability of combined human/machine-oriented video representation and compression7. Prepare HEVC coded video and results achieved for the key tasks based upon the coded video8. Prepare feature streams for the call for evidence9. Encourage experts to provide feature stream codecs |
| **Chairmen** | Patrick Dong, Yuan Zhang |
| **Duration** | Until the next MPEG meeting |
| **Reflector(s)** | mpeg-vcm@lists.aau.at |
| **Subscribe** | https://lists.aau.at/mailman/listinfo/mpeg-vcm |
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| **Meeting** | Yes | Room Size | 50 |
| Sunday before MPEG-129, 09:00-18:00 |  |

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| **Name** | **AhG on Point Cloud Compression** |
| **Mandates** | 1. Improve documentation material for V-PCC and G-PCC2.2. Update the TMs (SW and documentation) during the editing period3. Coordinate activities on the V-PCC Reference SW and G-PCC Reference SW4. Update the CTC and provide updated anchor points5.Conduct the PCC experiments for future enhancements6. Solicit contributions on profiles and conformance for V-PCC7. Solicit contributions for making the V-PCC framework more generic8. Solicit contributions on additional PCC use cases9. Solicit contributions on SEI messages for V-PCC and G-PCC10. Coordinate scientific and technical dissemination of PCC11. Coordinate communications of PCC to fairs, exhibitions, workshops and enrich www.mpeg-pcc.org with relevant information about PCC12. Solicit additional data sets for all categories13. Solicit contributions to encapsulate V-PCC and G-PCC in scene graph |
| **Chairmen** | Ralf Schaefer (Chair), Khaled Mammou, Madhukar Budagavi |
| **Duration** | Until 129th MPEG Meeting |
| **Reflector(s)** | mpeg-3dgc AT gti. ssr. upm. es |
| **Subscribe** | To subscribe, send email to https://mx.gti.ssr.upm.es/mailman/listinfo/mpeg-3dgc |
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| **Meeting** | Saturday and Sunday before the MPEG meetingThe Saturday meeting is reserved for V-PCC editing tasks | Room Size | 70 |
|  | 09h00 to 18h00 |

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| **Name** | **AhG on IoMT** |
| **Mandates** | 1. Solicit contributions on IoMT technologies and use cases2. Coordinate the activities related to IoMT Dissemination |
| **Chairmen** | Mihai Mitrea, Sang-Kyun Kim, Sungmoon Chun |
| **Duration** | Until 129th MPEG Meeting |
| **Reflector(s)** | MIoTW@lists.aau.at |
| **Subscribe** | http://lists.uni-klu.ac.at/mailman/options/MIoTW |
|  |  |  |  |
| **Meeting** | Sunday before the MPEG meeting | Room Size |  |
| 14h00 to 18h00 | 20 |