IEEE VR/AR Advisory Board

Industry Connections Activity Initiation Document (ICAID)

Version 3.0, 11 November 2021

IC17-018-03 Approved by the IESS SMDC 13 December 2021

Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- Shaded Text indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE SA) Industry Connections Committee (ICCom) Administrator at the following address: industryconnections@ieee.org.
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

Name: Yu Yuan
Email Address: y.yuan@ieee.org
Employer: 0xSenses Corporation
Affiliation: 0xSenses Corporation

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

2. Participation and Voting Model

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Individual-Based

3. Purpose

3.1 Motivation and Goal

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

Describe the motivation and goal.

Thanks to the rapid growth of the Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality

(MR) industry, IEEE VR/AR Working Group has attracted hundreds of experts from all over the world. As the Working Group is an Entity-Based group, there have been many discussions and strong interests to form an Individual-Based group to encourage and accommodate a wider participation.

IEEE VR/AR Advisory Board, as the long-anticipated Individual-Based group, will provide advice, proposals and other inputs for IEEE VR/AR Working Group.

IEEE VR/AR Advisory Board will also serve as an ideal home for other work items (e.g. white papers, events) while IEEE VR/AR Working Group will focus on standards development.

3.2 Related Work

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

Describe the related work.

This activity is supplemental to the efforts of IEEE VR/AR Working Group which is an Entity-Based group.

3.3 Previously Published Material

Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

List the previously published material, if any.

N/A

3.4 Potential Markets Served

Indicate the main beneficiaries of this work, and what the potential impact might be.

Describe the potential markets.

This work will serve and benefit device manufacturers, content providers, service providers, technology developers, government agencies, end users and other parties that are relevant to Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR).

3.5 How will the activity benefit the IEEE, society, or humanity?

This activity will proactively support IEEE standards development for Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and other relevant technologies. It will help IEEE and IEEE SA establish or enhance leadership in relevant industry sectors. It will also help IEEE and IEEE SA grow membership (individual/corporate) and influence globally.

4. Estimated Timeframe

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

Expected Completion Date: 12/2023

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCom and the responsible committee of the IEEE SA Board of Governors. Should an extension be required, please notify the ICCom Administrator prior to the two-year mark.

5. Proposed Deliverables

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

Specify the deliverables for this IC activity, please be specific.

Documents (e.g., white papers, reports), including but not limited to:

- IEEE VR/AR Technology Outlook

Proposals for standards, including but not limited to:

- New PARs for IEEE VR/AR Working Group and other Working Groups related to VR/AR

Conferences, workshops, challenges and competitions, including but not limited to:

- Metaverse Innovation Challenge

5.1 Open Source Software Development

Indicate whether this IC Activity will develop or incorporate open source software in the deliverables. All contributions of open source software for use in Industry Connections activities shall be accompanied by an approved IEEE Contributor License Agreement (CLA) appropriate for the open source license under which the Work Product will be made available. CLAs, once accepted, are irrevocable. Industry Connections Activities shall comply with the IEEE SA open source policies and procedures and use the IEEE SA open source platform for development of open source software. Information on IEEE SA Open can be found at https://saopen.ieee.org/.

Will the activity develop or incorporate open source software (either normatively or informatively) in the deliverables?: No

6. Funding Requirements

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCom.

Specify funding requirements and sources, if any.

Anticipated expenses include but are not limited to marketing, legal, finance, travel, public events, group meetings and other general and administrative overhead.

Funds are expected to come from external sponsorship, donations and grants.

7. Management and Procedures

7.1 Activity Oversight Committee

Indicate whether an IEEE Standards Committee or Standards Development Working Group has agreed to oversee this activity and its procedures.

Has an IEEE Standards Committee or Standards Development Working Group agreed to oversee this activity?: No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where

Additional IEEE committee information, if any. Please indicate if you are including a letter of support from the IEEE Committee that will oversee this activity.

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

7.2 Activity Management

If no Activity Oversight Committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

Briefly outline activity management structure.

This group will be governed by an executive committee consisting of a chair and other officers as needed. The founding chair will be Yu Yuan.

7.3 Procedures

Indicate what documented procedures will be used to guide the operations of this activity; either (a) modified baseline *Industry Connections Activity Policies and Procedures,* (b) Standards Committee policies and procedures accepted by the IEEE SA Standards

Board, or (c) Working Group policies and procedures accepted by the Working Group's Standards Committee. If option (a) is chosen, then ICCom review and approval of the P&P is required. If option (b) or (c) is chosen, then ICCom approval of the use of the P&P is required.

Specify the policies and procedures document to be used. Attach a copy of chosen policies and procedures.

(a) modified baseline *Industry Connections Activity Policies and Procedures*

8. Participants

8.1 Stakeholder Communities

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

Specify types of entities or groups of individuals.

Device manufacturers, content providers, service providers, technology developers, government agencies, end users and other parties that are relevant to Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR)

8.2 Expected Number of Participants

Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

Number of entities or number of individuals.

100

8.3 Initial Participants

Provide a number of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an entity-based activity:

Entity	Primary Contact	Additional Representatives
Entity Name	Contact Name	Name

Use the following table for an individual-based activity:

Individual	Employer	Affiliation
Yu Yuan	0xSenses Corporation	0xSenses Corporation
Ferhan Ozkan	VR First	VR First; Dreamreality
Steve Mann	University of Toronto	MannLab
Shannon Norrell	HP	HP
Stephen Dukes	Dreamerse Inc.	Dreamerse Inc.
Geoffrey Hamon	howest, Hogeschool West-Vlaanderen	howest, Hogeschool West-Vlaanderen
Diego Liberati	National Research Council of Italy	National Research Council of Italy
Chintan Oza	Tata Communications Ltd.	IEEE Bombay Section
David Goldman	Lumus	Lumus

Fridolin Wild	Oxford Brookes University, UK	IEEE P1589 WG
Jerri Lynn Hogg	Fielding Graduate University	Fielding Graduate University; Self
Bhanwar Lal Bishnoi	Larsen & Toubro Ltd.	Larsen & Toubro Ltd.
Charles Brooks	Brooks Consulting International	Brooks Consulting International
Felix Abad Guerra Pachur	Schneider Electric	Schneider Electric
Marsha Maxwell	Atlanta International School	Atlanta International School
Tom Coughlin	Coughlin Associates, Inc.	Coughlin Associates, Inc.
Renato Opice Blum	Opice Blum, Bruno, Abrusio e Vainzof Advogados Associados	Insper University
William T. Hayes	Iowa Public Television	Iowa Public Television
Steven Aukstakalnis	Matrix Technical Services	Matrix Technical Services
Bradley Hefta- Gaub	High Fidelity	High Fidelity
Jodi Schiller	New Reality Arts	New Reality Arts
Vaneet Aggarwal	Purdue University	Purdue University
John A. Rupkalvis	StereoScope International	StereoScope International
Joaquim Armando Pires Jorge	The University of Lisboa, PORTUGAL	ACM SIGGRAPH; INESC-ID
AJ Burke	KESE LLC	Space Pioneers
Patrick Seeling	Central Michigan University	Central Michigan University
Vangelis Lympouridis	EnosisVR	University Southern California
Touradj Ebrahimi	Swiss Federal Institute of Technology in Lausanne - EPFL	Swiss Federal Institute of Technology in Lausanne - EPFL
Pradeep Balachandran	Self	IEEE P2650 WG
Dirk Behrens	Dresden Microdisplay GmbH	Dresden Microdisplay GmbH
Jonathan Paff	Virtual World Society; RATLab LLC	Virtual World Society; RATLab LLC
Jannick P. Rolland	University of Rochester	University of Rochester
Craig James	CSIRO	CSIRO
Kim Shiho	Yonsei University	Yonsei University
Dhananjay Singh	Hankuk University of Foreign Studies (HUFS), South Korea	Hankuk University of Foreign Studies (HUFS), South Korea
Gregory Maltz	American Academy of Ophthalmology	TelepathEye Inc.
Steven Feiner	Columbia University	Columbia University

8.4 Activity Supporter/Partner

Indicate whether an IEEE committee (including IEEE Societies and Technical Councils) has agreed to participate or support this activity. Support may include, but is not limited to, financial support, marketing support and other ways to help the Activity complete its deliverables.

Has an IEEE Committee agreed to support this activity?: No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where

Please indicate if you are including a letter of support from the IEEE Committee.