IEEE SA - 1872.2 Standard for Autonomous Robotics (AuR) Ontology Working Group

Call and Agenda

Meeting Agenda for October 2, 2020, 1PM-2:30PM UTC

You have been invited to the IEEE SA WG P1872.2 meeting. Join the meeting:
https://join.skype.com/Buruz9jby49e

1. Call to order (Howard)

2. Introduction and rosters (Alberto)

3. Approve today's agenda (Howard)

4. Approve prior meeting's minutes (Alberto; September 4)

5. Essential Patent Claims (Alberto)

6. Status updates/previous action items (Howard)

7. IEEE Copyright Policy (Howard)

8. Technical discussion (Current status of case study and standard's draft Section 8.)

9. Next meeting's topic: nomination of presentation

10. New business/announcements/events/last thoughts

11. Close meeting (Howard)

Rosters

- Y and N state for Yes and No
- ^ means the attendee is a *Voting Member*
- Members highlighted in **green** are eligible to become a *Voting Member*
- Members highlighted in **red** are eligible to lose *Voting Membership*
- Last column contains today's meeting attendees

Attendee Name	Role	Affiliation	Current Voting	Meetings Attended / last two	2-Oct
OBSERVATIONS					
Howard Li	Chair	University of New Brunswick, Canada	Y	2	Y^
Paulo Gonçalves	Co-Chair	IDMEC, Portugal	Y	2	Y^
Veera Ragavan	Co-Chair	Monash University, Australia	N	0	Y
Alberto Olivares Alarcos	Secretary	IRI-CSIC, Spain	Y	2	Y^
Alaa Khamis	Member	General Motors, Canada	Y	0	Y^
Chris Nowak	Member	DST Group, Australia	Y	2	N^
João M.L. Quintas	Member	Pedro Nunes Institute, Portugal	Y	1	Y^
Julia Bermejo	Member	UPM, Spain	Y	2	Y^
Ricardo Sanz	Member	UPM, Spain	Y	1	Y^
Stefano Borgo	Member	ISTC/ CNR, Italy	Y	2	^
Edison Pignaton	Member	UFRGS, Brazil	N	1	Y
Elisa Tosello	Member	UNIPD, Italy	Y	2	Y^
Daniel Beβler	Member	University of Bremen, Germany	N	0	N
Mohammed Diab	Member	UPC, Spain	Y	1	Y^
Marcos E. Bareto	Member	UFBA, Brazil	N	0	N
Joanna I. Olszewska	Member	University of West Scotland, UK	Y	1	Y^
Amelie Gyrard	Member	Knoesis, Wright State University	Y	0	Y^
Hiren Nakawala	Member	CMR Surgical Ltd, Cambridge, UK	Y	1	Y^

Abdelghani Cibani	Member	UPEC, France	N	1	N
Maki Habib	Member	American University in Cairo	Y	2	Y^
Dormant/Inactive					
Sandro R. Fiorini	Co-Chair	IBM, Brazil	N	0	
Eren Erdal Aksoy	Member	Halmstad University / Volvo	N	0	
Carlos Hernández	Member	TU Delft, Netherlands	N	0	
Joel L. Carbonera	Co-Chair	UFRGS, Brazil	N	0	
Edson Prestes	Member	UFRGS, Brazil	N	0	
Bao U. Nguyen	Member	University of Ottawa, Canada	N	1	
Kathryn Bennett	Guest	IEEE-SA	N	0	
Craig Schlenoff	Member	NIST	N	0	
Jaeho Lee	Member	University of Seoul	N	0	
JiSang Hoon	Member	KITECH, Republic of Korea	N	0	
Ki-Yeop Sung	Member	KAR, Republic of Korea	N	0	
Taeyoung Uhm	Member	KIRO, Republic of Korea	N	0	
Sebastian	Guest	IEEE-RAS	N	0	
Christy Bahn	Program Manager	IEEE-SA	N	0	
Signe Redfield	Guest	United States Naval Research Laboratory	N	0	
Ali Akbari	Guest	UPC, Spain	N	0	
Total Attendees					15
Voting Members			15		15
Voting Members Present					13
Quorum					Y

Alaa and Amelie could have lost their voting membership but they attended today's meeting. Stefano was excused for personal reasons.

Approval today's meeting agenda

Motion Proposal : Maki   Seconded by: Paulo   Accepted Agenda: Yes

Approval prior minutes

Minutes were distributed and also made available on our google drive. Thus, members could have read them, but Alberto summarized the minutes to ensure that everyone knew about them.

Motion Proposal: Howard   Seconded by: Paulo   Accepted Minutes: Yes

Call for Essential Patent Claims (Alberto)

The call was raised; no participant raised any concerns or any comments for consideration.

Status updates/previous action items (Howard)

- **[PAUSED]** Future publications
  - Book chapter suggested by Amelie - Architecture
  - Article about Knowledge driven design of robotic applications - Veera
- **[ONGOING]** Alignment with Task Representation group - Terminology harmonization:
  - **[LAST UPDATE]** Environment and Task are done. We might need to discuss Action again at some point because it is not finished yet. Paulo, Ricardo, Maki among others, will represent the view of our group in the discussions of the Task Representation group.
- Focus on case studies to validate the vocabulary
  - **[ONGOING] Mohammed's**
  - Amelie
  - Chris
  - FAiNDER (a company) which would use our standard in a Humanitarian Robotics scenario (landmine detection)
- **[ONGOING]** Work on the draft for the standard
  - Howard has started filling up the draft's template that you can find on our drive. We have split sections, feel free to read it and choose a section to work on. Please, note that the most updated version is the .docx file, not the google doc.
  - Paulo is in charge of maintaining the stable version, should you have any comment or suggestion, please, prepare the text you want to add and present it during any group meeting. The changes will be updated during that meeting and they will be accepted during the next official meeting.
  - **[UPDATE]** During the last months, we discussed the content of sections 1, 2, 3. These three sections are quite stable and only in Section 3 we might introduce

some minor changes during the next months. We are currently working in parallel on three sections: 4 (use of the previous standard), 7 (robotics background), and 8 (specialization guidelines). Paulo is leading the effort about section 4 and he will be presenting the status at some point in the next few weeks. Howard has been working on Section 7 and will update the rest of the group soon. Mohammed prepared an outline for Section 8 and he will briefly present it today.

- IROS Working Group Meeting. Howard's proposal is to have it on Monday October 26 at 9AM-10AM EDT.
- IROS Terminology harmonization meeting on Monday October 26 at 10AM EDT, organized by Craig. Environment, task and action seem to be the most conflicting terms to be discussed among the different standardization efforts.

Copyright Policy (Howard)

Done.

Howard went through some slides about the copyright policy of IEEE. This policy is relatively large so we are not going to include all the material here, but two key points must be kept in mind:

- Anything (verbal or written) we discuss we need to make sure it has not copyright, if it has, we cannot discuss it during the meeting without official permission from the copyright holder.
- Whenever you bring some material to the group and it is discussed along with our meetings, you are granting the copyright of it to the IEEE. Either if you are the holder or your affiliation center is the holder. In the later case, you would need permission from your company or university. Note that when something which has copyright it is discussed during our meetings (sometimes permission would be needed), automatically, the copyright license will be granted to the IEEE. Note that anything developed during our group work, will have a copyright license owned by IEEE once the standard gets published.

Technical discussion

Topic: Case study - Current status

Mohammed will reduce the number of robots to one so that we can present two case studies: one with one robot and another one with two robots. Next week he will update the

implementation of the definitions after the modifications we have done during the last weeks. Then, Mohammed will discuss the implementation with Stefano and their conclusion will be shared as soon as possible. This must be done before we write the axioms of our standard in Section 8 (see below). Mohammed will write an outline about section 9 that could be presented at the end of October or beginning of November.

Topic: Standard's draft - Section 8: Specialization guidelines

Mohammed prepared an outline for section 8, he will work on it offline with the rest of members who showed interest in it: Elisa, Edison, Hiren and Alberto. During today's meeting he presented his proposal and the rest of members were able to provide some feedback. The outline is in a complementary document.

- [**Veera**] Where does CORA fit here?
- [**Hiren**] CORA depends on SUMO so we can put it below. Mohammed agreed.
- [**Veera**] I would use the word 'ontologies' instead of 'concepts'.
- [**Paulo**] For me, the core of this section should be the set of axioms of our standard. Please, share them when they are ready.
- Amelie and Veera showed interest in contributing so they will be added to the sub-group.

During the next weeks the sub-group will work offline, once they have more content to show (e.g. axioms, etc.) they will share it with the rest of the group.

Next meeting's topic: nomination of presentation

- [Next weeks] Standard draft: sections 7 and 4
- [October 26] Howard will prepare some slides with a review about the work we have done during the last year

New business/announcements/events/last thoughts

- Found Patent from Magazino (see here) - Howard working on it
- Next official meeting for October 26 9AM-10AM EDT - We proposed and approved a motion to move our official meeting from the first week of November to October 26, during our working group meeting at virtual IROS.

Close meeting (Howard)

Adjourned 2:30 PM UTC