



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

Call and Agenda

Meeting Agenda for January 8, 2021, 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; December 3)
5. Essential Patent Claims (Alberto)
6. Status updates/previous action items (Howard)
7. IEEE Copyright Policy (Howard)
8. Technical discussion ('Architecture and the behavior-based approach proposed by R. Brooks' by Howard Li)
9. Next meeting's topic: nomination of presentation
10. New business/announcements/events/last thoughts
11. Close meeting (Howard)

Minutes for the Official Meeting on January 8, 2021

Alberto Olivares-Alarcos transcribing



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	8-Jan
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	Y	2	Y^
Alberto Olivares Alarcos	Secretary	IRI-CSIC, Spain	Y	2	Y^
Alaa Khamis	Member	General Motors, Canada	Y	1	Y^
Chris Nowak	Member	DST Group, Australia	Y	1	N^
João M.L. Quintas	Member	Pedro Nunes Institute, Portugal	Y	2	Y^
Julia Bermejo	Member	UPM, Spain	Y	2	Y^
Ricardo Sanz	Member	UPM, Spain	Y	2	Y^
Stefano Borgo	Member	ISTC/ CNR, Italy	Y	1	N^
Edison Pignaton	Member	UFRGS, Brazil	Y	2	N^
Elisa Tosello	Member	UNIPD, Italy	Y	2	Y^
Daniel Beßler	Member	University of Bremen, Germany	N	0	N
Mohammed Diab	Member	UPC, Spain	Y	1	N^
Marcos E. Bareto	Member	UFBA, Brazil	N	0	N
Joanna I. Olszewska	Member	University of West Scotland, UK	Y	2	Y^
Amelie Gyrard	Member	Knoesis, Wright State University	Y	0	Y^
Hiren Nakawala	Member	CMR Surgical Ltd, Cambridge, UK	Y	2	N^

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Abdelghani Cibani	Member	UPEC, France	N	1	Y
Maki Habib	Member	American University in Cairo	Y	0	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	0	
Kathryn Bennett	Guest	IEEE-SA	N	0	
Craig Schlenoff	Member	NIST	N	1	
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					13
Voting Members			17		17
Voting Members Present					12
Quorum					Y

Chris could have lost his voting membership but he attended today's meeting. Veera and Edison became voting members.

Approval today's meeting agenda

Motion Proposal : Paulo

Seconded by: Maki

Accepted Agenda: Yes

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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: João

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)

- Standard's draft. We have especially worked on Section 3. After the discussion on the terminology, Paulo worked on the document and today we will discuss it. We also decided that once Section 3 was polished, Paulo would work on Section 4. During the last weeks we have also focused on Section 7, in which we have made good progress. We have the first draft of the standard, including all the key components. Paulo has put together all the latest changes. The group committee (Howard, Paulo and Alberto) met with Christy to discuss the balloting process and the potential calendar for our group. We will aim to have a final draft by the beginning of March so that we can start the balloting process and finish it before September, then, it will be submitted for approval.
- Paulo finished the draft following what we agreed on after our last meeting: adding the axioms, etc. Some missing parts: discussion about easing the terminology for roboticists (Alaa and Mohammed working offline on it) and we need to write the section about the case studies. The draft can be found in our drive, in the root */standard development/wordtemp_2020/*.
- The IEEE P7007 – Ontological Standard for Ethically Driven Robotics and Automation Systems is finished and the balloting process has started.

Copyright Policy (Howard)

Done.

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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: Architecture and the behavior-based approach proposed by R. Brooks by Howard Li

Howard prepared some slides about the behavior-based approach proposed by R. Brooks. The aim was to refresh the memory of everyone who already knew about it, and to introduce this approach to those who were not familiar with it. Specifically, we would like to align this approach to our ontology (our behavior-based terms), so that robotic experts can understand and use our standard.

After Howard's presentation, we shared some interesting thoughts and comments. Ricardo said that for him this approach hinders the debugging process and it is difficult to be used. Howard said that he used it for robots in the agriculture industry, it had some limitations but the modularity of the approach is really convenient in some cases. Alaa said that this approach works for single robot's behavior, but it is not suitable for multiple robots working together.

[Out of topic]

We talked about possible future groups we might open in the future. Howard and Alaa discussed proposing a new IEEE's standard for autonomous cars. Alaa said that it might be difficult because there are other standards such as the one from SAE.

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Next meeting's topic: nomination of presentation

- [February 5] Christy on 'Balloting process of IEEE-SA standards'.

New business/announcements/events/last thoughts

- Draft ready by the end of March and start the balloting process. In September we will submit the standard for approval.
- Next official meeting - February 5 (which might change depending on Christy's availability)

Close meeting (Howard)

Adjourned 2:30 PM UTC