



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

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### Call and Agenda

Meeting Agenda for January 31, 2019, 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; Nov 8)
5. Essential Patent Claims (Alberto)
6. Status updates/previous action items (Howard)
7. Technical discussion
8. Next meeting's topic: nomination of presentation
9. New business/announcements/events/last thoughts
10. Close meeting (Howard)

## Minutes for the Official Meeting on January 31, 2019

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	31-Jan
<b>OBSERVATIONS</b>					
Howard Li	Chair	University of New Brunswick, Canada	Y	1	Y^
Paulo Gonçalves	Co-Chair	IDMEC, Portugal	Y	1	Y^
Veera Ragavan	Co-Chair	Monash University, Australia	Y	2	N^
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	Y^
João M.L. Quintas	Member	Pedro Nunes Institute, Portugal	N	0	N
Julia Bermejo	Member	UPM, Spain	Y	2	Y^
Ricardo Sanz	Member	UPM, Spain	Y	1	Y^
Stefano Borgo	Member	ISTC/ CNR, Italy	Y	1	Y^
Edison Pignaton	Member	UFRGS, Brazil	Y	0	Y^
Elisa Tosello	Member	UNIPD, Italy	Y	0	Y^
Daniel Beßler	Member	University of Bremen, Germany	-	-	Y
Mohammed Diab	Member	UPC, Spain	Y	1	Y^
Marcos E. Bareto	Member	UFBA, Brazil	N	0	Y
Bao U. Nguyen	Member	University of Ottawa, Canada	N	0	N
Joanna I. Olszewska	Member	University of West Scotland, UK	N	0	Y
Amelie Gyrard	Member	Knoesis, Wright State University	N	0	N
Edson Prestes	Member	UFRGS, Brazil	N	1	N
Sandro R. Fiorini	Co-Chair	IBM, Brazil	N	0	N

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Joel L. Carbonera	Co-Chair	UFRGS, Brazil	N	0	N
Hiren Nakawala	Member	University of Verona, Italy	-	-	
Carlos Hernández	Member	TU Delft, Netherlands	-	-	
Abdelghani Cibani	Member	UPEC, France	-	-	
Eren Erdal Aksoy	Member	Halmstad University / Volvo	-	-	
<b>Dormant/Inactive</b>					
Kathryn Bennett	Guest	IEEE-SA	N	-	
Craig Schlenoff	Member	NIST	N		
Jaeho Lee	Member	University of Seoul	N	1	
JiSang Hoon	Member	KITECH, Republic of Korea	N	1	
Ki-Yeop Sung	Member	KAR, Republic of Korea	N	1	
Taeyoung Uhm	Member	KIRO, Republic of Korea	N	1	
Sebastian	Guest	IEEE-RAS	N	1	
Christy Bahn	Program Manager	IEEE-SA	N	1	
Signe Redfield	Guest	United States Naval Research Laboratory	N		
Ali Akbari	Guest	UPC, Spain	N		
<b>Total Attendees</b>					14
<b>Voting Members</b>			12		12
<b>Voting Members Present</b>					11
<b>Quorum</b>					Y

Edison and Elisa could have lost their voting membership but they attended today's meeting.

### Approval today's meeting agenda

Motion Proposal : Howard

Seconded by: Alberto

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: Alberto

Seconded by: Howard

Accepted Minutes: Yes



## Call for Essential Patent Claims (Alberto)

Done

## Status updates/previous action items (Howard)

- We have been discussing the External viewpoint until now, Stefano has been leading it, we will continue on February 8 with the discussion
- Christy (our project manager) suggested writing our draft in a proper style (with IEEE logo, etc.). We moved to the current style and transfer the previous minutes to this new style
- Special issue for Cloud Robotics (CR) paper in the Journal Robotics and Computer-Integrated Manufacturing, the deadline is March 31. Elisa has done the experiment (what she is presenting today)
- Go back to Internal viewpoint after we have done the first round of discussions about External Viewpoint and we have finished the CR case study

## Technical discussion

**Topic:** Standard outline (Section 9) - Case studies

The Section 9 of the standard is devoted to Case Studies where we should test the ontology. For the time being, we have one case study based on Cloud Robotics which have been developed by Elisa Tosello and will be part of our previous paper about the same topic (which lacked a good case study). Elisa explained the case study following some slides she prepared. The slides are self-explanatory so here we just show the comments after the presentation.

- (Edison) said this case study answers all the comments received in previous revisions of the paper.
- (Elisa) Pointed out that the evaluation of the method could be a problem, because she does not know how to evaluate it. (Edison) said that just one reviewer talked about this, the rest would be happy with just seeing something which works. (Marcos) said that if there is not a time restriction for the mission to be performed, it would be difficult to evaluate the performance, so we can just show that it works. (Elisa) even we have uncertainty in the workspace.

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- (Edison) next step would be to write down the case study and integrate it inside of the paper.
- (Alaa) possible metrics reliability and scalability. (Elisa) having two different case studies shows the scalability and the general character of the approach. (Alaa) does the reasoner reallocates the task if it is not performed? (Elisa) I did not check the finalisation of the task but we can do it. We would need to combine the perception system with the 'monitoring' system.
- (Paulo) How capability is represented? I guess we have a set of actions and this is matched against the pre-conditions. (Elisa) Capabilities and requirements are statically defined as part of the definition of the robot. The robot sends a message to the cloud specifying the capabilities it has and the user sends the requirements, the match is done on the cloud.

**[CONCLUSION]** Elisa will write a draft of the case study explanation and Edison will incorporate it inside of the paper. The rest of the group would provide suggestions afterwards. If Elisa needs help, she would ask for it (Paulo, Marcos, Alaa, Alberto offered themselves for it).

### Next meeting's topic: nomination of presentation

- During next weekly meeting (February 8), Stefano will lead the discussion about the External viewpoint.

### New business/announcements/events/last thoughts

- The Cloud robotics case study will be written and included inside the paper so that we can submit to the RCIM special issue
- The sections of the Standard Outline have been divided and the work has been split into sub-groups of people. For the time being, we have three sub-groups working on the next sections:
  - Section 7.1. Internal Viewpoint (Howard, Paulo and Julia)
  - Section 7.2. External Viewpoint (Chris, Stefano and Veera)
  - Section 9. Case Studies (Alberto, Elisa and Veera)
- The plan is to work in sub-groups and present the work done to the rest of the people of our group during our official meetings. During the next three months, members of each sub-group will present their work.  
**March** - Section 7.2 (External viewpoint) & Section 9 (Case studies)  
**April** - Try to go back to Section 7.1 (Internal viewpoint)

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We will repeat this cycle of presentations, thus, every sub-group will present every three months (of course, this could be changed in the future if our work progress well and the sub-groups have advances to share)

- Next official meeting for March 8

Close meeting (Howard)

Adjourned 2:30 PM UTC