

### International Conference on Unmanned Aircraft Systems ICUAS 2023

June 6-9 Lazarski University, Warsaw, Poland

Feedback Survey

Prepared by: Dr. Nikos Vitzilaios

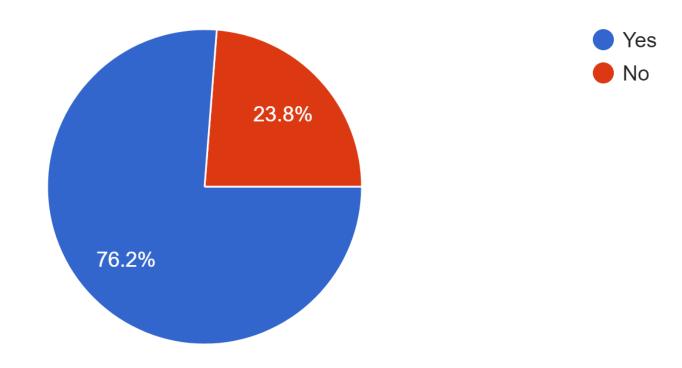
# **Survey Information**

- The 2023, online, survey took place during June 14 30, 2023
- The survey link was emailed to all ICUAS2023 registered attendees
- The survey included 19 questions, in total
- 101 responses were received by the deadline



Is this the first time you attended the ICUAS conference?

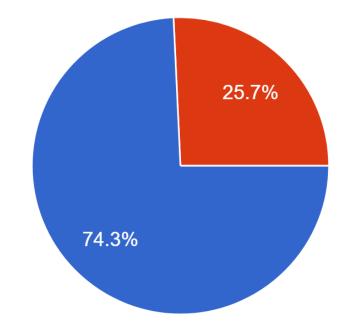
101 responses





### How did you attend ICUAS 2023?

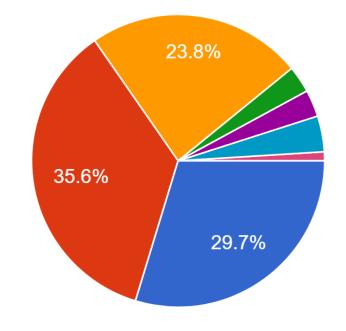
101 responses



In personOnline (virtual)



Job Role 101 responses

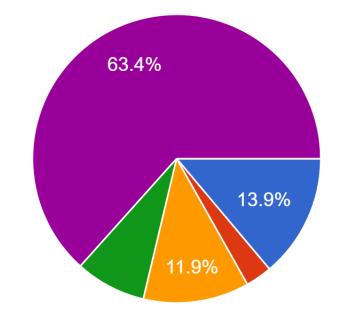


- University Faculty
- University Student
- Other research position
- Government
- Armed Forces
- Industry
- Other



#### **Affiliation Location**

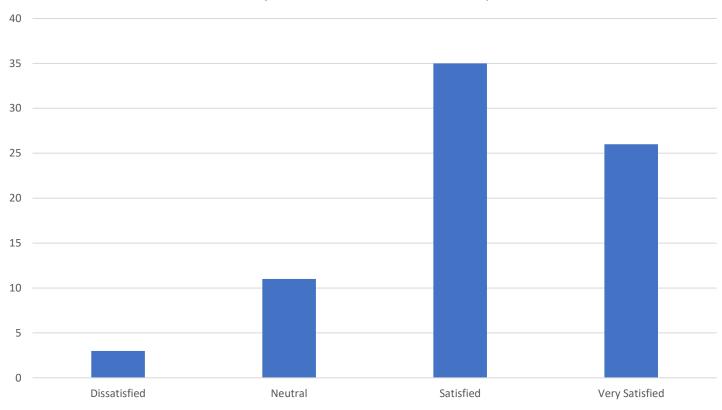
101 responses





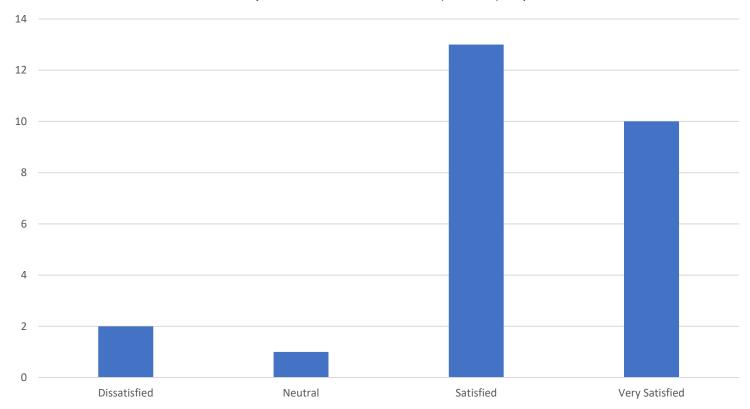


#### Please rate your ICUAS 2023 In Person Experience:



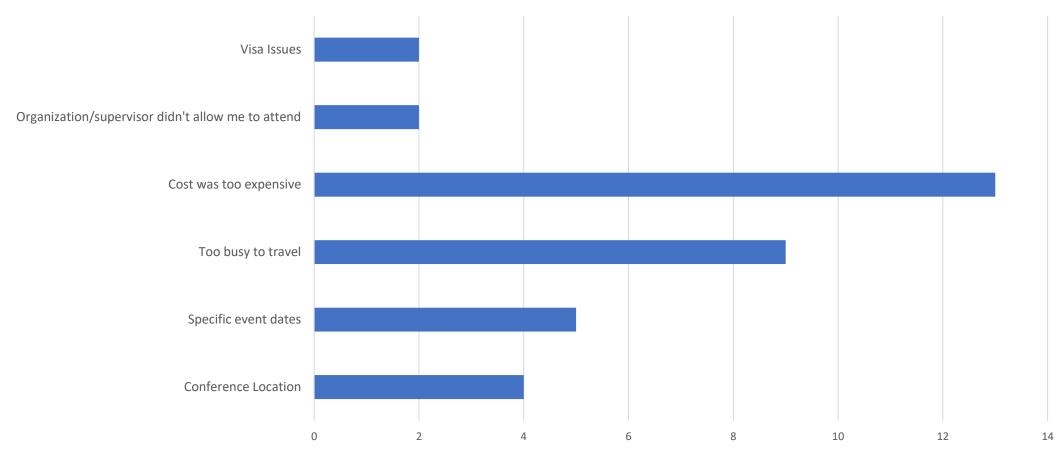


#### Please rate your ICUAS 2023 Online (Virtual) Experience:



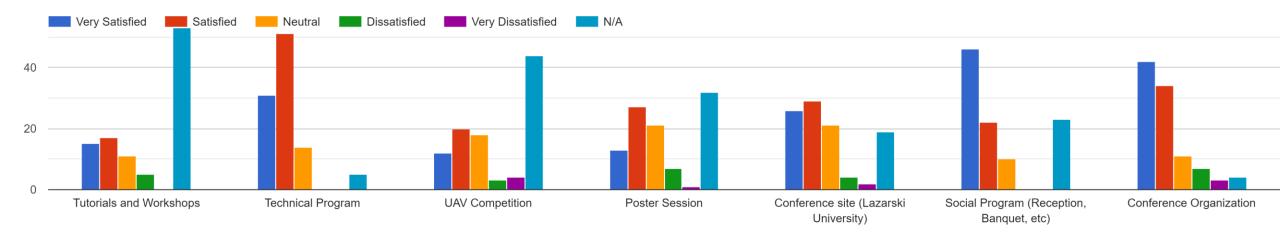


#### For online (virtual) attendees: what is your primary reason for not attending ICUAS 2023 in person?



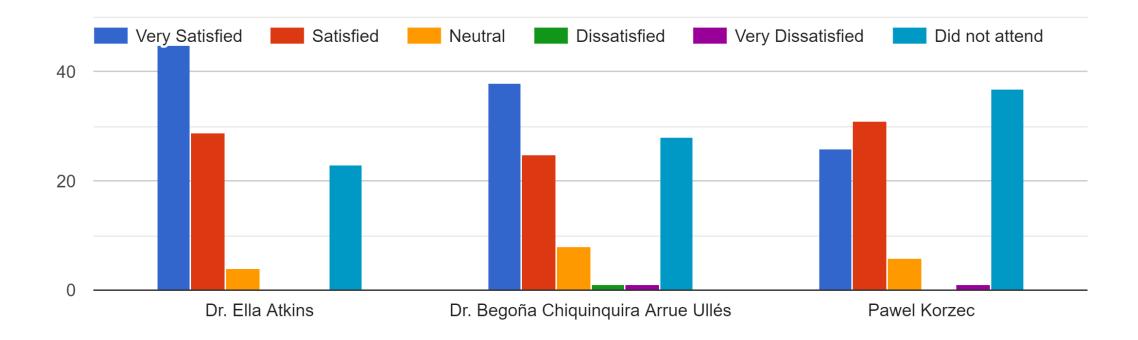


#### Please rate the quality of:



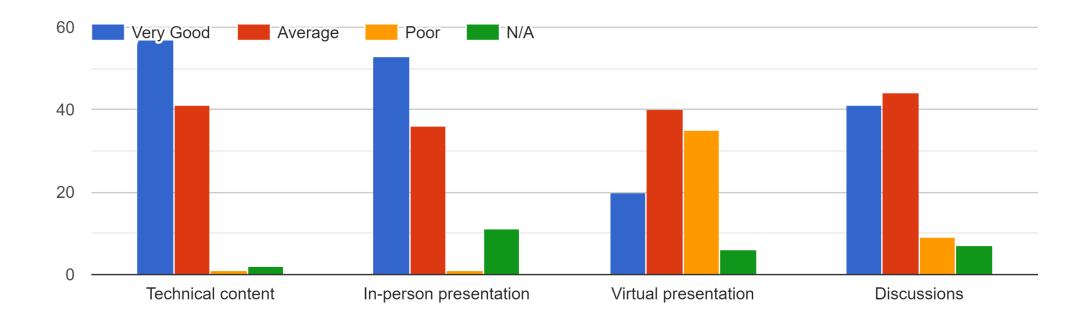


#### Please rate the quality of the plenary sessions:





#### Please rate the quality of the papers:





### Comments – feedback about ICUAS 2023 (1/4)

The hybrid conference was not beneficial - those online did not contribute to discussions. Recorded presentations did not allow for discussions, either. The paper content was ok, but there was a distinct lack of real-world applications based on discussed topics.

Recorded presentations were not good, they were very bad. It is not beneficial for physically present attendees who have made efforts to attend and present, to listen to bad video presentations.

The remote connection platform needs to be improved.

Some online presentations had problems related to connection.

The hybrid conference mode should be removed. There should not be recorded video playback. The UAV Competition location must be close to the conference venue.

The choice of Session Chairs is important. Consider choosing younger, professionally motivated individuals who will do a better job. The quality of some presentations was poor; it seemed that people do not see the importance of a good presentation. Strongly agree about the decision for ICUAS 2024 to be a physical presence only conference.

The paper review process should be more intensive; some low-quality papers were accepted in 2023.

Accept less and better-quality papers (lower accept rate).



### Comments – feedback about ICUAS 2023 (2/4)

#### Very interesting conference.

It really makes a difference for presentations to be live-physical. Consider NOT removing the possibility of online attendance, because there are individuals for whom it is difficult to attend in person. However, enforce live remote presentations, and allow for people to have the possibility to chat directly among themselves in the session, for example in virtual rooms after the presentation.

Virtual presentations were not good. Next year should be in person only, otherwise going to the conference to watch a video probably can make a bad impact in the conference.

The conference was very nice. The poster session should include more poster papers. However, those presented were interesting.

The poster session must be better organized with specific instructions about the poster layout and location. Posters should be presented in a similar area like the other sessions. Future conferences should give the same importance to the poster session as in the other regular sessions.

Timing between the paper acceptance and the event was short.

Session Chairs should know which presentations are virtual and which physical ones. Moreover, Session Chairs should give heads up if some of the presentations are cancelled on short notice.



### Comments – feedback about ICUAS 2023 (3/4)

Some Session Chairs were not familiar with the zoom platform and how to use it. Some Session Chairs did not follow the time schedule, thus making it difficult to change session rooms. Also, breaks between the sessions could be shorter. The most interesting networking happened not there, but in between or after the sessions of the day. Note that in late sessions the session chairs needed to catch an earlier flight, which gave a bad feeling on Friday afternoon. All participants in the room reacted very disappointed.

Conference preparation should be ready before conference participants arrive to attend Workshops/Tutorials in the first morning, NOT later.

Tutorial was presented 100% virtually, although it was offered as a face-to-face event. Thus little knowledge could be transferred

All was fantastic.

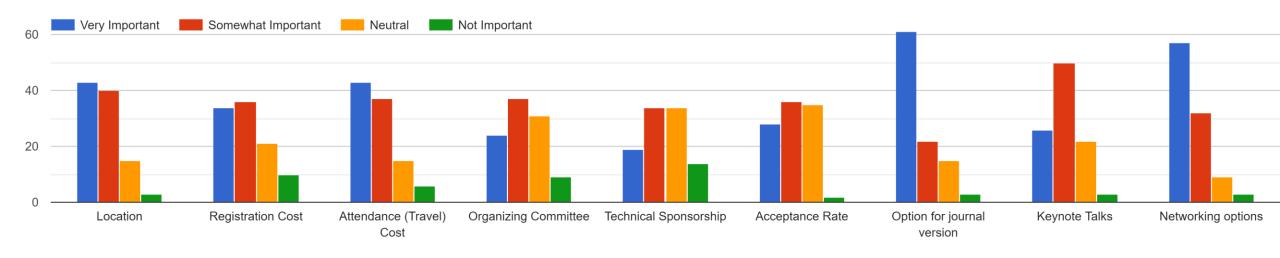
The registration payment issues were the only negative point.

Welcome bags were not available for all the participants The staff of the Regents Hotel did not acknowledge at all the reception organization of the Tuesday, not knowing information as timelines and location in the hotel. Different hotel/conference site locations was inconvenient. The last day they removed the tent hosting launches. The university bar was too small for all the participants, some of them had their launch within classrooms. The last session of the conference was without any chair and one of the speaker was asked to chair the conference without a previous notice.

All times we (authors) were well informed about the conference by Kimon Valavanis. Excellent.

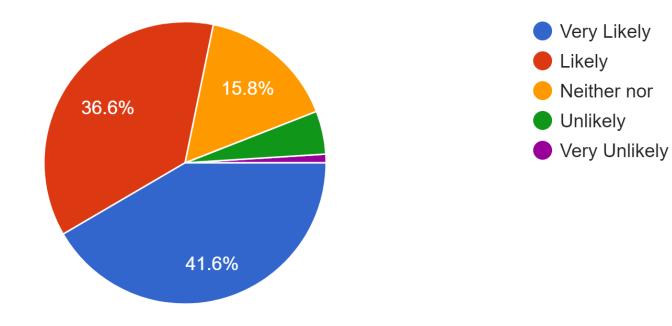


#### How important are the following in your decision to attend ICUAS?





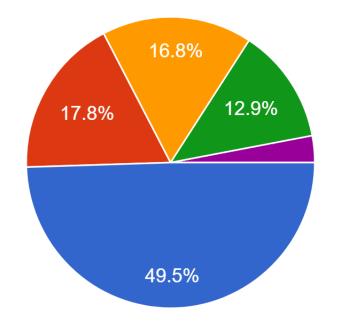
# How likely are you to attend ICUAS 2024 in Chania, Crete, Greece? 101 responses





Would you agree with ICUAS 2024 being organized as an in-person event only (no virtual presentation/attendance option)?

101 responses







### What workshop topics would you like to see next year? (1/3)

- Autonomy
- Commercial use of UAV systems
- Learning from real world trials
- Sensing and localization
- More regulatory, law, rulemaking, industry standards
- Fault detection methods
- Aerial manipulation, MPC and deep learning for UAVs
- AI on board UAVs
- Advanced Air Mobility, both technology and operation
- Swarm UAVs and FANETs
- Detect and avoid systems, deep learning for UAVs
- Hands on training in collaborative control (on any virtual machine, like Gazebo/ROS)
- Regulations



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### What workshop topics would you like to see next year? (2/3)

- Perception (sensors, communication in sensor networks, cooperation in environment understanding)
- Al-based Flight Dynamics and Control
- Aircraft flight control, model-based control and extraplanetary exploration
- BIOMIMETISM / Swarm of UAV / Deep Learning control for UAV
- Control Algorithms for UAV
- Communications aware UAVs and human interaction.
- Aerial manipulation, Ethics in UAVs
- Multi-robot systems applications
- Integration of drones in airspace
- Machine learning methods for UAVs
- SLAM, Localization topics
- Fault-Tolerant Control and one on Visual Servoing
- Agricultural UAVs, last-mile delivery



### What workshop topics would you like to see next year? (3/3)

- Using Robot Operating System (ROS) with Flight Controllers
- Data-Driven Control
- Decision making techniques for autonomous vehicles
- UAV military applications
- From simulation to reality UAV control and planning
- U-space/UTM related topics possibly regarding different approaches internationally
- Environment and sustainability
- I'd like to see a workshop on the aerial manipulation
- UAV control and perception
- Al-enabled UAV development techniques
- Drones in interaction with the environment
- Human-Machine interactions in unmanned systems
- Urban air mobility
- Alternative drone propulsion systems
- Simulators and tool to execute experiments



### Recommend keynote / plenary speakers

M. Cummings

David Guerin, James Scanlan

Theodore Rappaport

EASA, ICAO, JARUS, ASD-STAN, EUROCAE

Antonio Franchi, Matko Orsag, Martin Saska, Davide Scaramuzza, Anibal Ollero

Dr Benjamyn I. Scott

Kostas Alexis, Hugh H.T. Liu, Mirko Kovac, Antonios Tsourdos

Mark Drela

Dr. Metin U. Salamca and Dr. Sinan Azcan

Pr. Guiatni Mohamed

Erdal Kayacan

Marco Tognon for the topic of current research in aerial manipulation and physical interaction.

Steve Brunton

Sabine Hauert, Arthur Richards, Tom Richardson

Prof. You-Min Zhang (Concordia University, Canada)

Dr. Utku Kale, or Prof. Hikmet Karakoc, or Prof. Jozsef Rohacs



### Other Comments to Improve ICUAS (1/2)

Sessions should be organized closer together. Better technical preparation is required: activation of used software, application language, computer mice, laser pointers

The gala dinner could have some dance show, like the lunch on Wednesday. Also, the announcements of best paper awards, etc..., could be done between the start and the main meal, or the main meal and the desert, instead of everything in the beginning

It would be great to have the conference in the USA once every four years

Please consider and pay attention to posters sessions more posters for more exchange

More networking activities. Provide boards for posters.

I would strongly encourage to have more stuff for young professionals - maybe a PhD workshop, PhD night etc. It will be for future PhDs to share ideas and so on. Especially for students who does not have a paper yet. Maybe there should a session where each PhD presents his/hers research area, and then the more experienced audience would give feedback or more ideas how exactly should he or she proceed.

In my opinion, conference in Poland was okay. The biggest drawback is that the conference was in three places. There is should be only one place.

Europe as conference destination sounds good to me. However, there should be some South America or Asia destinations as well to bring more people from that side.

Thank you very much for the organization!

Partial travel support for Students will increase chances of in person participation in conference.



### Other Comments to Improve ICUAS (2/2)

Maybe put the last keynote to Friday afternoon, which you could use to thank people and wish a farewell. That keeps people motivated to join the Friday sessions and those who are leaving without the farewell ceremony in the evening still get the feeling of being appreciated. This year many people told me they would go for a city walk on Friday.

the organization of the conference can be improved with more details in an online guide and less emails.

maybe it would be better to organize all the session on the same roof.

The day after the social dinner was the one with less participants. Maybe the dinner should be organized the last day Please don't send emails too much. They are like spams. Not good for the conference's reputation. Do it in a formal form, at least, if you really need to send emails.

I usually attend the ICUAS conference every year. This year I didn't like the organization. The hotel staff were completely unaware of the conference organization when we asked them for information on the first day. Welcome bags were not available for all participants. Different hotel/conference site locations was inconvenient. The last day they removed the launch tent. The University bar was too small for all participants, some of them had their launch in classrooms. The last session of the conference was without a Session Chair. One of the speakers was asked to chair the conference without a previous notice. This is unacceptable. I'm very disappointed of this year organization, also because it was a pleasure to attend the ICUAS conference in the last years. I hope these issues will not occur in future events.

Congratulations. That was an excellent conference.

Improve the quality of the payment platform.



## **ICUAS 2023 Survey - Conclusions**

- Overall, highly satisfied, successful event
- Most attendees agree to 'remove' the virtual presentation option this was one of the major drawbacks of the conference
- Poster session needs to be better organized
- More and better organized tutorials are desired
- There were concerns for splitting the event in different locations, ideally all events should be in the same location
- Good paper quality, but there is space for improvement
- Greater attention is needed when selecting Session Chairs some concerns were raised
- There is much lower attendance on Friday (last day of the conference). Consider moving events to the last day of the conference to increase participation

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