

REHVA Student Competition

REHVA is happy to organise the REHVA Student Competition in Istanbul the **Annual Meeting***, in May 2024. We welcome **Eurovent Certita Certification**, as the proud sponsor of the competition.



To welcome this new edition of the competition, REHVA wished to reminisce with its past winners on their experience. Three of our past winners have agreed to answer insightful questions on their participation in the REHVA Student Competition, sharing anecdotes and useful tips for future participants!

Iñigo Martin Melero, **Rob Vervoort**, and **Kristian Martin** have agreed to take a ride down memory lane. We asked them a few questions summarizing their path from their enrolment in the competition to their win.

* rehva.eu/events/details/rehva-annual-meeting-2024

Iñigo Martin Melero participated in the competition in 2022 in Rotterdam. He is currently working at the European Organisation for Nuclear Research (CERN), one of the most prestigious and respected scientific laboratories in the world. "I'm working as part of the Engineering department, Cooling, and Ventilation group, where I'm undergoing CFD simulations of different systems at CERN and I'm involved in the Future Circular Collider (FCC) feasibility study."



Why and how did you decide to do your thesis on this topic?

– In my case, I took a course at the university related to HVAC devices and found the topic quite fascinating and deeply related to my bachelor's in mechanical engineering. In addition, I wished to learn Computational Fluid Dynamics (CFD) techniques, so I contacted professors at my university (Universidad Miguel Hernandez de Elche) and came across the project of optimization and CFD modelling of the evaporative pre-cooling of the condenser inlet air.

Why did you decide to take part in the National Competition?

– I took part in the National Competition thanks to my Degree Thesis tutors, Manuel Lucas Miralles and Javier Ruiz Ramírez, that informed me of the opportunity that was organized by ATECYR, the Spanish member of REHVA.

What do you think made your thesis the winning one?

– I believe my thesis was the winning one because it was very innovative, it had a strong technical and scientific component (as it was published in journals). I delivered it well and confidently to the jury during the European and Worldwide rounds at CLIMA 2022, in Rotterdam.

How did participating in the REHVA Student Competition make you grow as a young professional?

– I would say that the REHVA Student Competition consolidated me as a young working professional in the HVAC field, related to technology and sustainability. It was a great event to network with other students interested in HVAC too, exchanging opinions and sharing our fields of research and expertise.

Would you like to say a few words about your experience both at the REHVA Student Competition and the HVAC World Student Competition?

– I had loads of fun at CLIMA 2022, in general. To be honest, I could never have imagined that I was going to be the winner of the European round. When I was selected as the winner, I was surprised and anxious at the same time, as I had to start preparing myself for the Worldwide round.

(...)

Do you have any tips for future participants?

– I would strongly encourage anyone to apply for their national rounds, as the experience of participating in the European round and getting to attend an international conference is very enriching. My only tip would be to practice and prepare well the presentation, as sometimes gestures and non-verbal communication counts more than the content itself. ■

Rob Vervoort, won the Competition in 2017 in London. He is still working on the finalization of his PhD work at TU/e and besides he is working for ENS Clean Air (both project engineering and research & development).



Why and how did you decide to do your thesis on this topic?

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– In my first Mater's project I (numerically) studied the effects of vegetative roofs on sound levels in the vicinity of buildings. Prior to my graduation project, I was involved in a project studying the performance of wind tunnel screens, by means of computational fluid dynamics (CFD) simulations, under the supervision of prof. dr. ir. Bert Blocken and dr. ir. Twan van Hooff. During the course of my pre-graduation projection, Bert notified me that there was a company (ENS Clean Air) that contacted him to inquire if Bert's research group was able to conduct certain research tasks. Bert gave me the opportunity to take on this project, which I eventually did. The end result: my graduation thesis titled "Lungs of the city of Eindhoven", in which I studied the effect of large-scale application of air purification, inside semi-enclosed buildings, on particulate matter (PM) concentrations in an urban environment.

Why did you decide to take part in the National Competition?

– My supervisors suggested me to do so. Actually, back then I had never heard of the TVVL platform (Dutch Society for Building Services and Technology). I'm glad though my supervisors did. TVVL is quite actively communicating on the possibility to enrol for the national competition through various channels; once they became part of my network these messages never escaped my attention.

Once my supervisors informed me on this possibility, I immediately prepared a submission. I really liked the fact that there was an opportunity to present our work to a broader audience (usually mainly academicians), and to take a small leap into the unknown. In addition, from a (future) career perspective it can be beneficial to present yourself outside of your existing network.

What do you think made your thesis the winning one?

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– At that moment, the study was still rather unique (i.e. very large but detailed computational domain and an innovative approach striving towards improved urban air quality). Furthermore, I think the jury considered that the work is of significance since the societal impact of PM exposure is substantial. There is ample scientific evidence that exposure to PM can result in increased mortality and morbidity, this awareness is growing

How did participating in the REHVA Student Competition make you grow as a young professional?

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– I think the REHVA Student Competition primarily contributed towards gaining confidence in presenting myself out of my comfort zone. Over the last several years I've had the opportunity to do so in many different - for me unfamiliar – settings. As a result, I feel quite comfortable whenever I have to talk about my work.

Would you like to say a few words about your experience both at the REHVA Student Competition and the HVAC World Student Competition?

In my feeling, everything went by rather fast. The day before the REHVA Student Competition I took a plane from Rotterdam the Hague airport to London City. It was my first visit to London, luckily, I had some time to take a short stroll through the city upon my arrival. The student competition took place the

next morning. Before I knew the presentation session was over. The minutes just before announcement of the winner I noticed I was very tense. Arash Rasooli (winner REHVA World Competition 2016), who helped me prepare for this event, told me I did well, so it crossed my mind that I could end up in the top three. When the final verdict came in, I felt very fortunate that I was able to 'crown' months of dedicated work with this achievement. After announcing the results, and subsequent presentation in the REHVA Annual Meeting, there was only time for a quick drink with Arash before leaving for the airport. I must admit it felt really great to carry the trophy with me on the airplane. By midnight I was home to celebrate with my family. All in all, the experience as a whole was really nice.

How would you say the Competition has influenced the way you work?

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– My supervisors at TU/e certainly 'trained' me in paying attention to details and to strive towards high quality research. I try to be aware of all the limitations, nuances etcetera, and try to describe everything in a very complete and factual (scientific) manner. This is something I also tried to warrant when participating in the student competition. Probably I will take this with me for the rest of my life. I can imagine that sometimes my colleagues will 'curse' me for the fact that sometimes my input comes with a lot of 'disclaimers'.

Do you have any tips for future participants?

– First of all, do not hesitate to enrol for the national competition. The threshold to register for the national competition is not high at all, at least that is what I experienced. Secondly, be confident about the work you are presenting. You have probably spent quite some time working on your thesis, show that you 'own it'. Of course, at such a point in your career, you cannot comprehend all the details related to your research (time constraints can force you to wrap things up), that is perfectly fine, at least try to – to the best of your ability – know what you're not knowing or uncertain about (every study has its limitations)! If you're well prepared, there is no need to feel tense about your presentations. In my case, I also received very helpful tips from Arash to come in well-prepared. Last but not least, do not forget to enjoy the moment, see it as an opportunity to present yourself and your work (rather than a competition). ■

Kristian Martin, won the Competition in 2018 in Brussels. He is now working as a Project Development Manager within energy efficiency improvement of properties at REHVA Supporter Granlund.



(...)

Why did you decide to take part in the National Competition?

– As I can remember I was nominated for it. I thought it sounded like a nice experience and decided to go. My group manager at that time had himself participated in the competition earlier and encouraged me to go.

What do you think made your thesis the winning one?

– Since I had been working full-time with HVAC design after my bachelor's degree, I had much practical understanding and knowledge, that I was able to link to the theoretical side, giving me a clear advantage when writing both the theoretical part of the thesis as when defining and conducting the actual simulation study.

Additionally, I worked very hard with the thesis and made a thorough work.

How did participating in the REHVA Student Competition make you grow as a young professional?

– I would say that it boosted my professional self-esteem much, especially since winning the whole competition.

The competition is a great experience and if wanting to succeed, as with anything, you have to put lots of effort into every part of it (writing an article, making an interesting and visual poster, kicking off a really first-class presentation just on time).

What is your best memory of both the REHVA Student Competition and the HVAC World Student Competition?

– The best Memory of the REHVA competition is from the announcement of the winner. I remember being honestly very surprised when I heard my name. I have not felt such great feelings of pure joy and strong satisfaction before. As been stated, I put down a lot of effort into the thesis and the competition and it was incredibly rewarding to win it!

Regarding the HVAC World Student Competition, the best memory is overall the fact of visiting China for the first time and facing the differences in culture and practice. It was a very interesting week over there.

As for the competition, I did not win, but I came home with a silver medal.

During the competitions, I had the honour of meeting lots of new interesting people which made it a very pleasant time. I will surely remember this experience and these two competitions for the rest of my life. I can strongly recommend students to participate!

(...)

Do you have any tips for future participants?

– Ask for feedback from a colleague/mentor many times during the preparation process regarding all three parts (article, poster, presentation).

Put very much and even more effort into the presentation. Know every single sentence by heart and practice it until it comes fluently in a nice way. This cannot be overstated. Time is limited and the presentation is the key component in the competition.

Do prepare for different kinds of questions from the judges and do prepare good answers. ■

Read full interviews on the [REHVA Knowledge Hub!](#)

