60 Seconds with ... Prof. Davy Pissoort



Davy Pissoort received his PhD degree in electrical engineering from Ghent University, Belgium in 2005. He then worked as an R&D Engineer at Agilent Technologies (now Keysight Technologies) in Ghent, Belgium. Since 2009, he has been a Professor at KU Leuven Bruges Campus, where he is one of the key founders of the Mechatronics Group.

His current research interests include EMI Risk Management as well as safety assurance of interconnected autonomous systems. Davy has also recently joined the SCSC Steering Group.

What first attracted you to working in the field of System Safety?

I was initially drawn to the field of System Safety through my work in electromagnetic compatibility (EMC). While working in EMC, I became involved in various working groups focused on the connection between EMC and functional safety, led by Keith Armstrong. As I delved deeper into the world of functional safety, I found myself increasingly intrigued by its complexities and significance.

Keith also played a pivotal role in guiding my journey when he introduced me to the Safety-Critical Systems Club and, more notably, the Safety-Critical System Symposium. These experiences opened my eyes to a broader community of experts and innovative ideas in the field of System Safety.

My fascination with System Safety was further fuelled by the evolution towards autonomous systems, an area that greatly piqued my interest. The intersection of EMC, functional safety, and the exciting advancements in autonomous technology all came together to solidify my passion for working in the field of System Safety.

What aspect of your career are you most proud of?

Related to System Safety, I'm specifically proud of two things in my career. Firstly, I've secured funding for several EU-funded Marie-Curie Doctoral Networks. Two of these projects (SAS and PETER) focus on making autonomous systems safer and managing the risk of electromagnetic interference. Through these projects, not only has my own research team grown, but we've also nurtured a talented group of PhD researchers across Europe who are working on these important topics.

Secondly, one of my greatest sources of pride is when a PhD student I've mentored successfully graduates. It's amazing to watch them develop and learn over the years, and knowing that I've played a part in their growth is truly fulfilling.

Tell us one interesting unusual fact about yourself!

Sure, here's a fun fact about me: in addition to my Master's and PhD degrees in engineering, I'm also a certified soccer coach for really young kids, specifically those aged 6-7 years old. So, alongside all the technical stuff, I have this official qualification that lets me teach and train little soccer stars in the making!

What advice would you give to yourself age 12?

If I could talk to my 12-year-old self, I'd say, "Believe in yourself more!" Self-confidence will help you achieve amazing things in the future. Don't doubt yourself – you're capable of more than you can imagine.

What future changes would you like to see in the field of System Safety?

I hope people will increasingly look beyond just following the rules and standards. Sometimes, we get too caught up in ticking boxes, especially in my area of EMC. This can be counterproductive when it comes to safety-critical systems.

One exciting direction is how we can use Artificial Intelligence (AI) and Machine Learning (ML) to enhance system safety. It's a complex journey, but we're taking small steps. For instance, one of my PhD students, Laure Buysse, is exploring how we can monitor and analyse all the assumptions in our safety case during operation using AI/ML. The ultimate goal is to use this data to improve safety significantly.

What's your most favourite quote or motto?

"*Be who you needed when you were younger*". Something that I regularly keep in mind when supervising my PhD student**.**

If you could learn to do anything, what would it be?

If I could pick up a new skill, I'd choose to master "double-unders." It's something I've been working on for quite a few years, especially because I'm into CrossFit. Double-unders are a challenging jump rope technique where the rope passes under your feet twice with each jump. It's a skill that requires precision and coordination, and I'd love to conquer it.

If you could be any fictional character, who would you choose?

If I could step into the shoes of any fictional character, I think I'd choose to be Sherlock Holmes. His brilliant mind, deductive reasoning, and knack for solving mysteries have always fascinated me.

Artificial Intelligence - a positive revolution or are we all doomed!?

I believe that AI is primarily a positive evolution. AI has the potential to bring about many beneficial changes in our lives. However, we must handle it with care and responsibility as humans. System Safety plays a crucial role in ensuring AI is safe and trustworthy. Interestingly, AI itself can contribute to improving safety, which makes it a valuable tool for our future. So, it's not a question of being doomed but rather about using AI wisely for our benefit.