

Gloria Yoshkova, a PhD candidate and a member of the CoGDev Lab, shares her experience from this year's postgraduate research (PGR) and early career research (ECR) conference organised by the Doctoral College at the University of Surrey.

The annual conference organised by the Doctoral College at the University of Surrey took place on the 15th of June at the charming Stag Hill Campus in Guildford. This year's conference was themed Making the Invisible Visible (MIV) and it presented an opportunity for postgraduate and early career researchers (PGRs and ECRs) to share their work on important unanswered questions. The objective of MIV was to encourage cross-disciplinary collaborations to tackle research challenges in innovative ways and give voice to those previously unheard. PGRs and ECRs delivered 18 talks and 30 poster presentations on the three topics of this year's event: Sustainable and resilient futures; Digital and technological futures; and Healthy and inclusive futures. The event included keynote speakers, a choice of short skills sessions and numerous rewards for the researchers, presenters and event organisers. Read below to find out more about the university's wide-reaching research, and ground-breaking discoveries.



This year's Doctoral College conference took place on the 15th of June 2023, at the Austin Pearce Building.

On the sunny morning of 15th June 2023, visitors at the annual MIV conference were welcomed by the Doctoral College and Stall Holders representing a range of societies and services provided by the



The Doctoral College and Stall Holders welcomed guests to the annual MIV conference.

Among them were some of the brilliant Researcher Development and Employability Team members, representatives from Surrey Open Research and Research Culture, the Surrey Open Research Society, and Student Enterprise, Innovation and Entrepreneurship. Visitors of the event also had an opportunity to view posters on a wide range of topics across the disciplines of Biosciences and Medicine, Environment and Sustainability, Health Psychology, Veterinary Medicine, and Space Engineering among others. The poster's hall provided an ideal and friendly environment for researchers to meet, share ideas, and draw inspiration from each other. After the warm welcome, visitors and presenters excitedly entered the auditorium to hear more about the research conducted by the PGRs and ECRs at Surrey.

The start of the talks was marked by a welcome speech from the organising Committee and an inspirational talk by Dr Allan Kilner-Johnson, the Interim Dean of the Doctoral College. He reminded the audience of the importance of our research through which we expand the fields of our disciplines and show others what is possible. Dr Kilner-Johnson used an excellent example to demonstrate how things invisible, unseen, and unknown, are often perceived as threatening and

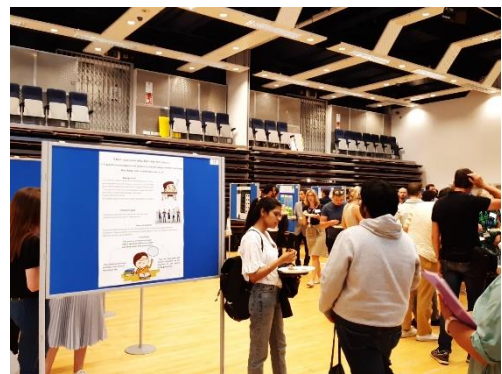
unachievable, and we often do not even try if we believe something is impossible. In 1954, after decades of unsuccessful attempts, no one believed it was possible to run a mile in four minutes until Roger Bannister, at the age of 25, completed a mile run in 3 minutes and 59 seconds. Just two months later, two more runners had broken the “four-minute” barrier, and by 2022, the number of athletes completing a mile run in under four minutes reached 1755. This story taught us that the barrier to achieving something previously thought out of reach is not always in our capabilities, but in what we believe is possible. Dr Kilner-Johnson encouraged us to continue challenging and overcoming barriers, and not succumb to the power of impossible thinking.

After the inspiring speech of our Interim Dean, the floor was given to keynote speakers Dr Tom Roberts and Professor Monique Raats who introduced the Institute for Sustainability. In an illuminating presentation, they discussed the problem of invisibility for environmental decision-making, what a good future looks like, and how the Institute supports researchers to achieve this future for the generations to come. The Institute aims to facilitate cross-faculty and multidisciplinary collaborations to break new ground and produce research that brings about significant change. To achieve this, Dr Roberts explained, we need to produce high-quality research that illuminates invisible environmental issues. Having mentioned research and invisible issues, let us dive into the highlights from the rest of the day.

The morning continued with two sessions of oral presentations where PGRs and ECRs shared research findings and plans on how to make the invisible visible. Some of the topics discussed included the better understanding and relief of Chronic Fatigue Syndrome by Krista Clarke, innovative and sustainable ways of water treatment to tackle arsenic poisoning by Dinesha Watte Vidanelage, and applying new techniques to diagnosing bladder cancer by Rashedul Hoque.

Among the oral presenters was Gloria Yoshkova from the School of Psychology and the Cognition, Genes and Developmental Variability (CoGDev) Lab. Gloria who works under the supervision of Professor Emily Farran, Dr Jo Moss, and Dr Brijesh Dongol, presented and answered questions about her plans to provide the first international guidance on motor development in children with Williams Syndrome (WS). With the support and expertise of her interdisciplinary advisors, Gloria will employ novel techniques, such as motion tracking and machine learning, to analyse the quality of movement in WS and its impact on other areas of development. She also aims to develop a motor milestones app specific to WS, thus bringing much-needed technology to the families of children with this syndrome. Gloria hopes that the combination of these tools and findings will contribute to improved developmental outcomes and quality of life for people with Williams Syndrome.

After a lunch break and another glance at the wonderful posters, visitors of the event had a choice between three sessions of parallel talks, each of which focused on one of the conference themes. In the session on Digital and Technological Futures, Sam Lane spoke about innovative ways to monitor satellites orbiting the Earth and how to effectively prevent collisions between them. In Healthy and Inclusive Futures, Natalie Brown presented fascinating findings on the invisible world of bacteria found in veterinary sinks. Finally, in the session Sustainable and Resilient Futures, James Adams spoke about bacterial disease in poultry and using immune stimulation as an alternative to antibiotics. These are just some examples of the many fascinating and important findings of doctoral researchers at the University of Surrey.



Poster presentations and networking at the MIV conference.

The visitors and presenters also had the chance to participate in one of two short skills sessions. Dr Jo Noble led a session on Data Visualisation where she delivered an insightful talk and engaged the audience in an ardent discussion. Meanwhile, Dr Janet Ramdeo spoke to students and staff about Inclusive Education Practice. The workshops were followed by a closing keynote speech by Gearóid Maguire – a Practice Manager in the Culture, Equity, Diversity and Inclusion team at the Wellcome’s Trust. Wellcome is a global charitable foundation that funds research and focuses on the biggest challenges of our time – climate change, infectious disease and mental health. Dr Maguire spoke about Wellcome’s approach to Making the Invisible Visible and invited researchers at all stages of their careers to explore the rewards and funding opportunities provided by the Trust.



Dr Kilner-Johnson handed out a reward for best oral presentation to Gloria Yoshkova from the CoGDeV lab.

The day ended with closing remarks by Dr Kilner-Johnson and handing out rewards to the amazing organisers of the MIV conference. The winner of this year’s Three Minute Theses competition was also announced. Joy Schmeer from Mechanical Engineering Sciences, will represent the University of Surrey on a national level with her research on tackling poor air quality. Gloria Yoshkova from the CoGDeV lab was also among the prize winners. She received an award for best oral presentation which she proudly added to the achievements of the CoGDeV lab.

Without a doubt, this year’s conference left everyone feeling inspired, enthusiastic, and hopeful about the future. Nearly 50 research projects presented by PGRs and ECRs demonstrated what makes an ideal research culture. Supportive, collaborative and creative research is what expands the scientific field and brings us closer to achieving those previously unimaginable goals. At the CoGDeV lab and the University of Surrey, we continue showing others what is possible while giving voice to those amongst us who are yet to be heard. We hope to see you at next year’s conference where we will share more research adventures and ground-breaking insights.