

FACULTY OF EDUCATION

Edubrief | November/December 2023



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Message from the Dean, Prof. Nadine Petersen: Reflecting on 2023

Dear Colleagues,
As the year draws to a close, I would like to thank faculty staff, associates, and external collaborators for their contributions to the success of the 2023 academic year.

Your commitment to excellence, innovation, and, most importantly, to our students, has been the driving force behind our shared success.

I am profoundly grateful for the collective efforts that have made the Faculty of Education UJ a top performer. The results of the Times Higher Education 2024 World University Rankings by subject have seen Education move up two bands from 251-300 into the 176-200 band in the world to achieve a joint second place in South Africa.

There are many more things to celebrate in the academic sphere – some of which are highlighted in this edition of EduBrief. On the research front, the faculty has submitted more than the targeted number of research output units to the DHET, and we have added new international partners to our research pursuits, with a particular focus on establishing new African partnerships.

In the teaching and learning domain, the faculty has been hugely successful in its continuing efforts to ensure student success and persistence. Several staff have been recognised in various forums for their contribution to educational initiatives in their disciplinary fields and to efforts that directly impact positively on the community and society. There have been numerous media appearances with experts from the faculty commenting on issues of educational importance in the country.

On a lighter note, we are pleased to share the news that the Faculty of Education was announced the winning faculty at the UJ annual staff day celebrations! The judges commented on the spirit of togetherness and cooperation that characterised the faculty's submission – this is something we treasure and hope to build on.

As we approach the end of 2023, let us celebrate the spirit of collaboration and the commitment to education practice that works towards social justice and equity. I am confident that the coming year will bring even more opportunities for growth, learning, and collaboration.

May you all enjoy a safe and much-needed break and return refreshed to tackle the new possibilities in 2024.

Take care,

Nadine Petersen

Virtual reality and learning analytics as critical tools for transforming microteaching practices of pre-service teachers: The LAViR project

Authors: Mafor Penn, Umesh Ramnarain, Christo van der Westhuizen, Koketso Pila, Noluthando Mdlalose, Ayodele Ogegbo

Virtual reality (VR) classrooms are immersive classroom learning environments which offer an interactive and dynamic platform for microteaching. The joint research project of the University of Johannesburg and the Swiss Distance University of Applied Sciences on Learning Analytics for Virtual Reality (LAViR) funded by Unity Social Impact and Meta Immersive Learning focuses on the development of a VR classroom application to improve the microteaching practices of pre-service science teachers. The LAViR application is set to transform pre-service teacher (PST) education in science by providing a platform for PSTs to practice their teaching using microlessons. The VR classroom run by the application combines the power of Learning Analytics (LA) and Virtual Reality (VR) to create a realistic and regulated training environment by simulating a real-world classroom with 3D models for the teaching of concepts in biology, chemistry, and physics.

In addition, the VR classroom application collects rich sources of various data collated in an LA dashboard, which augments the feedback that PSTs usually get both from their teacher educators and their peers. This includes insights into students' engagement, interaction, communication, and movement within the virtual environment. A Spectator application embedded in the VR classroom via cameras gives teacher educators an observational tool for monitoring and evaluating PSTs skills development. "The Spectator", as it is commonly called, plays a critical role in fostering reflective teaching practices after microteaching sessions where teacher educators and PSTs can re-watch and evaluate teacher and learner behaviour in the VR classroom environment. Learning analytics further complement this process by leveraging data to assess teaching effectiveness, identify areas for improvement and personalise instruction based on individual learner needs.

Image 1 below shows the VR classroom layout within the LAViR application through the Spectator's view.

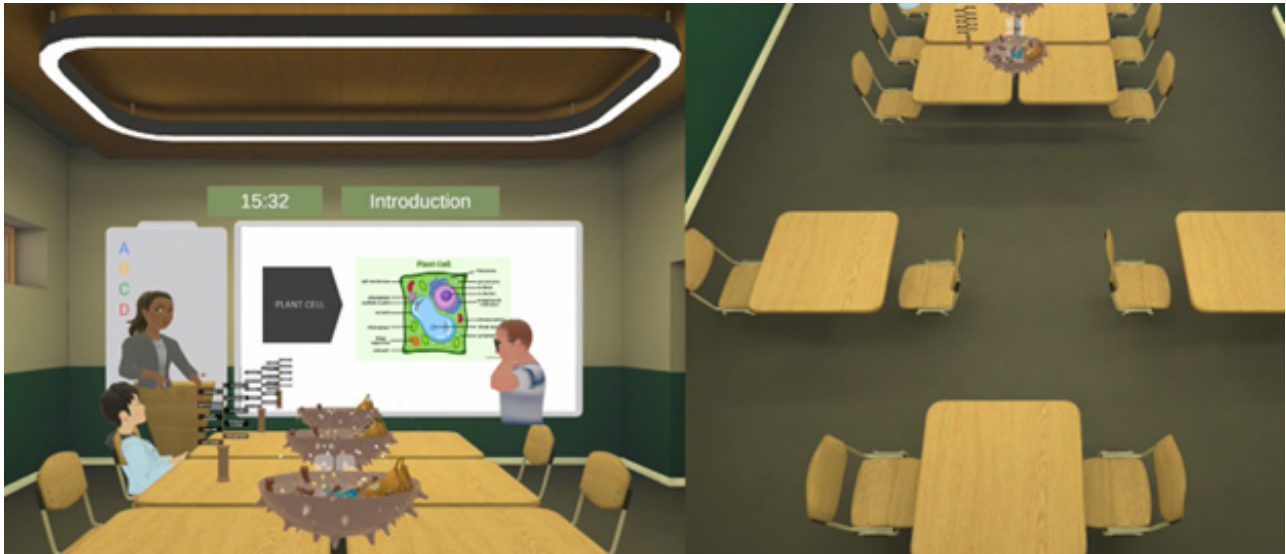


Image 1. Layout of the LAViR application VR classroom through the Spectator's view

As seen in the image layout, a PST assumes the role of a teacher while others assume the role of learners. A slide presentation can be made, and both teachers and learners can be moved around in interactive sessions. 3D models can also be manipulated.

In conclusion, the integration of VR and LA into microteaching practices holds immense potential to

revolutionise teacher training. As we navigate the ever-evolving landscape of education, these technological transformations are poised to shape a new era of effective, data-informed microteaching practices that prepare teachers to meet the diverse and complex needs of 21st-century learners within the 4IR.



The Faculty of Education takes 1st Place at UJ's Staff Day **Author: Dr Sadi Seyama**

In a fantastic show of teamwork and unity, the Faculty of Education secured a victory at UJ Staff Day 2023. Colleagues enthusiastically embraced the Kaapse Klopse theme in their colourful outfits, transcending the symbolism therefore, and demonstrating the expressions of inclusivity. With the creativity and coordination of our

colleagues in Faculty Administration and the Faculty's Transformation Committee, the stall featured detailed décor, an informative pamphlet, delightful traditional treats that explored the historical significance of the theme, Kaapse Klopse. The judges were impressed by the attention to detail, leading the faculty to a well-

deserved triumph. The support and participation of all staff members truly displayed the spirit of Ubuntu. A big thank you to everyone who joined in with enthusiasm! The remarkable spirit of unity that permeated our Staff Day, ultimately lead to our faculty's triumph. The atmosphere of camaraderie and collaboration was truly inspiring, reflecting the dedication and teamwork. The

spirit of unity not only defined our collective efforts but also enhanced the overall experience of Staff Day. The positive energy and collaborative mindset created a vibrant and supportive environment, fostering a sense of community that will undoubtedly have a lasting impact on us as a faculty.

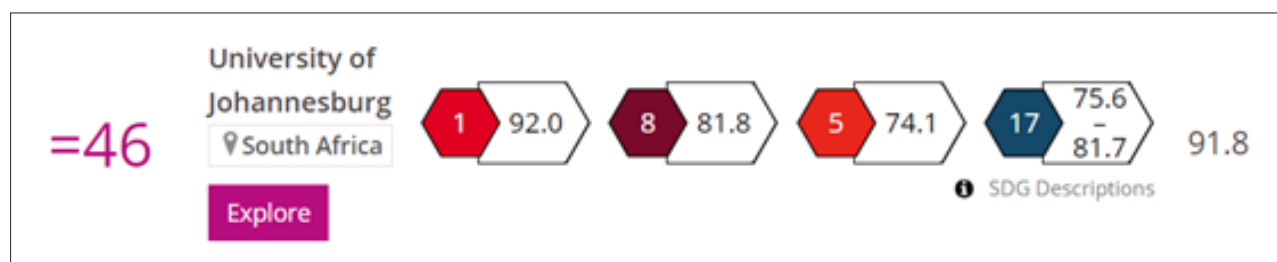


DELM leads the Education for Sustainable Futures Conference 2023

Authors: Prof Kat Yassim and Dr Bongani Mkhize

The third annual leadership conference hosted online by DELM in collaboration with Kagiso Trust and the NECT brought together a global perspective on Leading Education for Sustainable Futures. The engagement kicked off on 21 September 2023, highlighting the University of Johannesburg's success in achieving the SDGs (Sustainable Development Goals) according to the

Impact Rankings 2023. DELM's Head of Department, Dr Suraiya Naicker, opened the conference by providing the latest parameters which seemed to be unknown to non-UJ participants. UJ's strides as a top African university in multiple SDGs were celebrated during the two-day conference, solidifying its prominent status on the continent.



Dr. Njeri Mwagiru, a futurist from the University of Stellenbosch's Institute for Future Research, sparked a lively debate with her keynote on dispelling the misconception of predicting the future. Dr Njeri instead engaged the audience toward a future of education that is to be created. She challenged education leaders to expand their imagination and to apply this different lens towards action that is driven to create the future. To do this, education leaders must be empowered to make informed decisions and to take individual and collective action to change society to care for the planet within a VUCA context. She offered insights into how multiple kinds of futures are possible, hence it is the responsibility of education leaders to work as visionaries that co-create the future with all stakeholders including learners and their communities.

Prof. Ramesh Sharma, the second keynote speaker from Ambedkar University in India, provided a personalized perspective on global governance, delving into sustainability within the G21 framework. The acceptance of the African Union as a permanent member was celebrated as a milestone towards collaboration between developing countries that have the resources to influence the sustainability agenda. His "moving" PowerPoint offered an exploration of the role of education in developing innovations in renewable energy, digital inclusion, circular economy advancements, health care, Agri-Tech, and food security to name a few. Prof Sharma spoke of education as a conduit for realizing dreams, as is the case with India's recent milestone moment of sending a man to the moon. It is these "moonshot dreams that will enable a re-imagined future" he contended.

Prof. Ahmad Qablan from UAE University delivered the third keynote, focusing on the STEM-STEAM-STEMI interface, drawing significant engagement due to the global struggle with learning poverty. He emphasized the necessity of bolstering teacher training in science, math,

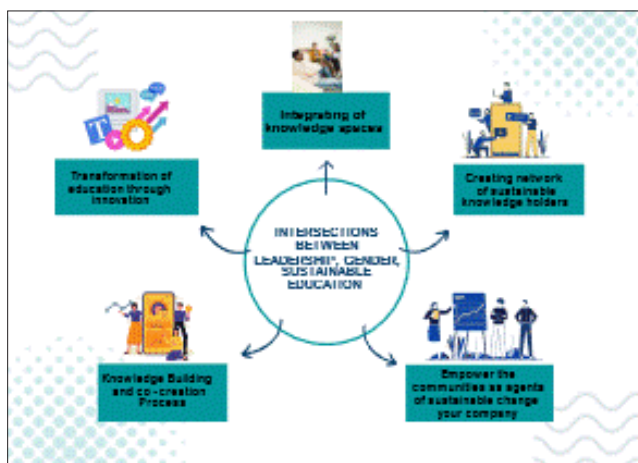
arts, and computer science, fostering problem-solving approaches crucial for tackling today's challenges. Qablan advocated for a shift in mindset towards a "living and learning" ethos, where relevant and responsive education facilitates authentic learning experiences. He highlighted the importance of lifelong learning, contrasting the current focus on school success with the broader aim of life success. Emphasizing sustainable education, he stressed that meaningful education should prioritize "how" to learn over "what" to learn.

The other presentations over the two days included:

Dr. Omotosho's impactful work on fostering entrepreneurial leadership among students received a warm reception from numerous school leaders. His presentation emphasized redirecting focus towards hands-on learning, embracing risk-taking, learning from failures, promoting digital literacy, offering mentorship and guidance, fostering collaboration skills, advocating for social responsibility, and facilitating networking. These strategies were recommended as key pathways for nurturing student enterprise.

Ms. Mukateko Sithole, a DELM PhD candidate, presented her research on school food gardens as an alternative learning space and a platform for green pedagogies. Highlighting the role of teacher leadership in reshaping the curriculum to foster pedagogical experiments supporting sustainable livelihood education, Sithole made abstract concepts tangible. Her insights resonated with numerous conference participants, generating a keen interest in collaborating with her.

Feminist and social activist Ms. Vainola Makan brought attention to the glaring gender disparity in discussions surrounding education for sustainability. Her advocacy focused on the significant contributions women make to sustainability, particularly evident in her work with young women in mining communities. Ms. Makan stressed the importance of integrating the perspectives



of marginalized voices, emphasizing the need for post-schooling opportunities that include the voices of those typically unheard. She highlighted that fostering inclusion could lead to the collaborative creation of sustainable solutions.

Dr. Mkwizu's presentation centered on integrating indigenous knowledge into sustainable education. Her focus on ecological tourism within Tanzania's SDG efforts offered school leaders valuable insights into fostering authentic learning through community partnerships. Highlighting the richness of unwritten knowledge from alternative perspectives, she emphasized the untapped potential of traditional wisdom. Dr. Mkwizu also stressed the importance of incorporating African philosophy to reshape our approach to teaching and learning, promoting a deeper, more inclusive understanding essential for sustainability.

Employed as a project manager for Siyakhana, an NPO that is linked to the UJ Center for Ecological Intelligences, Ms Thina Mazonda shared how the organization partners with schools in the Eastern Cape Department of Education, Nelson Mandela Museum, Walter Sisulu University, the Department of Rural Development and Agrarian Reform, and Nelson Mandela School of

Science and Technology, to support various sustainability reforms like, water harvesting, developing community food gardens, establishing wormeries and developing livelihoods amongst learners and unemployed community members. These collaborative initiatives make possible the co-creation of solutions to problems related to basic needs of food, shelter, sanitation, and unemployment.

DELM's Prof. Uleanya concluded the event by emphasizing the imperative for education to instil sustainability and awareness among all involved. Echoing Nelson Mandela's words, Uleanya underscored education as a potent tool for global change, advocating sustainability as the cornerstone of teaching and learning. Encouraging teacher agency and leadership, Prof Uleanya emphasized the pivotal role each individual plays, asking, "If not you, then who? If not now, then when?"

The conference ended on 22 September 2023, with a thought-provoking address from Dr. Naidoo, DELM's Deputy Head of Department. Dr. Naidoo urged school leaders to broaden their perspectives, embrace diverse lenses, unlearn, and relearn, and engage collaboratively toward a shared goal. Her challenge encapsulated the call to embody the change they aspire to see in the world.

7th Africa Education Leadership Round Table Conference 2023

4TH – 5TH October 2023

Hosted by the Department of Leadership and Management (DELM), Faculty of Education, University of Johannesburg

DELM Promoting Education Leadership for Human Flourishing beyond the 21st Century.

Authors: Dr P. Naidoo, Dr S. Seyama, Dr C Amsterdam, Ms M. Mongake, Dr B. Mkhize, Dr C. Potokri, Dr T. Olujuwon and Prof C Uleanya

The seventh Africa Education Leadership Round Table conference hosted by the Department of Education Leadership and Management (DELM) via a hybrid mode brought together delegates from countries within and outside the African continent. The focus was on education leadership for human flourishing beyond the 21st century. How the education sector and leadership of

institutions of learning can and should contribute towards education leadership for human flourishing beyond the 21st century was explored through various keynote addresses and diverse presentations.

The Dean of the Faculty of Education – Prof. Nadine Petersen, set the stage for the conversation by posing



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two leading questions, “What is effective leadership? And when is leadership effective? Adding on, Prof Petersen made a poignant statement by emphasising that leadership is effective, only when it is driven by “all-encompassing strong value system” grounded on enabling power. These thoughts and assertions set the tone for the two-day conference. This was followed by keynotes from distinguished scholars Prof. Philip Hallinger (Distinguished Visiting Professor, DELM) and Prof. Mestry (Emeritus Professor, DELM) who respectively considered the subjects of “instructional leadership” and “Supervisor-supervisee relationship”. Whilst the first keynote aimed at indicating how instructional leadership can contribute to human flourishing beyond this century, the second presented on the relational issues worth considering ensuring an empowering, smooth, and successful supervision towards the completion of Masters and Doctoral programmes. The keynote addresses inspired provocative questions from both the physical and virtual delegates, followed by insightful responses from the two keynote speakers.

The Faculty of Education’s Vice Dean of Research, Prof. Mdutshekelwa Ndlovu, set the tone on day two, discussing the current state of education quality in Africa. Following this, Distinguished Visiting Professor Anthony Onwuegbuzie delved into the intricacies of Mixed Method Research within the context of the 5th Industrial Revolution (5IR), sparking compelling discussions. Dr. Sadi Seyama, Senior Lecturer at DELM, then tackled the topic of neoliberal influence on leadership, highlighting the challenges to genuine inclusivity. Seyama proposed ‘Inclueffective’ leadership as a means to ensure both

effectiveness and inclusivity within organizations. The presentation advocated for the need to combine effective leadership with genuine inclusivity.

The hybrid conference attracted presenters from many countries, China, India, Kenya, Malawi, Mauritius, Namibia, Nigeria, South Africa, Tanzania, and United States of America. DELM is indeed very proud that on Day One, we had almost one hundred delegates joining the conference via the virtual platform. Over the two days, twenty-two presenters showcased their intuitive deliberations allowing for deep conversations regarding leadership for human flourishing in the 21st Century. Topics constituted a diverse spectrum, to mention a few, financing education in Sub-Saharan Africa, school leadership practices, self-directed learning, data driven leadership, anti-colonial educational leadership, technology for equitable scholarship programmes, entrepreneurial intentions for human flourishing, collective sustainable leadership practices, soft skills for sustainable administrative effectiveness, promoting mental health and well-being, artificial intelligence, service learning programmes, sustainable community evolution, social justice and “older” early career academics in South Africa.

The conference was closed by the Head of the Department, (DELM) - Dr Suraiya Naicker who applauded the contribution of all delegates and called for both national and international collaboration. She presented the need for colleagues in other countries to consider hosting the Africa Education Leadership Round Table in collaboration with the DELM, University of Johannesburg.

Exploring the affordances of Mixed Reality Simulation (MRS) in teacher education

Author: Dr. Dean van der Merwe

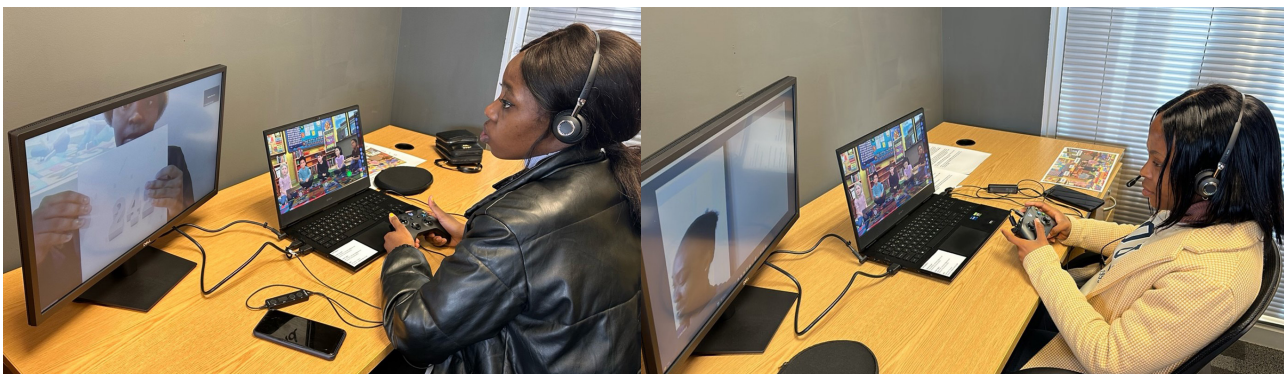
The “Mixed Reality Simulation (MRS) in Pre-Service Teacher Education” project at the Department of Childhood Education is exploring an innovative approach to enhance teacher preparation. Led by Prof Sarah Gravett and managed by Dr Dean van der Merwe, the project explores the integration of MRS to enhance pre-service teachers’ teaching practices.

The MRS project combines immersive virtual environments and human-directed puppetry, known as “human-in-the-loop”. This means that simulation specialists control digital avatars in real-time, creating an immersive experience for pre-service teachers to cultivate their teaching skills. The project’s primary goal is to guide and support pre-service teachers in developing competence in core teaching practices.



The project’s team includes Prof Nadine Petersen, Prof Jacqueline Batchelor, Prof Sarita Ramsaroop, Dr Kathleen Fonseca, Dr Fikile Simelane, and Pumzile Mello as a PhD research student within the project. In addition, two master’s students are involved, namely Pamela Tshabalala and Casey Bremner, while Patrick Makhubalo, Thandeka Ncube and Nthabiseng Tsotetsi will join the project as PhD students.

The initial phase of the project started in 2022 and involved 15 final-year student teachers using the TeachLive™ platform. Participants delivered lessons to computer-based avatars controlled by simulation specialists from the University of Central Florida. This laid the foundation for understanding the potential of MRS in teacher education.



To read more about how the MRS sessions were facilitated in 2022 and what we learned about the affordances of MRS in teacher education, explore the insights discussed in this article: <https://www.mdpi.com/2227-7102/13/10/1062>

In 2023, the project expanded with funding from the University of Johannesburg. The Mursion™ platform was introduced, and a significant stride in 2023 involved training in-house simulation specialists in collaboration with Mursion™. These specialists mastered the art of bringing educational scenarios to life, controlling avatars’ movements and voices. Third-year foundation and intermediate phase student teachers participated, focusing on the Teaching Methodology and Practicum

modules. These MRS sessions aimed to enhance the use of effective questioning in mathematics.

Early evidence suggests positive outcomes of this project, with student teachers showing increased competence in using questions as a core teaching practice. Reflections indicate deep thinking about practice and heightened self-efficacy. The commitment to ongoing research ensures that the project remains at the forefront of teacher education, preparing students for the challenges and opportunities of 21st-century classrooms.

The project aims to further integrate MRS into the DCE’s teacher education programmes in 2024, continuing to explore its potential benefits through ongoing research.



Celebrating Halloween as part of a team-building initiative: A Spooktacular Freaky Friday

Authors: Dr. Gadija Petker and Carmen du Plessis

The Faculty's Academic Administration domain unleashed some seriously scary vibes during their Halloween-themed Freaky Friday Team-Building event.

Epic and scary costumes added to a hauntingly delightful trick-or-treat adventure...It was a spooktacular boost for the team's spirit as they prepared to tip-toe into the last hollows of 2023.



Notable Achievements

| Recipient | Position | Achievement | Geographic Status |
|-------------------------|---|--|-------------------|
| Prof. Salim Vally | Academic Staff | Elected as a member of the Academy of Science of South Africa (ASSAf) | National |
| Prof. Umesh Ramnarain | Academic Staff, HOD | Elected as a member of the Academy of Science of South Africa (ASSAf) | National |
| Prof. Mondli Hlatshwayo | Academic Staff | Appointment as a member of the Ministerial Task Team on the Community Education and Training Branch. | National |
| Phuti Ragophala | Academic Staff; Visiting Academic Staff | Received the Order of the Baobab in silver from President Cyril Ramaphosa [28 April 2023] | National |
| Prof. Kerry J Kennedy | Distinguished Visiting Professor | Included in Stanford's top 2% of cited researchers in the world on a career-long basis. | International |
| Prof. Linda Chisolm | Academic Staff | Elected as Fellow of the British Academy | International |
| Prof. Shafika Isaacs | Visiting Academic Staff | Appointed as a member of the UNESCO Expert Group developing an AI Competency Framework for Teachers | International |
| Prof. Shafika Isaacs | Visiting Academic Staff | Appointed by the UNESCO Assistant Director General for Education to serve as a Jury Member on the UNESCO King Hamad Bin Isa Al-Khalifa Prize: ICT in Education | International |
| Dr. Suraiya Naicker | Academic Staff | Part of the 2023 cohort of the Research Leadership Programme (RLP) of UJ, established to develop research leadership for outstanding female academics and researchers. | Regional |
| Prof. Boitumelo Diale | Academic Staff | Appointed by the Registrar's office of UJ to serve as the Senate Representative on Senex. | National |
| Ms. Rabia Bhamjee | Postgraduate Student | Achieved second place in the esteemed and rigorously contested Three-Minute Thesis (3MT) competition, hosted at the University of Johannesburg on 28 July, 2023. | Regional |
| Tendayi Dzinoreva | Postgraduate Student | Awarded the distinguished Special Undergraduate Research Conference (URC) Scholarship, a prestigious accolade reserved for doctoral candidates of exceptional merit. | International |
| Prof. Shireen Motala | Academic Staff | Prof Shireen Motala, SARChI for Teaching and Learning in the Faculty of Education has been selected as a finalist for the 2023 HERS-SA HEWL Awards Lifetime Achiever Category. | National |
| Prof. Pierre Du Plessis | Academic Staff | EASA Research Medal winner for 2022 which was awarded at the EASA 2023 conference | National |
| Prof. Boitumelo Diale | Academic Staff | Chosen as one of the Top 10 HERS-SA Higher Education Women Leaders Awards in 2 categories: Everlasting Achiever & Trailblazer. | National |
| Dr. Nazreen Dasoo | Academic Staff; UNESCO/UNITWIN Chair | Elected to Chair the Global Alliance for Values Based Education (GAVE). | International |
| Prof. Nadine Petersen | Academic Staff; Executive Dean | Reappointed to the National Research Foundation board by the Minister for Higher Education, Science and Technology, Dr Nzimande for a second term. | National |