



University of Venda
Creating Future Leaders

UNIVEN Weekly e-Newsletter



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Building Excellence in Mass Spectrometry: How UNIVEN and CEMSSA Are Advancing Mass Spectrometry in Southern Africa



In recent years, the University of Venda (UNIVEN) has experienced substantial growth in research activity, with mass spectrometry emerging as one of its leading niches. In 2019, the university acquired a newly developed Liquid Chromatography Mass Spectrometry (LCMS) instrument from Shimadzu

Corporation in Japan. The LCMS 9030 model proved particularly notable for its robust design, enabling it to operate effectively under unstable laboratory conditions, including temperature fluctuations and inconsistent power supply during periods of load shedding.



Prof Edwin Madala

Under the leadership of Prof Edwin Madala, mass spectrometry has rapidly become central to numerous research projects across the institution. His efforts have also attracted a range number of collaborators, helping to shape research directions and ensuring that work conducted at UNIVEN gained national recognition.

A key achievement of this has been the training of postgraduate students using this instrument. To date, more than 15 MSc and 9 PhD candidates have been trained in mass spectrometry. Many have progressed to become independent researchers, while others are still pursuing further doctoral studies locally and internationally, including in Germany. This progress is particularly significant given UNIVEN's classification as a Historically Disadvantaged Institution (HDI) with a primary focus on teaching rather than research. Its emergence as a contributor to mass spectrometry research output reflects a notable institutional transformation.

Mass spectrometry research at UNIVEN is now highly interdisciplinary, involving staff from biochemistry, microbiology, chemistry, botany, environmental sciences, food science and technology, nutrition, and agriculture. The MS unit supports doctoral-level research across

these fields, with mass spectrometry serving as a core analytical technique. To further expand its application, the unit is incorporating artificial intelligence into its operations. This integration is expected to enable data science students to engage with Mass Spectrometry (MS) datasets, uncover latent structures, and contribute to the development of advanced analytical and multivariate statistical models.

In November 2025, the Vice-Chancellor and Principal, Prof Bernard Nthambeleni, officially launched the Centre of Excellence in Mass Spectrometry for Southern Africa (CEMSSA), recognising the pivotal role of mass spectrometry in advancing research at UNIVEN. Since its establishment, the centre has attracted growing interest from researchers seeking collaboration. In 2026, CEMSSA registered four PhD candidates and several master's students, including some from leading South African institutions such as Stellenbosch University and the University of the Western Cape.



Some of the newly developed LCMS instrument from Shimadzu Corporation in Japan

The centre operates through a decentralised model, allowing researchers from different departments to participate through student training and discipline-specific MS applications. This approach has then enabled students based at Agricultural Research Council satellite campuses to benefit from CEMSSA resources, aligning with its mandate to provide broad access to advanced MS capabilities.

In addition, Prof Madala has integrated modern analytical techniques, including mass spectrometry, into undergraduate curricula. This early exposure equips these students with foundational skills and improves their readiness for honours and postgraduate research, with many progressing into advanced programmes with clearly defined research interests.

CEMSSA has also expanded its human capacity by appointing its first postdoctoral fellow, Dr Mamokete Bokhale, who recently completed her PhD at the University of Pretoria. The centre has further strengthened its operational capacity through the appointment of Ms Mpho Makola as a research assistant, supporting the day-to-day functioning of the MS facility.

A major research focus within CEMSSA is the investigation of climate change impacts on plant chemistry, led by Prof Madala. This work examines dynamic molecular-level changes in plant metabolomes, particularly the effects of excessive sunlight exposure. Compounds such as cinnamic acid derivatives have been shown to undergo structural transformations, resulting in the formation of previously unreported isomers. Central to this research is the study of geometrical isomerisation, where light-induced transformations are harnessed to enhance the nutraceutical value of plant-derived foods and beverages. This approach also contributes to the conservation of underutilised plant species by uncovering their pharmacological potential.

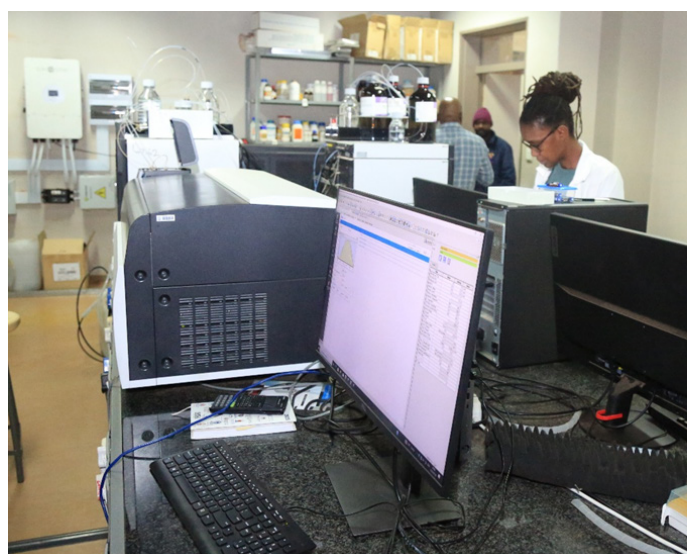
The programme is also currently focused on developing scalable protocols for controlled

metabolite modulation, functional food innovation, and plant resilience under climate-related stress. In the long term, it aims to position South Africa as a continental leader in advanced analytical science and translational research.

By exploiting the chemistry of underutilised plants, particularly those rich in cinnamic acid derivatives, researchers at UNIVEN are identifying optimal light conditions to maximise beneficial compound production. This work holds significant socio-economic potential, including community-based cultivation, small-scale processing, and the development of local value chains. Furthermore, it offers pathways to affordable health interventions through functional foods and nutraceuticals derived from optimised plant chemistry.



Showcasing cutting-edge mass spectrometry in action during a live lab demonstration at UNIVEN



A glimpse of inside the mass spectrometry lab—home to cutting-edge research and precision instrumentation

A Proud moment as UNIVEN's Partner Launches Mathuba Genetics and Farming Academy

On Monday, 04 May 2026, Mathuba Logistics and Farming Projects officially launched the Mathuba Farming Academy at Ha-Ravele Village outside Makhado in the Vhembe District of Limpopo Province. The launch marked a significant milestone in agricultural development and skills empowerment within the region.

The establishment of the Academy was inspired by the Founder of Mathuba Logistics and Farming Projects, Mr Emmanuel Mudau, after identifying the growing gap between theoretical agricultural knowledge and practical farming skills within the sector. Recognising the urgent need for hands-on agricultural training, particularly among young people and women, Mr Mudau established the Academy as a Centre of Excellence dedicated to empowering emerging farmers through practical

and accredited agricultural training.

The Academy specialises in modern livestock farming and offers practical training in sheep and goat production. It aims to equip participants with relevant technical knowledge, entrepreneurial skills, and practical farming experience necessary to succeed in the modern agricultural sector.

The official launch ceremony was attended by various stakeholders, including government representatives, academics, agricultural practitioners, students, farmers, and members of the local community. The event was officially opened by the Vice-Chancellor and Principal of the University of Venda (UNIVEN), Prof Bernard Nthambeleni.



Mr Emmanuel Mudau (middle) flanked by Thovhele Kutama and Chief Vho Sinthumule (left) and Prof Bernard Nthambeleni, UNIVEN Vice-Chancellor and Principal (right) cutting the ribbon



In his keynote address, Prof Nthambeleni described the launch of the Academy as a significant milestone not only for the institution itself, but also for the broader community, the youth, and the future of agriculture within the region. He highlighted that the Academy represents hope, opportunity, innovation, and empowerment.

Prof Nthambeleni stated that Mathuba Farming Academy has been established with a clear vision to equip individuals with the knowledge, practical skills, and confidence required to thrive in modern agriculture. He further emphasised that agriculture remains a powerful engine for economic growth, food security, job creation, and community upliftment.

He further indicated that the establishment of this academy responds directly to global and national developmental priorities, including the United Nations Sustainable Development Goal 2: Zero Hunger. Prof Nthambeleni noted that institutions such as Mathuba Farming Academy play a critical role in addressing food insecurity challenges through skills development, sustainable farming practices, and agricultural entrepreneurship.

Prof Nthambeleni also highlighted the

importance of entrepreneurship in higher education, especially at a time when graduate unemployment continues to affect many young people in South Africa. He explained that the UNIVEN, through its Strategic Plan 2026–2030 and Vision 2040: A Beacon of Hope for Societal Change, seeks to position itself as a centre for entrepreneurship and innovation. Through partnerships such as the one with Mathuba Farming Academy, students will benefit from Work-Integrated Learning opportunities and gain practical exposure in livestock production and agribusiness.



UNIVEN Vice Chancellor and Principal, Prof Bernard Nthambeleni reading the Plaque after cutting the ribbon

He further noted that the partnership between UNIVEN and Mathuba Farming Academy reflects the University's commitment to meaningful community engagement and bridging the gap between academic knowledge and practical application.

Speaking during the event, the Founder of Mathuba Farming Academy, Mr Emmanuel Mudau, reflected on his journey in establishing the Academy. He explained that the project was self-funded from its inception and required significant sacrifice and determination.

Mr Emmanuel Mudau, the Founder of Mathuba Farming Academy, shared that he started his

farming journey in 2008 with only a few goats after resigning from his position at a furniture shop. Through perseverance, discipline, and passion for agriculture, he managed to build a successful farming enterprise that now collaborates with institutions of higher learning and agricultural organisations to provide practical agricultural training and high-tech farming skills.

He expressed gratitude to his family for supporting him throughout the journey, particularly during a difficult period when resources intended for family use were redirected towards building the business. Mr Mudau encouraged black communities, particularly young people, to take agriculture seriously, describing farming as the future of every nation. He stressed that without food there can be no life and no future, adding that agriculture remains the backbone of the economy.

UNIVEN Experimental Farm Manager, Ms Thifheli Kutama, also congratulated Mr Mudau on the successful launch of the Academy. She highlighted the initiative's importance in strengthening existing partnerships to empower farmers across the Vhembe District.

Ms Kutama further noted that the Academy would continue to support University initiatives and programmes focused on farmer development and practical student training. She emphasised that the Academy would provide undergraduate students with valuable Work-Integrated Learning opportunities and encourage more young people to pursue careers in agriculture. According to Ms Kutama, the practical skills offered through the Academy will assist students and emerging farmers to thrive within the agricultural sector.

The launch of Mathuba Farming Academy represents an important contribution toward agricultural development, youth empowerment, entrepreneurship, and food security in Limpopo Province. The Academy is expected to play a significant role in developing practical farming skills, supporting emerging farmers, creating employment opportunities, and contributing towards sustainable rural economic development within the Vhembe District and beyond.



A group photo of Mathuba Farming Academy Founder (2nd from left), Partners and Traditional Leadership



Ms Thifheli Kutama



Above photo: Delegates visiting Tshilwavhusiku Razwimisani Special School where Mr Mudau donated livestock worth more than R30 000



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UNIVERSITY OF VENDA

2026 Autumn Graduation Ceremonies

The Vice Chancellor of the University of Venda (UNIVEN), Prof Bernard Nthambeleni, invites you to the 2026 Autumn Graduation Ceremony that will take place at the University Auditorium from 19 -22 May 2026 and is scheduled to start at **09h00 am (First Sessions) and 13h00 pm (Second Sessions)**.

NB: Graduands and Guests should arrive TWO HOURS BEFORE the commencement of each ceremony.

For more information, kindly contact the Faculty Administrators as reflected in each session OR Visit our website: www.univen.ac.za. The graduation will be live streamed.

SESSIONS	DATE	TIME	CONTACT
SESSION 1: Faculty of Management, Commerce and Law Management and Commerce	19 May 2026 Morning Session:	09h00	Caroline Rampheri 015 962 8827 Caroline.Rampheri@univen.ac.za
SESSION 2: Faculty of Health Sciences, and Faculty of Management, Commerce and Law Health Sciences + Law	19 May 2026 Afternoon Session:	13h00	Aluwani Bugane (Health Sciences) 015 962 8942 Aluwani.Bugane@univen.ac.za Julius Netshidzivhe (Law) 015 962 8961 Julius.Netshidzivhe@univen.ac.za
SESSION 3: Faculty of Science, Engineering and Agriculture Environmental Sciences + Agricultural Sciences	20 May 2026 Morning Session:	09h00	Mishumo Nengwekhulu (Environmental Sciences) 015 962 8954 Mishumo.Nengwekhulu@univen.ac.za Maxwell Maboho (Agric Sciences) 015 962 8880 Maxwell.Maboho@univen.ac.za
SESSION 4: Faculty of Science, Engineering and Agriculture Maths and Natural Sciences	20 May 2026 Afternoon Session:	13h00	Mukondeleli Masia 015 962 8086 Mukondeleli.Masia@univen.ac.za
SESSION 5: Faculty of Humanities, Social Sciences and Education Human and Social Sciences	21 May 2026 Morning Session:	09h00	Mashudu Mainganye 015 962 8969 Mashudu.Mainganye@univen.ac.za
SESSION 6: Faculty of Humanities, Social Sciences and Education Honours for the Faculty Education, Foundation Phase Teaching and Senior Phase Teaching	21 May 2026 Afternoon Session:	13h00	Gumani Tshimange 015 962 8888 Gumani.Tshimange@univen.ac.za Mashudu Mainganye 015 962 8969 Mashudu.Mainganye@univen.ac.za
SESSION 7: Faculty of Humanities, Social Sciences and Education [SEPGCE] + Masters and Doctoral	22 May 2026 Morning Session:	09h00	Gumani Tshimange 015 962 8888 Gumani.Tshimange@univen.ac.za Mashudu Mainganye 015 962 8969 Mashudu.Mainganye@univen.ac.za

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Notice of UNIVEN Convocation Annual General Meeting of 20 June 2026



Notice is hereby given of the 2026 Annual General Meeting (AGM) of the Convocation of the University of Venda (Univen), which is scheduled to take place as follows: **Date:** Saturday, 20 June 2026 | **Venue:** A venue in Mpumalanga to be confirmed | **Time:** 10h30

In terms of paragraph 12.1(2) of the Constitution of the Convocation a notice of the AGM of Convocation must be published at least five weeks before the date of the AGM.

This is an elective AGM. In terms of paragraph 8(2) of the Constitution of the Convocation, nominations for the positions of President, Vice President, five (5) Convocation members, and one (1) Convocation member living with disabilities must be submitted in writing to the Secretary to Convocation.

In terms of paragraph 56(1)(a)-(d) of the Univen Institutional Statute, the Convocation consists of: (a) all the persons, other than the persons referred to in subparagraph 1(b), who were immediately before the commencement of this statute members of the convocation of the University; (b) the Vice Chancellor, the Deputy Vice-Chancellors and the Registrar; (c) the permanent academic employees designated by the Council on the recommendation of the Senate to be members; and (d) all graduates of the University.

In terms of paragraph 58(2) of the Institutional Statute, it is the duty of every member to notify the Secretary of any change of address and such address is regarded as the member's registered address. Furthermore, paragraph 58(4) of the Institutional Statute provides that, once a voting day for the election of the executive committee of the Convocation is announced, the voters' roll will open for registration for 15 calendar days.

Accordingly, every member who intends to participate in the AGM process needs to update their details on the voter's roll, as anyone who does not appear on the voter's roll will not be allowed to vote at the AGM.

AGENDA

1. Adoption of Minutes of the AGM of 25 October 2025
2. Report of the President of Convocation
3. The Vice Chancellor's State of the Campus Report
4. Adoption of the Revised Constitution of Convocation
5. Elections of the President and Vice President of Convocation, five (5) Convocation members and one (1) Convocation member living with disabilities.
6. Any other motion complying with the requirements of paragraph 12.1(3) of the Constitution of the Convocation.

NOMINATIONS

The call and process of nominations shall be issued on **18th May** and close on **29th May 2026** at 16h45.

[CLICK HERE TO RSVP](#)

RSVP by not later than **4 June 2026**

For additional information, please email mashudu.ramaleba@univen.ac.za and justice.lebopa@univen.ac.za