



FACULTY OF NATURAL SCIENCES NEWSLETTER: JULY 2025

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Executive Dean, Faculty of Natural Sciences

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Sustainability

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Contents

EXECUTIVE SUMMARY	2
ADMINISTRATION	2
TEACHING AND LEARNING	3
RESEARCH AND INTERNATIONALISATION	4
COMMUNITY ENGAGEMENT	7
STUDENT ENGAGEMENT.....	8
STAFF DEVELOPMENT.....	9
NOTICES	11

EXECUTIVE SUMMARY

Midyear exams came late. Faculty of Natural Sciences (FNS) turned this experience into many lessons:

- i. We know that the meaning of exam percentage pass rate must be contextual. To manage such a conceptual leap means walking away from accepted theories and embracing something different instead.
- ii. We accept that activism is central in our role. The whole is greater than the sum of its parts means collective moralism for true academic integrity – shared teaching, research and community engagement.
- iii. We are ready to start Semester 2 with clearly defined key performance indicators. Logically, we aim for an end-of-year celebration of collective efforts.

For the month of July, we highlight the resilience of both NMD And BCC staff and students. Applied Sciences Department staff were placed ahead in terms of academic calendar. This allowed them to make a seamless move of Food Science from College Road to Chislehurst. In Mthatha, Biological & Environmental Sciences, Chemical & Physical Sciences and Mathematical Sciences & Computing behaved as if there was no disturbance. They remained stable in their support to students while they pursue individual and group projects. External stakeholder partnerships and collaborations are on track.

ADMINISTRATION

The Faculty Office worked collaboratively with the Office of the Registrar to respond to and efficiently address issues related to (i) final alignment of modules for correct audits – assessments and programmes in each department of the faculty, (ii) capturing of marks and (iii) publication of examination results. Stakeholder interactions were effectively made possible by the full-time presence of administration staff on and off-campus. For example, following a special engagement with the whole institution, the WSU Alumni Association has a clear understanding of strategic implications associated with the role of FNS to facilitate impact within and outside WSU. Counting FNS in WSU achievement, Mrs Mathabo Hendricks stated that the “Principals Luncheon” was a resounding success across all four campuses due to teamwork, creativity and dedication.

The following plans will be rolled out to completion with the comprehensive support services in the faculty and all department offices by the end of this year:

- i. Administration agreements with WSU Directorates, including Office of the Registrar, DLT, PME, HR, MCD, Research & Innovation, Postgraduate Studies and Finance. The aim is to enhance FNS accountability to WSU and mitigate challenges of compliance with institutional plans.
- ii. FNS staff will submit mid-year performance indicator reports which will be analysed as part of the benchmark for improved staff performance.
- iii. FNS website link in the WSU general website will be established in a process led by administrators working with Marketing and Communications Directorate and ICT.

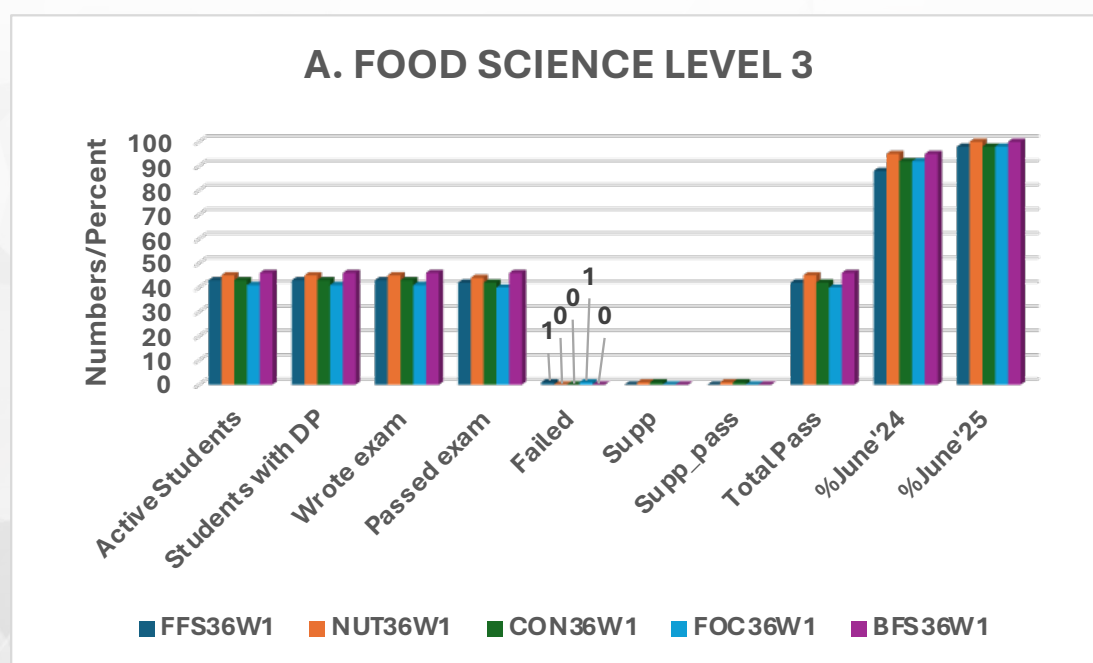
TEACHING AND LEARNING

June examination results came at different times and varied in quality. Consequently, the Faculty Examinations Committee (FACEX) agreed to do an introspective review to understand the results before submission to the Senate Academic Committee (SAC). The average performances of the faculty and its departments is shown in **Figure 1**. **Figure 2** reveals the top performing department (Applied Sciences) information for two majors (programmes). FACEX concluded that based on time taken by students to complete degrees, the realistic outcome should be that we have a pass rate of less than 50% overall. Hence, we need to implement a holistic intervention rapidly (**Figure 3**).

Figure 1. FNS mid-year exams results



Figure 2. Comparative analysis of Applied Sciences majors



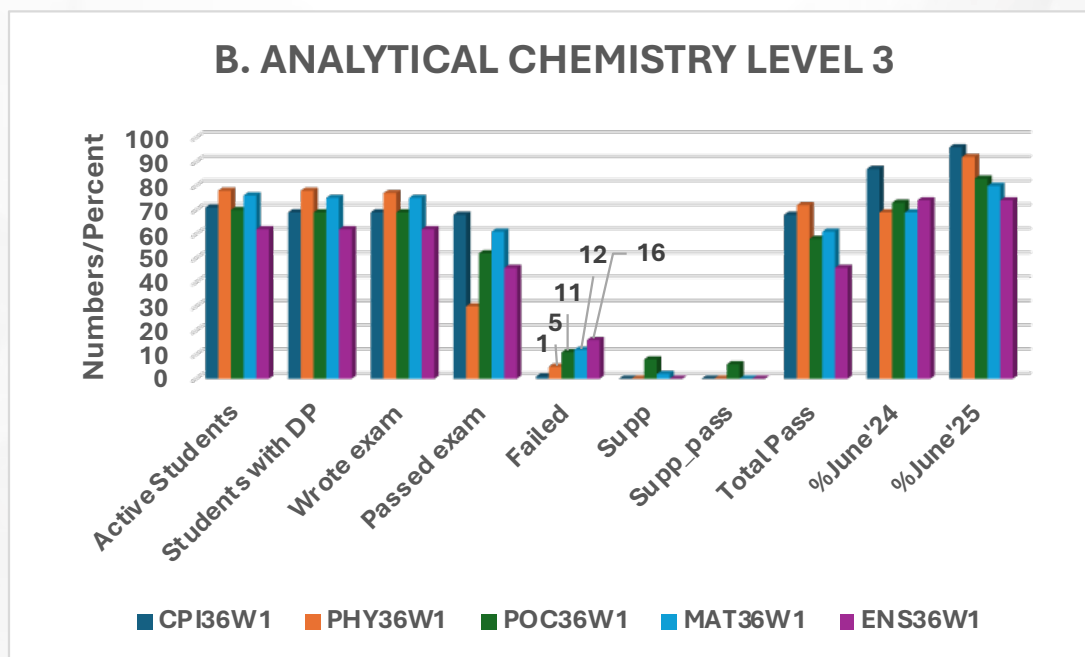


Figure 3. FNS staff unanimous in support for corrective measures to improve.

UNSATISFACTORY EXAM RESULTS PROMPTED DEAN MEETING EVERY DEPARTMENT IN PERSON: INTROSPECTION AND RISK EVASION IN THE LONG TERM

- Faculty Examination Committee recommended high level analysis and **risk improvement** plans for modules showing less than 50% pass rate.
- Dean must consider a comprehensive **risk assurance** report for Senate approval – identification of internal controls for risk management strategies to improve teaching and learning.
- Pedagogy specialist support is needed **for turnaround strategy** – consult PME.
- Staff must confirm **presence at work** – professionals must not be subjected to micromanagement; just stick to integrity.
- **Class attendance** by students is compulsory – together with every aspect of teaching and learning
- All staff must submit **Key Performance Indicators**



RESEARCH AND INTERNATIONALISATION

While we wait for the final announcement of our 2024 research outputs, the faculty staff continue to accelerate research endeavours.

1. Responding to WSU Research & Innovation Directorate, FNS established an Innovation Task Team with Terms of Reference approval (**Figure 4**).
2. Faculty staff participated in the EWIRA programme writing retreat and are confident about submitting new journal articles within weeks (**Figure 5**).
3. Faculty Research & Higher Degrees Committee appointed a new chairperson (Professor Sinkala), is upbeat about

postgraduate students who are fully on track (approved) and there are plans to remove “red tape” associated with applications, registration, supervision as we unleash publications per graduating student in record time (**Figure 6**).

4. Dean’s appointment as Guest Editor for a Springer Nature Journal brings fresh motivation and optimism about internationalisation and acceleration of the WSU SDG rating contribution by FNS (**Figure 7**).

Figure 4. Faculty of Natural Sciences established an Innovation Committee Task Team

FACULTY OF NATURAL SCIENCES INNOVATION COMMITTEE


OPERATIONS AND DECISIONS WILL BE GUIDED BY THE FOLLOWING PRINCIPLES:

- ✓ **Creator-Centric:** To support and empower students and staff as the primary source of innovation,
- ✓ ensuring processes are clear, fair, and encouraging.
- ✓ **Market-Aware:** To make decisions informed by real -world market needs, industry trends,
- ✓ and commercial viability, ensuring university resources are directed towards impactful solutions.
- ✓ **Transparent Governance :** To conduct all activities with clarity, consistency, and accountability,
- ✓ building trust among innovators and stakeholders.
- ✓ **Strategic Alignment:** To ensure all innovation initiatives directly support the broader strategic goals of WSU and contribute to its reputation for excellence.
- ✓ **Agile and Responsive :** To operate with the flexibility required to navigate the dynamic and
- ✓ often non-linear path of innovation, adapting processes to meet the unique needs of different technologies and sectors.

Figure 5. Faculty women participated in the EWIRA programme writing retreat

EWIRA WRITING RETREAT BOOSTS PUBLICATION CONFIDENCE FOR FNS WOMEN

- The institutional EWIRA invited academic staff and postgraduate students to participate in a writing retreat scheduled for July in East London.
- Each faculty was invited to nominate up to five participants.
- Eligible applicants had to have a manuscript that is at least 75% complete.



A photograph of four Black women standing together and smiling in front of a white banner that reads 'WALTER SISULU UNIVERSITY'. The banner also features the WSU logo and the text 'Innovation in Excellence'. The women are dressed in casual to semi-formal attire, including a leather jacket, a black hoodie, a white sweater, and a colorful patterned top.

Figure 6. Number of postgraduate applications and registrations approved

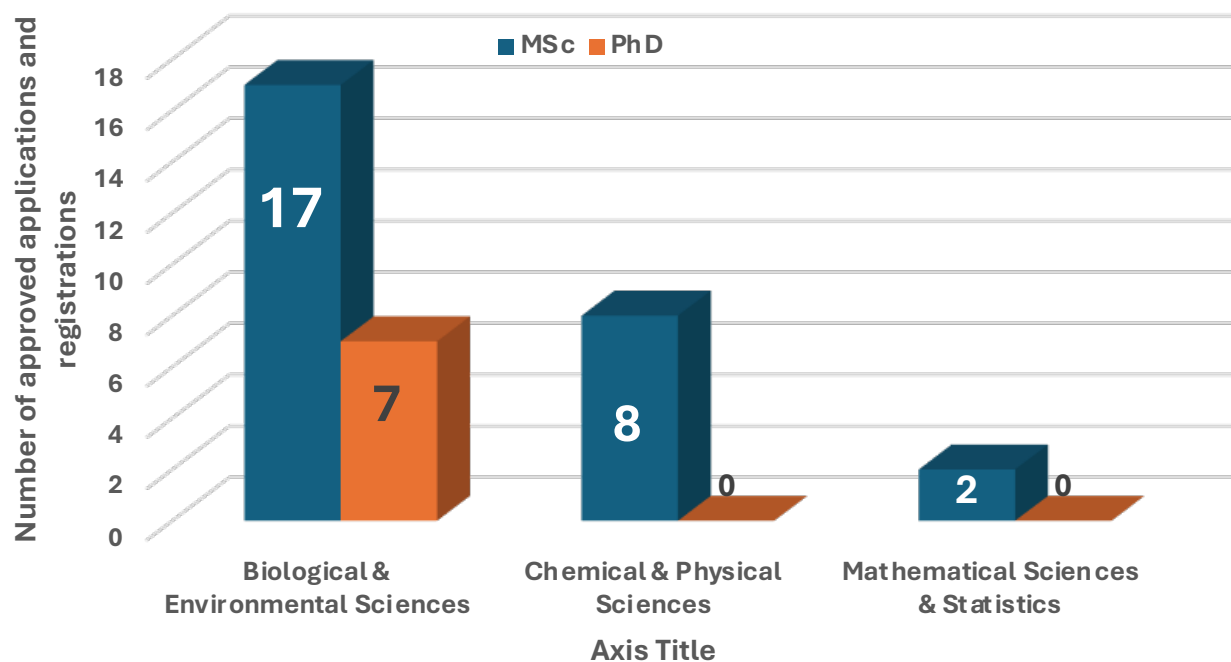


Figure 7. Executive Dean Accepted Appointment as Guest Editor



GUEST EDITOR

Dear Dr. Modi,

- We are pleased to inform you that the webpage for your Collection **'Regenerative Agriculture Pathways for Sustainable Environment and Food Systems'** has now been launched.
- **Collection website link:**
https://link.springer.com/collections/ahafbceigd?utm_medium=email&utm_source=generic&utm_content=null&utm_term=null&utm_campaign=CONR_43621_CON1_GL_PHSS_03HEM_ahafbceigd
- **INVITATION TO AUTHORS**
- Discover Sustainability is part of the Discover journal series committed to providing a streamlined submission process, rapid review and publication, and a high level of author service at every stage. It is an open access, community-focused journal publishing research from across all fields relevant to sustainability research.
- If you are interested in preparing a manuscript for consideration at Discover Sustainability as part of this Collection, please let us know and I would be happy to provide further detail. Submissions will be welcomed at any point up until 31 May 2026, but if you are unable to submit a manuscript before this date, please let us know as we may be able to be flexible.

COMMUNITY ENGAGEMENT

The major highlights of FNS community engagements in July were:

- Audit workshop to determine the sustainability of the WSU Eastern Cape Indigenous Knowledge Documentation Centre by a team from the national Department of Science and Innovation (DSI) and the Council for Scientific and Industrial Research (CSIR). This was linked to an international webinar on IKS (**Figure 8**).
- Spatial Data Intelligence Course offered by NTG in partnership with FNS has reached the final phase of examinations for a Certificate (NQF Level 5). About 150 unemployed youth, mainly (80%) WSU graduates benefitted. Graduation date will be announced soon (**Figure 9**).
- FNS joined other WSU faculties during a "Principals Luncheon" to showcase our programmes for the appetite of future students as they consider applications for 2026 (**Figure 10**).

Figure 8. WSU Indigenous Knowledge Documentation Centre received a clean audit and hosted an international webinar.



Figure 9. Spatial Data Intelligence Course assisted unemployed WSU graduates with skills that can assist Local-District Municipality LED (Local Economic Development) planning programmes.

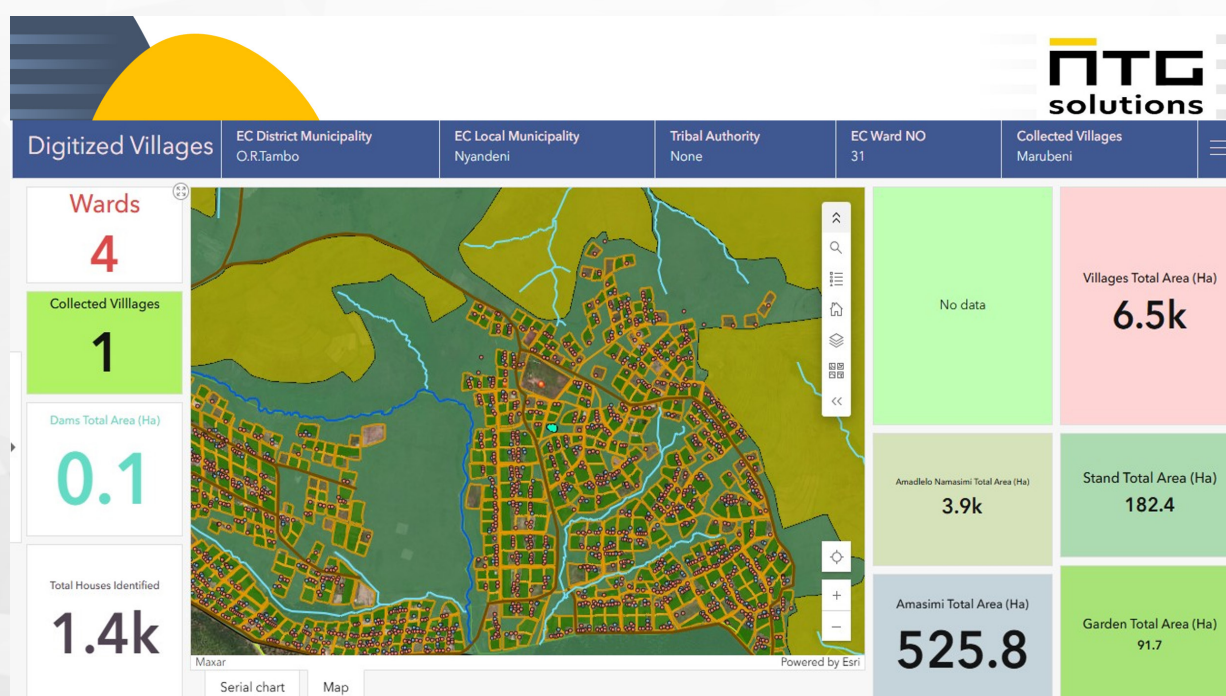



Figure 10. Faculty of Natural Sciences Administrator represented management at the WSU Principal's Luncheon



**WSU FACULTY OF NATURAL SCIENCES
ADMISISIONS SCORES CLARIFIED BY
NOKUZOLA DANGAZELE TO PRINCIPALS**

Main Stream (BSc 3 years)

- ✓ 4 (50-59%) for English as a Home Language or as a First Additional Language
- ✓ 5 (60-69%) for Mathematics
- ✓ 5 (60-69%) for Physical Sciences
- ✓ 5 (60-69%) for Life Sciences (or Agriculture or Geography)

Extended Programme (BSc 4 years)

- ✓ (50-59%) for English as a Home Language or as a First Additional Language
- ✓ 3 (40-49) for 2 of the majors below and 4 (50-59) for the third major
 - Mathematics
 - Physical Sciences
 - Life Sciences

STUDENT ENGAGEMENT

Food Science students of APS have a new home, from College Road to renovated Chiselhurst campus lecturer rooms and laboratories. The HOD, Professor Raymond Taziwa said that this is a positive move in terms of space and continued closeness to industry for Work Integrated Learning (Figure 11). The GreenGrow initiative of FNS is attracting adventurous students willing to take us far (Figure 12).

Figure 11. Food Science staff are thrilled about the move from College Road to Chiselhurst.



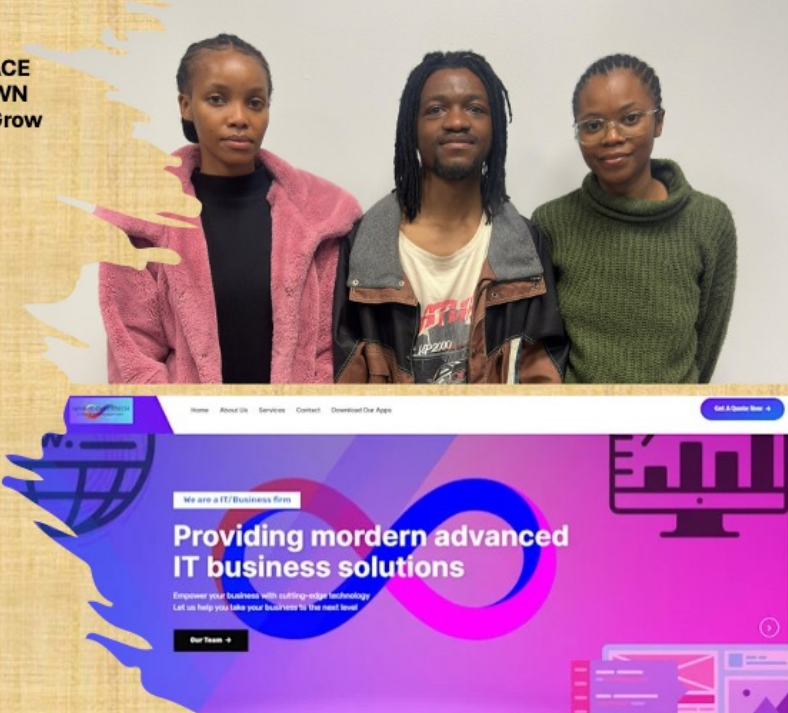
**FOOD SCIENCE
MOVED TO
CHISELHURST**

“This is a welcome change, and we welcome the retention of closeness to industry partners for WIL aspects of this programme”, Prof Raymond Taziwa, HOD.

Figure 12. Richard Chinomona (3rd year Computer Science), Cesky Nengudza (3rd year Applied Maths) and Akhanya Mzuzi (3rd year Applied Maths) already established Infinity Cybertech IT Company to support web development.

FNS UNDERGRAD STUDENTS EMBRACE SOFT SKILLS INITIATIVE: STARTED OWN COMPANY TO ASSIST THE FNS GreenGrow INITIATIVE AT WSU

- GreenGrow promotes experiential learning through real-world applications of classroom theory - community outreach, participatory research, entrepreneurial ventures
- Richard Chinomona (3rd year Computer Science), Cesky Nengudza (3rd year Applied Maths) and Akhanya Mzuzi (3rd year Applied Maths) already established Infinity Cybertech IT Company to support web development
- <https://www.infinitycybertech.com/>



The image shows three students (two women and one man) standing together. Below them is a screenshot of the Infinity Cybertech website, which features a purple and blue design with the text 'Providing modern advanced IT business solutions' and 'We are a IT/Business firm'.



STAFF DEVELOPMENT


The Faculty is pleased to see progress in staff qualifications and promotions (Figure 13)

Inam Yekwayo is Associate Professor, Zizipho Mki is a Lab Technician, Lukhanyo Stemele obtained PhD, Nasiphi Phaliso led the FNS Famelab winners and William Vambe put WSU on the map.

INAM YEKWAYO IS THE NEW ASSOCIATE PROFESSOR OF NATURAL SCIENCES AT WSU

- Obtained C3 NRF rating in 2025
- Promoted to Associate Professor of Biological Sciences



Illegal sand mining alters the species composition of ants, beetles, and spiders in a grassland: A case study in Eastern Cape, South Africa

July 2025 *African Entomology* 33(1)

DOI: 10.17159/2254-8854/2025/a20570

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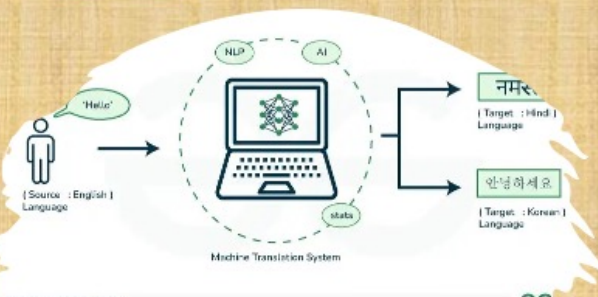


ZIPHO MKI IS NOW A TECHNICIAN:

This Female Migration Is A Huge Testament To Transformation

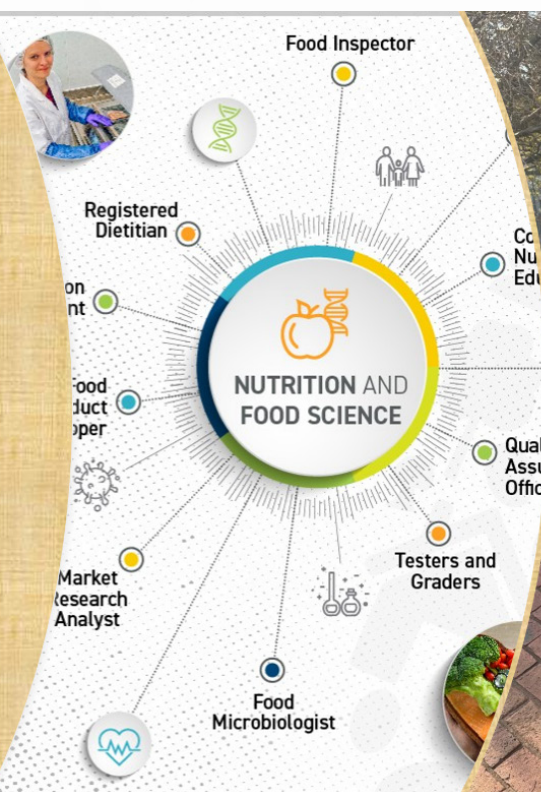
Talking about a Vice Chancellor who says go slow, but never backwards in her talk to encourage change?

- Student administrative assistant: 2021 -2022/3
- Department Administrator in the Department of Mathematical Sciences and Computing: 2023 - 2025
- Now - Computer Science Lab Technician: 2025 - 2026 (Acting)
- **MSc candidate - Neural Machine Translation for Translating Computer Literacy Material into IsiXhosa to Enhance Digital Literacy in Rural Primary Schools.**



LUKHANYO STEMELE, PhD (UJ)
Food Science Lecturer adds meaning to Applied Sciences Department plan to make rapid strides in academic staff qualifications

Thesis:
Social Justice in Hospitality and Employment in South Africa

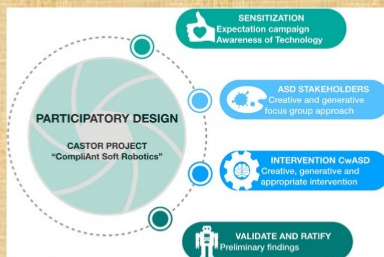


NASIPHI PHALISO WINS WSU FAMELAB COMPETITION FOR FNS HEADING FOR NATIONAL COMPETITION TO REPRESENT WSU



• Thirteen FNS staff and students got certificates

- ❖ Richard Chinomona
- ❖ Memory Khumalo
- ❖ Gugulethu Miya
- ❖ Lwanda Matiso
- ❖ Zanele Xelelo
- ❖ Siyanda Nkwenkwe
- ❖ Mbikazi Ketelo
- ❖ Nasiphi Phaliso (winner)
- ❖ Tokozani Mangesi
- ❖ Zizipho Mnyaka (runner up)
- ❖ Obakhe Yalezo
- ❖ Sibulele Ngwane
- ❖ Siphokazi Pikini



Incidentally, during the MSC staff and Dean introspection meeting, Nasiphi offered to develop a FNS staff and student register index.



Dr WILLIAM VAMBE PUTS WSU ON THE MAP

2025 IEEE Conference on Information
Communications Technology and Society (ICTAS)

- **#ICTAS Best Presenter
Runner Up Award**
- Computer Science Senior
Lecturer, FNS, WSU
- National Institute for
Theoretical and
Computational Sciences
(NITheCS) Associate



Internationally renowned researchers including Prof. Raja Chatila (IEEE Fellow), Prof. FaustoGiunchiglia, Prof. Volker Skwarek, and Dr. Matteo Busso, alongside South African specialists Dr. Dave Govender and Nicolaas van Wyk, were present to share insights on the latest developments in ICT, Engineering, and Digital Finance.

NOTICES

1. [STRETCHING A RAND, GROWING A GARDEN](#)
2. [Web Development](#)
3. **CALL FOR PAPERS.** [Regenerative Agriculture Pathways for Sustainable Environment and Food Systems | SpringerLink](#)