



TUT'S VISION

A people's university that makes knowledge work

At TUT, we embrace engaged scholarship whereby learning, teaching, research and engagement is integrated with our everyday realities. Our University is committed towards breaking down the ivory towers of academia by finding authentic and enduring solutions to our communities' most pressing problems.

We empower our graduates by future-proofing them to successfully negotiate the rapidly changing world of work and to make tangible movement towards civic renewal.

TUT'S MISSION

We advance social and economic transformation through relevant curricula, impactful research and engagement, quality learning experiences, dedicated staff and an enabling environment.

Our mission directs us towards solving pressing societal problems and ensuring that our graduates are productive and active citizens.

Our suite of programmes and qualifications, research and innovation, as well as engagement with stakeholders are aimed at making a positive impact on our communities.

We are a committed staff who works tirelessly towards providing a quality service and conducive teaching, learning and living spaces.

PILLARS AND GOALS

We have identified four equally important pillars to support our strategy over the next six years. These are:

- Future-ready graduates who make a positive societal impact;
- Impactful research, innovation, engagement and technology transfer to foster growth, development and sustainability;
- Service and operational excellence through resource optimisation; and
- Digitally-advanced university.

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1. Climate Change, Water Security and Disaster Management - Faculty of Engineering and the Built Environment
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RESEARCH NICHE AREAS

The Research and Innovation at TUT is driven by a strategy of gearing research towards institutionally approved research niche areas, which promote innovative research for the economic development of the country and enjoy international recognition. A Research Niche Area has a well-defined research theme and should move through a development trajectory up to the stage where it is regarded as a TUT centre.

Table 1: 2025 Active TUT Research Niche Areas

LEADER	APPROVED NICHE AREAS	CONTACT DETAILS
FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT		
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FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

Climate Change, Water Security and Disaster Management

FOCUS

This niche area will seek to analyse and mitigate against the potential impacts of climate and land use changes on water resources and the environment. The occurrence of pollution, floods, drought, and forest fires, all of which destabilise human activities, is considered an essential component of the research niche area. The niche area is intended to tackle some of the most challenging hazards the world faces today. Its establishment is motivated by the fact that, unless reliable solutions to these events are sought, natural and human-induced disasters will continue to pose serious threats, consequently negating all the development that the world has so far enjoyed. The research under this niche area is grouped into the following thematic areas:

- Pollution and remediation.
- Groundwater sustainability.
- Watershed hydrology.
- Flood forecasting and development of coping mechanisms.
- Drought forecasting and coping mechanisms.
- Fire forecasting and coping mechanisms.

OBJECTIVES

The following specific research captured under the thematic headings is underway:

1. Pollution and Remediation

This thematic area is centred on the use of normally constructed wetlands and hybridised types in remediating mine-polluted water and wastewater. The specific research under this thematic area is outlined as follows:

i. Constructed Wetland in Mine Water Pollution Remediation

The research aims to explore the relatively new area of using wetland plants to remove heavy metals from wastewater generated from mining and mineral processing activities. The research objective is to optimise the use of vegetated constructed wetlands in treating mine water. The study also seeks to develop empirical models to predict the heavy metal removal efficiencies in constructed wetlands. These models will aid in the design of constructed wetlands that are industry-specific, for the treatment of mine waters to prevent heavy metal contamination that would result when mining industries discharge untreated or poorly treated wastewater into the environment.

ii. Hybridised Constructed Wetland in Municipal Wastewater Treatment

This research work is investigating alternative phosphorus removal technologies that are economically feasible, using specialised substrates with physico-chemical properties that could influence the P-sorption phenomena onto their surfaces. Experiments are being carried out on the suitability of Blast Furnace Slag (BFS) and SUDFLOC 3850 as potential substrates in constructed wetlands for municipal wastewater treatment, which, if found suitable, will reduce the solid waste management problems associated with the iron and steel industries and the water treatment industry.

2. Groundwater Sustainability

Groundwater sustainability remains a key focus area of the groundwater-surface water nexus, contributing to sustainable water resources that are geared towards future water security. It is therefore imperative to advance knowledge in this area to inform policy actions that will, in the long term, safeguard groundwater utilisation to ensure its availability for posterity. Currently running under this theme are the following research:

i. Conjunctive Use of Groundwater and Surface Water Resources

An efficient management of water resources is vital for the long-term utilisation and sustainability of the resource base in South Africa. Conjunctive water use management of surface water and groundwater resources has potential to alleviate water shortage problems arising from the ever-increasing demands and climate change. The overall objective of this research is to develop a tool capable of optimising the conjunctive use of surface water and groundwater, taking into account scanty data, uncertainty conditions, through application of simulation-optimisation techniques. The management tool will provide an optimal (sustainable) conjunctive water use strategy for development of surface water and groundwater conjunctive water use policy.

ii. **Linked Simulation-Optimisation Model of Groundwater Pollution Monitoring**

The study aims to explore the impact of mining activities on groundwater system by understanding the dispersion of pollutants through application of groundwater simulation model. The simulation model is then linked with an optimisation algorithm in the amount of contaminants that can be discharged into the system without degrading the quality of the water in aquifers. The objective is to develop a groundwater pollution monitoring model capable of characterising groundwater system and optimising contaminants discharged from mining areas with limited observation points.

iii. **Modelling Groundwater Under Uncertainty**

Increasing population, urbanisation and expansion in agriculture over the years has led to unscientific exploitation of groundwater resources. The consequence of this practice is the inefficient and unsustainable use of our water resources. To remedy this situation, it is substantial that exploitation of these resources be carried out with the aid of scientific tools, which would inform on how to utilise the resources optimally. Groundwater recharge is one of the most important parameters, which aids in proper evaluation of the resources and yet it is difficult to determine with certainty. Previous approaches used to determine groundwater recharge have been based on deterministic approach, which assumes that all the input data is known without error. This assumption is invalid since typically only a few sets of data are available to define the current situation of the system with certainty. Therefore, this research aims to develop a comprehensive quasi three-dimensional model for groundwater management. The novelty of this research work is that the determination of groundwater recharge parameter is sought under uncertainty.

3. **Watershed Hydrology**

The deteriorating repercussions of climate change on hydrology of watersheds are immense and critical to water resources availability. Among many others are the alterations introduced into the hydrologic regime due to climate change. The hydrologic regime alterations in part are also linked to changes in land use, which result mainly due to anthropogenic activities. Evolving knowledge and understanding of current trends in land use impacts on watershed hydrology under changing climate is indispensable if we are to protect water resources. Under this theme, the following are ongoing projects:

i. **Hydrologic dynamics under land use/cover and climate change**

The project seeks to investigate the impact of land use on watershed hydrology in both space and time using emerging technologies of GIS/RS and hydrologic model. Key components of the hydrologic cycle including surface runoff, groundwater, lateral flow and evaporation are under investigation. The summative impact on water resources in terms of water yield will also be assessed. Eventually, a Decision Support Tool (DST) configured within a hydrologic model environment is envisaged to be a key output of this study to aid water managers and key policy stakeholders to make informed decisions on water resources planning and management.

ii. **The impact of land use/cover and climate changes on the Spatio-Temporal Dynamics of Sediment Yield**

Sedimentation resulting from soil erosion is widely acknowledged as a major environmental issue in South African watersheds affecting reservoir capacity, water quality and ecosystem functioning services. To curtail sedimentation requires the implementation of conservation measures that are based on sound scientific judgement. In view of this, it is essential to acquire knowledge on sediment yield sources, the interrelationship of sediment yield with land use types and the hotspots within the watersheds. The objective of this study is therefore to establish, through the application of geographic information systems (GIS) and modelling tools, the various sediment sources, sediment yields and their spatial coverage within the watershed. Proposals on remediation measures based on the study results will also be given.

The niche area SDGs are as follows:

- SDG 6 (Clean Water and Sanitation).
- SDG 9 (Industry, Innovation and Infrastructure).
- SDG 13 (Climate Action).

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FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

Operations and Engineering Management

FOCUS

In creating a niche area in Operations and Engineering Management, we create synergy across two faculties that are engaged in research on techniques and technologies relating to management practices linked to engineering decisions and industry operations such as supply chain management, operations research, project management and system dynamics.

OBJECTIVES

We are drawing on the structured master's programme in Engineering Management that is part of the Industrial Engineering department. This programme is unique in that it draws students from all fields of engineering and engages staff as research advisors from the different engineering departments in the Faculty of Engineering and the Built Environment. We are also drawing on the research master's programmes in both Industrial Engineering and Operations Management. There is an advantage to connect the two departments with the common techniques and practices. We will focus and work on these commonalities.

The specific research projects will address:

1. Supply Chain Management – issues that relate to supply chains and how reconfigurable technology implementation impacts the thinking around the supply chain for better responsiveness; decision support systems for demand forecasting and inventory planning; and facility location and distribution linked to mail delivery.

2. Operations Research – technology used in improving productivity in operations and associated human factor issues that may negatively or positively affect the manufacturing or service organisation; and multi-criteria optimisation problems addressing manufacturing and service delivery.
3. Discrete Simulation – permutation of various scenarios to optimise production in a production setting whilst adapting to new technology; simulation of service delivery to assist decision makers; and learning factory simulation.
4. Business Dynamics and System Dynamics – questions of how various factors can impact the state of a system as it evolves through the generations; and use of system dynamics to assist in planning for smart cities.
5. Project Management – project management in particular skills transfer in small and micro-enterprises to ensure cost-effective, timely and delivery on expected quality; and project management practices to mitigate risks due to various constraints
6. Life Cycle Management – the holistic thinking in design of systems considering their entire life from cradle to grave to aid decision makers arrive at optimal decisions; and replacement models and de-manufacturing in the life cycle.
7. Quality Management – in manufacturing and service offerings, how will adaptable product thinking affect the quality of delivery of both products and services that are statistical quality control; and the role of quality circles, lean manufacturing and quality standards.

PRODUCTS AND SERVICES

1. STAFF DEVELOPMENT

Staff development is a key component of the strategy of our niche area effort. Recently, several members of the project have received their doctoral qualifications, and several staff in both departments are working on their doctorates. The continued research of these staff will be further enabled by the synergy this research niche area provides.

[A] Completed Theses

- AG Bibili Nzengue – Development of a Supply Chain Model for Screw Jack Press Brake Machine Production.
- Moyahabo Dominic Ramere – Performance Improvement of Medium Voltage Overhead Line Distribution Network Using Switching Device Placement Approach.
- PA Mangakane – Development of a System Dynamics Model for the Professional Engineers Pipeline.

[B] Theses and Dissertations in Progress

- A Demanufacturing Operation Model for the Rail Industry in South Africa (doctoral research).

- Modelling Techniques to Optimise System Productivity in Welding Intensive Industry (doctoral research).
- Hybrid Framework to Improve Small- to Medium-sized Manufacturers' flexibility to Market Turbulence in the Mass-Customization Era (master's research).
- Productivity Improvement Using Value Stream Mapping (VSM) and Discrete Event Simulation (master's research).
- Optimisation of Resource Planning and Scheduling Process to Meet the Organisation's Objectives (master's research).

2. INTERNATIONAL COLLABORATION

- International Network on Appropriate Technology (INAT).
- University of Tennessee in USA.
- Southern Africa Postal Operator Association (SAPOA).
- PEESA III project (European Universities).

The niche area SDG is as follows:

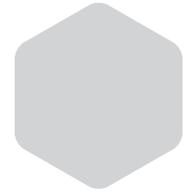
- SDG 9 (Industry, Innovation and Infrastructure).

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FACULTY OF ECONOMICS AND FINANCE

Inclusive Growth, Socio-economic Development and Transformation

FOCUS

This niche area seeks to analyse prevalent socio-economic challenges related to the integration of vulnerable groups and informal businesses into the formal economic system, with the ultimate aim of revitalising inclusive economic growth, socio-economic development, and structural transformation in the Republic of South Africa.

To this end, the area of focus includes the examination of improved urban-rural linkages, sustainable economic growth trajectories, and the advancement of both the digital and green economies. It further encompasses research on the political economy of innovation and entrepreneurship, alongside public sector financial management and accounting methodologies that contribute to economic growth, development, and transformation.

Ultimately, this niche area generates evidence-based policy inputs designed to support economic transformation, mitigate the effects of slow growth and high unemployment, and advance the achievement of the Sustainable Development Goals (SDGs) in South Africa and beyond.

Inclusive Growth is defined by the OECD (2015) as “*economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society.*”

OBJECTIVES

- To analyse the role of infrastructure in enhancing the success of the African Continental Free Trade Agreement (AfCFTA).

- To identify the unique contributions of development finance institutions (DFIs) to economic, material, and physical infrastructure development.
- To examine the incidence of poverty and the distribution of income among individuals and households.
- To identify mechanisms that promote balanced economic growth across sectors, including interactions between private-sector stakeholders and government, as well as between tradable and non-tradable activities, with implications for inclusiveness.
- To evaluate how pro-growth policies foster inclusive economic development.
- To analyse the role of innovation and entrepreneurship in driving inclusive growth, socio-economic development, and transformation.
- To assess the influence of regulatory agencies and financial institutions in promoting inclusive growth.
- To analyse employment elasticities in relation to economic growth.
- To critically examine the drivers, prospects, and pathways of economic transformation.
- To determine the role of digital transformation in facilitating the transition to a knowledge economy and supporting the creation of innovative, high value-added national enterprises.
- To evaluate the impact of corporate green investment on firms' economic performance in both developed and emerging economies.

Additional Research Areas

- Exploring the ethical, cultural, and pedagogical implications of GenAI in education.
- Ethics in the Public Sector: Identifying, clarifying, and exploring challenges and solutions related to the development and application of codes of ethics within the African public sector.
- Public Sector Financial Management: Investigating issues and solutions related to the implementation, enforcement, and compliance with financial management policies and legislation in the South African public sector.

Context

Slow economic growth, high unemployment, and widening inequalities have placed Inclusive Growth at the center of South Africa's policy discourse. This niche area aligns with the following Sustainable Development Goals (SDGs):

- **SDG 1: No Poverty**
- **SDG 8: Decent Work and Economic Growth**
- **SDG 10: Reduced Inequalities**

Government policy affirms that South Africa requires a transformation that paves the way for inclusive economic growth and development. Economic growth without

transformation risks perpetuating the country's historic inequities, while transformation without growth is likely to be narrow and unsustainable.

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FACULTY OF ARTS AND DESIGN

Creative Industries and Cultural Discourses of the Global South

FOCUS

The research niche area investigates the interplay between economic development and cultural expression in Africa and Southern Africa's economies. The research focus area comprehensively examines how the Global South has utilised its diverse cultural heritage to create new industries and shape global narratives. By exploring the intricate relationship between cultural production, identity, and economic growth, the various arts and design disciplines highlight the transformative power of creativity in driving socio-economic progress. This niche area emphasises the need for sustainable policies that encourage and amplify cultural initiatives, leading to the holistic development of the Global South.

This niche area is a merger of the two phased-out niche areas in the Faculty of Arts and Design, namely Reconstruction of the Past and Crafting a New Multicultural South African Landscape through the Arts and Critical Studies in Visual Arts.

Mission

- To harness the expertise of a small, yet highly regarded, cohort of senior scholars and a growing legion of emerging researchers in the Faculty of Arts and Design.
- To promote and cultivate research, both practice-based/led and theoretical, into the historical, contemporary, and forthcoming performative, design, and artistic practices of the Global South.

Research Focus Areas

- Global South Digital Platforms and Local Content.
- Transnational Collaborations in Global South Creative Industries.

- Cultural Preservation and Innovation in Global South Creativity.
- Decolonising Creative Production in the Global South.
- Creative Activism and Social Change in the Global South.
- Environmental and Ecological Discourses in Global South Art.

There are more than 30 postgraduate students registered under this niche area.

OBJECTIVES

- To encourage and support students, lecturers, and research associates (i.e. post-doctoral fellows and faculty-linked Professor Emeritus/Extraordinaire).
- To produce creative and research outputs that contribute to advancing the creative industries and cultural discourses of the Global South.
- To cultivate strategic collaborations and partnerships with other institutions and funding bodies (Quadruple helix) that will increase the research output of the researchers affiliated with the niche area.
- To generate third-stream income through creative outputs and commissioned research projects.
- To harness creative and innovative research leading to patents and commercialisation of artefacts.

SERVICES AND PRODUCTS

- Craftmen and artisans offer handcrafted pottery, ceramics, jewellery, and artwork that celebrate the artistic traditions of the Global South. These products carry deep cultural meanings and resonate with a growing interest in authenticity and heritage.
- Literary and artistic contributions from the Global South explore cultural identity, history, and modern issues in literature, film, and traditional arts.
- The TUT Arts Festival celebrates the cultural vibrancy of the Global South through music, art, literature, film, and fashion, attracting local and international audiences.
- Performing arts, including dance, theatre, and storytelling, showcase the Global South's cultural diversity and creative talent.
- The rise of digital platforms has enabled creators from the Global South to connect with global audiences through online content, including web series, podcasts, vlogs, and digital art.
- Fashion and textiles from the Global South, including traditional clothing, vibrant patterns, and sustainable practices, have captured global attention.
- Our workshops offer opportunities to develop skills and exchange knowledge in traditional and innovative arts and crafts techniques.

The niche area SDGs are as follows:

- SDG 8 (Decent Work and Economic Growth).
- SDG 9 (Industry, Innovation and Infrastructure).
- SDG 10 (Reduced Inequalities).
- SDG 11 (Sustainable Cities and Communities).
- SDG 12 (Responsible Consumption and Production).
- SDG 13 (Climate Action).

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FACULTY OF ARTS AND DESIGN

Artivism as a Tool to Combat Gender-Based Violence

FOCUS

This niche area explores artivism, the intersection of art and activism, that is framed as a powerful tool in response to gender-based violence and femicide. It examines how creative practices including visual arts, performance, literature, and multimedia can be mobilised as strategies to confront this urgent social challenge.

Artivism in this context seeks to raise awareness, challenge harmful societal norms, amplify the voices of those most affected, foster healing and empowerment, and advocate for lasting social change. The research is motivated by the need to address a critical national and global issue, while also bridging the gap between scholarship and practice.

Within the university context, this niche area reflects the institution's commitment to transformation, inclusivity, and social impact. It positions the Faculty of Arts and Design as a leader in generating knowledge that does not remain confined to academia, but actively engages communities, students, and practitioners in co-creation of responsive solutions. By foregrounding the arts as a vital force for justice and healing, the research advances both scholarly contribution and the university's broader mission to confront pressing societal challenges.

OBJECTIVES

The research objectives of this niche area are to examine the transformative potential of artivism in addressing gender-based violence and femicide by investigating how it challenges and reshapes societal norms, exploring its role in promoting healing, resilience, and empowerment, and considering the intersectional dimensions of these experiences. The research further aims to assess the

effectiveness of creative practices as tools for advocacy and social change, foster collaborations between academic environments, practitioners, and communities, and contribute to the advancement of knowledge and scholarship at the intersection of art, activism, and social justice.

The research aims to:

1. Investigate activism as a transformative approach to addressing gender-based violence in South Africa.
2. Explore how creative practices challenge harmful norms, raise awareness, and foster dialogue.
3. Analyse how activism promotes healing, resilience, and empowerment among survivors.
4. Apply an intersectional lens to capture the diverse experiences of women, LGBTQ+ individuals, and persons with disabilities.
5. Assess the effectiveness of art-based interventions in preventing violence and driving social change.
6. Foster collaborations between scholars, artists, activists, and communities to co-create relevant interventions.
7. Contribute to trauma-informed approaches that support healing and recovery.
8. Bridge academic research and practical application to strengthen activist initiatives.
9. Advance scholarship on gender-based violence and activism within the South African context.

PRODUCTS AND SERVICES

1. *Development of A Collab Hub:*
 - a. The Imagination Lab is established as a virtual space for researchers and artists to create innovative and impactful research and creative research outputs.
2. *Site for Community Engagement* to raise awareness and foster change:
 - a. Hello Community Arts Programme.
 - b. Voice It in Action.
 - c. 100 Days Challenge – End GBVF.
3. *Postgraduate Studies in Progress:*
 - a. Co-designing Gender-based Violence-safe Spaces at a Higher Education Institution: A Socio-ecological Approach – Inge Newport (Doctor of Art and Design).
 - b. Gender-Based violence and coping strategies: An analysis of the prevalent risk factors in higher institutions of learning – Manoko Mogoroga (Doctor of Education).

- c. Unveiling artistic narratives: Exploring the contemporary jewellery practice of selected South African women – Nina Newman (Doctor of Art and Design).
- d. Investigating the use of sexist language – Mawela Priscilla (Master of Language Practice).
- e. South African Photo Comics: Examining the female hero archetype – Sarah Viljoen (Master of Arts and Design: Fine and Applied Arts).
- f. How 'New' Are They? Visualisations of Women in Selected Artworks from the Sasol New Signatures Art Competition from 2013 to 2023 – Annemarie Maganya (Master of Art and Design).
- g. Analysing the impact of Politeness on Zulu Female Actors' Truthful Embodiment of Character Intent – Chantell Khumalo (Research Master's in Performing Arts).
- h. Exploring Effector Patterns to regulate the expression of vulnerability in black South African Male Actors – Hlongwane Tshepiso (Research Master's in Performing Arts).

4. *Graduated postgraduate students:*

- a. Genderlect: Application of Netspeak in Social Media Correspondence of GBV – Lebogang Setlhabane (Doctor of Language Practice).
- b. Sarah Viljoen South African Photo Comics: Examining the female hero archetype – candidate? (Master of Arts and Design: Fine and Applied Arts).

5. *Establish Partnerships with:*

- a. Research Platforms e.g. special edition of the South African Journal of Art History.
- b. Institutions of Higher Education who engage in the symposia and research activities:
 - » Wellesley College, USA - Visiting Professor Smitha Radhakrishnan.
 - » University of South Africa.
 - » University of Western Cape.
 - » University of Pretoria.
 - » University of Witwatersrand.
 - » Sefako Makgatho Health Sciences University.
 - » Stellenbosch University.
 - » University of KwaZulu-Natal.
 - » Cape Peninsula University of Technology.
 - » North-West University.
 - » Vaal University of Technology.
 - » University of Johannesburg.
 - » The Student Affairs and Extracurricular Development (SAED).
- c. Government:
 - » Department of Social Development.
 - » Department of Cooperative Governance and Traditional Affairs

- (COGTA).
 - » Gauteng Provincial Safety and Security (GPSAS).
 - » Constitutional Court of South Africa.
 - » Department of Women, Youth and Persons with Disabilities.
 - d. Industry:
 - » Vasan Putter – KwaZulu-Natal, Independent artist.
 - » HERS-SA -Dr Soraya Beukes.
 - » Judge Albie Sachs.
 - » The South African State Theatre (SAST).
 - e. NGOs:
 - » World of Impact (Eish Impact).
 - f. National Partners:
 - » City of Tshwane Metropolitan Municipality.
 - g. International Partners:
 - » Community Arts Network.
 - » The Global Commons Alliance.
 - » Ricky Rick Foundation for the Promotion of Activism.
6. *Research Outputs 2024/2025:*
- a. Decolonial Conversations with Performance Voice Training in Higher Education in the South African Pluriverse – *Dr Karina Lemmer*.
 - b. Socio-environmentally sustainable framework to support South African fashion design entrepreneurs in producing sustainable clothes – *Prof Anne Mason*.
 - c. Empowering South African Women in Mining: Redesigned Personal Protective Clothing (PPC) Solutions – *Prof Anne Mason*.
 - d. Meshwork choreography: a pragmatic approach to collaborative embodied learning in South African higher education – *Dr Nicola Haskins*.
 - e. Moving Memories: Shifting the Locus of Enunciation in Choreographic Composition – *Dr Nicola Haskins*.
 - f. Go-Itata Ritualised Theatre Performance Modes of koma Aesthetics in a Performance as Research Production: Wela – *Prof Janine Lewis*.
7. *Collaborative Artists:*
- a. Dr Deléne Human – Bringing Agency to the Silenced: Visual Art Education as a Tool for Social Justice and Gender-Based Violence Awareness.
 - b. Ms Nkululeko Khumalo – GBV Through the Archival Photographs of Works of Len Khumalo.
 - c. Dr Dineke Orton – Displaying Self-Narratives in This song is for...
 - d. Dr Jessica Draper – SELF[i]EXPOSURE: Reflecting on Gender through Smartphones
 - e. Ms Tsholofelo Shounyane – Girl Power Project, Nelson Mandela Children's Fund and ASSITEJ SA.
 - f. Ms Motshabi Tyelele – Shwele Bawo! A Grave Injustice!
 - g. Dr Louise Marie Combrink – Oh, and she fell in the garden.

8. *Creative Research Outputs 2024/2025:*
- a. Theatre, Performance and Dance (*Rapture*) – Dr Nicola Haskins
 - b. Theatre, Performance and Dance (*Displaced*) – Dr Nicola Haskins
 - c. Theatre, Performance and Dance (*Kitchen confessions*) – Dr Nicola Haskins
 - d. Theatre, Performance and Dance (*Shaka Zulu*) – Mr Wandile Mgcodo
 - e. Theatre, Performance and Dance (*Mr President Lighting*) – Mr Wandile Mgcodo
 - f. Theatre, Performance and Dance (*Two Trains Running*) – Dr Karina Lemmer
 - g. Theatre, Performance and Dance (*Left in the cracks*) – Prof Janine Lewis
 - h. Theatre, Performance and Dance (*Mad House - The Last Hour*) – Rostislava Viktorovna Pashkevitch-Ngobeni
 - i. Theatre, Performance and Dance (*The future is now*) – Rostislava Viktorovna Pashkevitch-Ngobeni
 - j. Theatre, Performance and Dance (*The silent wanderer-Ballet*) – Mr Wandile Mgcodo
 - k. Theatre, Performance and Dance (*Costume design for a theatre play titled 'Tsogo: The rise of Charlotte Maxeke'*) – Motshidisi Shawn Manyeneng
 - l. Theatre, Performance and Dance (*[in]crusted*) – Prof Janine Lewis
 - m. Theatre, Performance and Dance (*Mr President Directing*) – Dr Karina Lemmer
 - n. Theatre, Performance and Dance (*The Farm*) – Dr Karina Lemmer
 - o. Theatre, Performance and Dance (*Party Time*) – Dr Karina Lemmer

The niche area SDG is as follows:

- SDG 5 (Gender Equality) (Primary).
- SDG 10 (Reduced Inequalities).
- UN SDG 16 (Peace, Justice, and Strong Institutions).

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- Prevent occupational risks, injuries and diseases;
- Promote the physical, mental and social health and well-being of workers, their families and communities; and
- Manage and provide rehabilitative interventions for occupational diseases and injuries in the workplace.

The niche area SDGs are as follows:

- SDG 8 (Decent Work and Economic Growth).
- SDG 3 (Good Health and Well-Being).

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FACULTY OF SCIENCE

Occupational Health and Safety

FOCUS

The niche area focuses on managing health and promoting safety in the workplace. To this end, health and safety are viewed holistically, including workers' physical, mental, and social well-being in both the formal and informal sectors, their families, institutions, and communities. The disciplines involved in the niche area include public health, nursing, environmental health, psychology, epidemiology, rehabilitation, hygiene, safety and engineering.

The Core Research Focus Areas

- i. Prevention and control of work-related diseases and injuries.
- ii. Development and management of occupational health and safety education and services.
- iii. Protection of vulnerable populations in the workplace.
- iv. Collaboration to prevent and treat communicable and non-communicable diseases.
- v. Promote environmental health practices and health systems.

The niche area aims to promote research and professional competencies of students, researchers and industry to support and empower vulnerable populations in the workplace.

OBJECTIVES

The objectives of the Occupational Health and Safety niche area are to:

- Conduct research, practice development and education;



FACULTY OF MANAGEMENT SCIENCES

The Living Wage, Executive Remuneration, Human Resource Data Analytics and Human Resource Outcomes

FOCUS

There are various decent work indicators; and this niche area's focus will be on these Human Resource Management (HRM) outcomes: namely job satisfaction, employee engagement, organisational commitment, absenteeism, turnover and retention. They are driven mainly by rewards, including but not limited to incentives, recognition, training and development, work-life balance, quality of work and a living wage. One way to provide quality education is by providing skills needed in the labour market. Hence, in this niche area, the focus will be on skills required for the gig economy, like data analytics or science. Regarding executive remuneration, the focus will be exploring gender and financial predictors of executive income in organisations. In other executive compensation, the focus was on pay transparency. This aligns with King IV's principles, stating that executive remuneration is published in annual reports.

OBJECTIVES

To create an atmosphere for innovation in research and related curriculum development and technology transfer that takes advantage of the significant role management and engineering management can play in industry and the community in South Africa.

To align with the United Nations Sustainable Development Goals (SDGs). "The SDGs are global and societal issues developed to positively impact people's lives and improve their quality of life," Carr, S.C., Maleka, M.J., Meyer, I. & Barry, M.L., Haar,

J. & Parker, J. et al. (2018). The niche area SDGs are as follows:

- SDG 1 (No Poverty).
- SDG 4 (Quality Education).
- SDG 5 (Gender Equality).
- SDG 8 (Decent Work and Economic Growth).
- SDG 10 (Reduced Inequalities).
- Exploring a total rewards framework for the South African Public Service.
- Exploring a living wage index in eMalahleni and surrounding areas.
- Developing data science competencies using Excel, SPSS and Python in eMalahleni and surrounding areas.
- Exploring digital competencies for remuneration practitioners working in organisations and government departments in eMalahleni and surrounding areas.
- Predictors of executives remuneration operating in organisations and state-owned enterprises.
- Investigating an effective commitment in Nkangala district.
- Exploring digital competencies for remuneration practitioners working in organisations and government departments in eMalahleni and surrounding areas.
- Exploring employees' perceptions about the gender wage gap.

Each objective will be achieved as part of the master's and doctorate supervision and conducting non-degree projects.

SERVICES AND PRODUCTS

- Staff Development**
The niche area will develop Short Learning Programmes (SLPs), conduct research and develop staff.
- International Collaboration**
This niche area is associated with the Global Living Organisational Wage (GLOW), of which the niche area leader is the current coordinator. The niche area will continue to conduct living wage research in African countries (i.e. Namibia and Zimbabwe).
- National Collaboration**
The niche area has close association with the University of Cape Town and North-West University, where collaboration includes writing book chapters, conference papers and journal articles.



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