DUT
DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT

DUT AUTUMN GRADUATION 2025

STAMPED WITH POSSIBILITIES

2025 AUTUMN GRAD STUDENT PROFILING

faculty of Engineering and the bult environment

21 YEARS 2004-2025

ENVISION2030

transparency • honesty • integrity • respect • accountability
fairness • professionalism • commitment • compassion • excellence

CREATIVE. DISTINCTIVE. IMPACTFUL.

THE DEAN MESSAGE

1. NAME
   Sudesh
2. SURNAME
   Rathilal
3. TITLE
   Professor
4. POSITION
   Acting Executive Dean

Dear graduates,

As we come to the close of this momentous occasion, I want to take a moment to reflect on the incredible journey that has brought you to this point. The late nights, the early mornings, the countless cups of coffee, and the unwavering determination, it has all been worth it.

Today, you stand, proud and accomplished, with a degree in hand and a world of possibilities at your feet. You are the future leaders, innovators, and change-makers of our global community. You are the ones who will shape the future, and who will make a positive impact on the lives of others.

Remember that the knowledge and skills you've acquired here are not just tools for personal success, but also a powerful force for good. Use them to lift up those around you, to empower marginalized communities, and to fight for justice and equality.

As you go forth, hold dear the values of compassion, empathy, and respect that have hopefully been instilled in you during your time here.

You have demonstrated not only technical competence and academic rigor but also resilience, creativity, and teamwork. The challenges you will face beyond these university walls are real, but so are the opportunities to shape a better, smarter, and more sustainable world. We believe in you, and we are proud of you.

And as you move forward, remember that your alma mater will always be here for you, cheering you on, supporting you, and guiding you. We also wish to see you in the future for further degrees and diplomas or as colleagues and collaborators.

Congratulations once again, may your future be bright, may your impact be profound, and may your legacy be one of kindness, compassion, and love.

Kind Regards,
Prof Sudesh Rathilal
Acting Executive Dean

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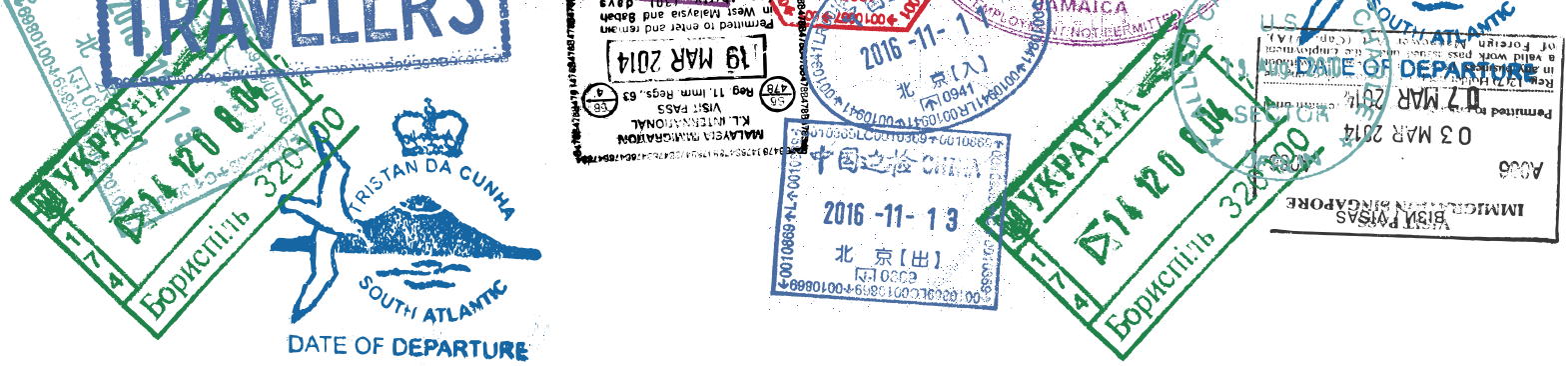

AUTUMN GRADUATION PHD ABSTRACTS

Degree of Doctor of Philosophy in the Built Environment

APPAU Williams Miller

Title of Thesis

Framework for Evaluation of Energy Sustainability in Evolving University Students' Housing in Ghana

Summary

This study focused on addressing the residential sector's increasing energy demands through a robust framework for assessing indoor energy sustainability. Recognising that conventional student housing in Ghana often overlooks sustainable design principles. The study developed a conceptual framework that examines indoor energy sustainability in student housing in Ghana, whilst measuring the impacts of sustainable design on energy consumption, and key drivers and barriers towards integrated sustainable design (ISD), and the need to achieve energy-efficient, health-consciousness through design, and comfortable environments that support academic and social well-being among students. This study is grounded in the Theory of Planned Behaviour (TPB) and Integral Sustainable Design (ISD) concepts, thus a pragmatist research approach was adopted thereby using combined quantitative and qualitative data. The main aim of the study was to develop a conceptual model on critical factors influencing the indoor environmental energy sustainability of student housing in Ghana. Key findings revealed that integral sustainable design (ISD) decisions are influenced by building orientation, envelope design, window glazing, indoor circulation area, and floor span, whilst the major drivers for Integral sustainable design (ISD) include high energy costs, energy-sharing mechanisms, and health and safety concerns. Barriers include high upfront investment costs, lack of knowledge, limited skills, and expensive building materials. The study develops a four-quadrant integrated framework for indoor environmental energy sustainability in student housing in Ghana, emphasizing the interaction between sustainable design and behavioural control concepts. The study offers theoretical insights and practical strategies for stakeholders, advocating for stronger regulatory enforcement and awareness initiatives to advance sustainable student housing (SSH) development in Ghana. Based on this study, four (4) DHET accredited journal papers, one (1) peer-reviewed book chapter and two (2) conference papers were published.

Supervisor Dr IC Anugwo
Co-Supervisors Prof VN Okorie and Prof F Simpeh

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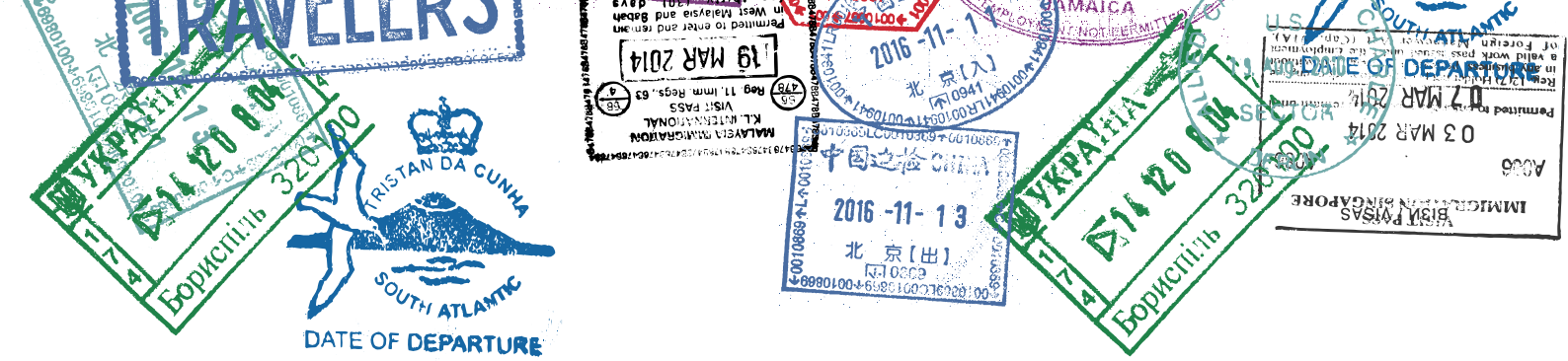

MHLONGO Scelo

Title of Thesis

A feasibility study for the development of an automation tender processes: "A Case of KwaZulu-Natal (KZN) Department of Public Works"

Summary

The delivery of Construction (Building) Projects have been associated with unethical professional practices and heave resulted in adverse outcomes. These outcomes have led to unsustainable growth of the industry at the Kwazulu-Natal province of South Africa. The associated unethical practices range from corruption, political influences in the tendering and award of contracts and unhealthy professional practices. The standard operation procedure provides an organized foundation for the organization's infrastructure supply and maintenance that could easily be compromised. This framework, which is broken down into phases, includes processes, methods, and procedures that are methodical, regulated, consistent, unified, and readily auditable. This study aims to investigate factors that militate against tendering processes, with the view of developing an automation system of tendering processes at the KwaZulu-Natal (KZN) Department of Public Works (DPW), South Africa (SA) with a view to eliminate unsustainable practices in the delivery of projects. The sample size consists of architects (50), quantity surveyors (50), contractors (100) and construction managers (100) that were selected using the convenient sampling technique due to the small size of the population. The data analysis was conducted using descriptive statistics. Findings of the study reveal corruption, political and unethical practices as the factors causing poor tendering process at the KZN DPW. These ultimately adversely impact on time and cost leading to increases. Based on these, the study developed an app to automate the processes of tendering at the KZN DPW, SA. The study also found that benefit accrues from automated tendering systems. These are reduction in corruption, affords transparency, the elimination of paperwork and paper. The study recommends the adoption of the app developed for tendering practices for the procurement of projects at KZN DPW, SA.

Supervisor Prof AO Aiyetan

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Degree of Doctor of Engineering

AJAYI Ayodele Abraham

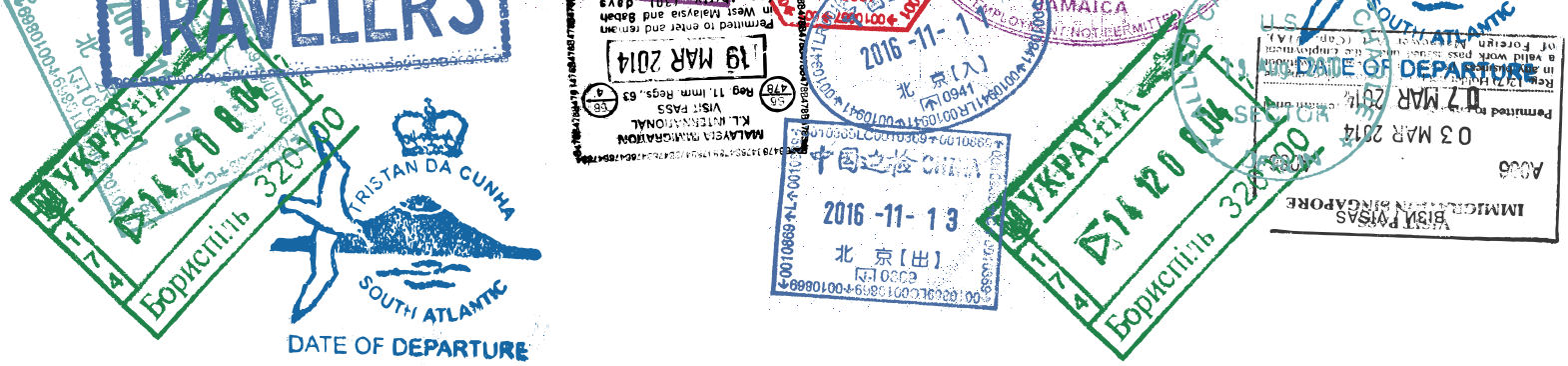
Title of Thesis

Experiential and numerical investigation of Epoxy-Based Foam composite for Buoyancy Application

Summary

In the recent past, marine economy and engineering have gained significant attention due to their potential impact on various sectors, such as agriculture, transportation and communication. To meet the growing challenges and requirements of marine based industries, materials and structures play an important role in bridging these gaps. Especially, the development of light weight composite and panel structures are vital in these applications. This research study focusses on the development of lightweight, high strength-to-weight ratio and buoyant composite foam panels. The foam based composite panels were developed using banana fibre reinforced epoxy polymer as face sheets and hollow glass microspheres (HGM) hybridized with Nano clay filled epoxy polymer as core sandwich material. The banana fibres were mercerized to obtain improved thermo-mechanical properties. The outcome of the study shows that a natural fibre-based foam composite panel can be developed which can provide improved thermo-mechanical, light weight, high durable and buoyant properties, with potential application is marine structures and transportation industries. This research work forms a part of the project work which was jointly funded by NRF South Africa and DST India based on bilateral research collaboration. This work resulted in the publication of four DHET accredited journal articles, one peer-reviewed book chapter and presentation at one conference.

Supervisor Prof TP Mohan
Co-Supervisor Prof K Kanny



AKPASI Stephen Okiemute

Title of Thesis

Methanation of CO_2 over Nickel and Molybdenum Bi-metallic Catalyst System Supported on Activated Carbon

Summary

This research investigates the catalytic methanation of CO_2 over a bimetallic system of nickel (Ni) and molybdenum (Mo) supported on activated carbon (AC). The study focuses on enhancing Ni-based catalysts by optimizing Mo content to increase CO_2 conversion and methane (CH_4) selectivity. Experimental trials were conducted in a packed bed reactor under conditions ranging from 200 to 650 °C, 1 ATM pressure, and a gas hourly space velocity (GHSV) of 1200 mL h^{-1} g^{-1}.

Results show that Ni-Mo/AC catalysts with an optimized Mo concentration of 7wt% significantly enhance CO_2 conversion (> 56%) and CH_4 selectivity (> 95%), while exhibiting high stability and recyclability over multiple cycles. This research holds meaningful implications for sustainable energy, as it offers a pathway to convert waste CO_2 into usable CH_4, reducing greenhouse gas emissions. By recycling CO_2 into clean fuel, the study aligns with sustainable development goals (SDGs), contributing to climate action, energy efficiency, and the circular carbon economy.

Supervisor Prof SK Kiambi
Co-Supervisors Prof Y Isa, Dr TP Monama and Dr PT Ngema

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KHUMALO Siphesihle Mangena

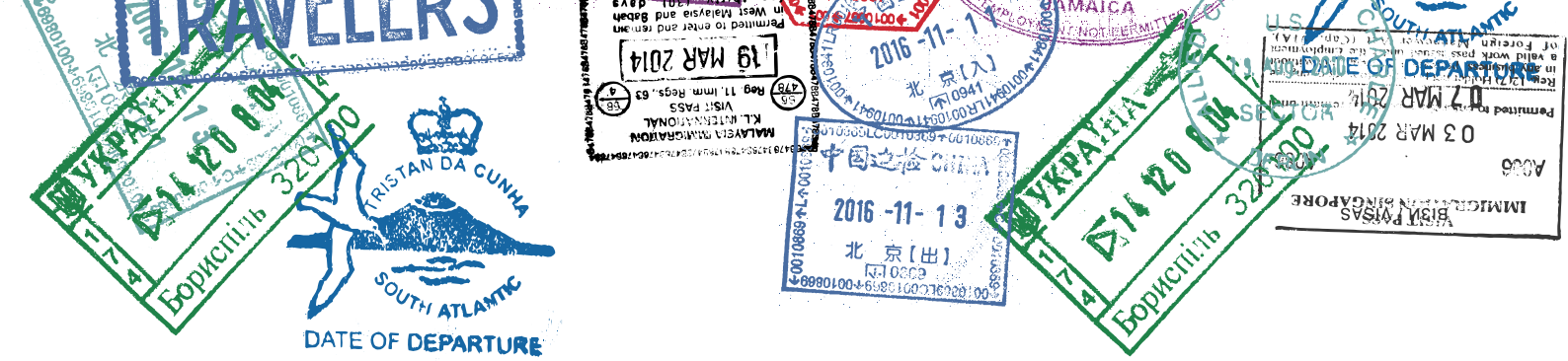
Title of Thesis

Application of chitosan-carbon nanotube hydrogel composite in the removal of antibiotic compounds and perfluoroalkyl substances from aqueous solutions

Summary

The environmental occurrence of antibiotics and perfluoroalkyl acids, particularly in potable water sources, is evidence that current wastewater treatment plants cannot completely eradicate these emerging contaminants of environmental concern. Therefore, the study investigated the treatment efficiency of chitosan-carbon nanotube hydrogel beads composite for the removal of antibiotics, viz., amoxicillin, ciprofloxacin, and sulfamethoxazole, as well as perfluoroalkyl acids, viz., perfluorooctanoic acid and perfluoro octane sulfonic acid, from synthetic aqueous solutions. The scope of the study included elucidating the adsorption kinetics, isotherms, thermodynamic parameters, and breakthrough curves for the uptake of the model antibiotics and perfluoroalkyl acids on the synthesized hydrogel beads. Moreover, Monte Carlo simulations were performed to elucidate the interaction of antibiotics and perfluoroalkyl acids with polyethylene and polypropylene relative to water as the first case. Based on the results obtained, it was concluded that the synthesized hydrogel beads composite had the potential to be applied as adsorbents for the removal of antibiotics and perfluoroalkyl acids from aqueous solutions. Furthermore, the simulation results obtained suggest that Monte Carlo simulations in Material Studio can be used as an effective tool in elucidating the interaction between antibiotics and perfluoroalkyl acids with microplastics relative to water as co-existing contaminants. This work has been presented at 2 international conferences (viz. in the United Kingdom in London and France in Paris) and 1 national conference in Johannesburg. To date, the study has produced 6 peer-reviewed journal articles.

Supervisor Prof S Rathilal
Co-Supervisor Prof BF Bakare



KUKWA Donald Tyoker

Title of Thesis

Microalgae growth in industrial wastewater for the production of hydrocarbons

Summary

Microalgae have demonstrated unique abilities to photosynthesise the conversion of biodegradable organic materials and inorganic carbon to value-added biomass. Dissolved nitrogen and reactive phosphate in the cultivation medium enhance biomass production and lipid productivity. The study focused at producing hydrocarbon and hydrocarbon derivatives in the course of providing microalgae with nutrient-enhanced brewery wastewater. A novel airlift-raceway photobioreactor was used to cultivate a consortium of microalgae and the microalga, Scenedesmus sp. with enhanced hydrodynamics. The study explored the use of light emission diodes (LEDs) and sparged CO2 gas. The microalgae biomass was freeze-dried, analyzed using SEM, and the lipid was extracted using a Soxhlet technique. The morphology of the extracted biomass was also analyzed. The composition of the microalgae oil was also analyzed using GC-MS. The study found that brewery wastewater (BWW) was enriched through the oxidation pond, raising the influent NO3--N, PO43-, BOD, and COD levels. The microalgae consortium, including Scenedesmus sp., showed the presence of saturated, monounsaturated, and polyunsaturated fatty acids in their oil extracts, along with isolated C4 and C8-C38 hydrocarbons and hydrocarbon derivatives. The transesterification step, a useful process for producing biodiesel and other useful bio-products, was successfully by-passed to achieve biodiesel-grade microalgae oil through the improved and enhanced hydrodynamics sustainably using the novel airlift-raceway photobioreactor. This outcome constituted the major contribution to the field of biotechnology.

Supervisor Prof M Chetty

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SHEZI Manqoba

Title of Thesis

Thermochemical Conversion of Lignocellulosic Biomass into Biofuels and Petrochemicals

Summary

The global depletion of fossil fuels and growing environmental concerns have accelerated the search for sustainable energy alternatives. Biomass-derived bio-oil has emerged as a promising renewable resource for energy production, chemical synthesis, and fuel applications. However, crude bio-oil faces significant challenges including high acidity, low thermal stability, excessive oxygen content, and corrosive properties that hinder its direct use in existing energy infrastructures. These limitations necessitate advanced refining techniques to improve bio-oil's compatibility with industrial systems. My research focused on enhancing the properties of bio-oil's organic phase to address these barriers. Through catalytic pyrolysis upgrading, and solvent stabilization processes, I investigated strategies to reduce oxygen content, improve viscosity, and increase energy content. The results demonstrated over 80 % reduction in moisture content, and enhanced energy density through optimized catalytic treatments. These improvements align bio-oil closer to conventional fuel standards, facilitating its integration into refineries and engines while mitigating storage and transportation challenges. This work contributes to the broader transition toward renewable energy by offering practical pathways to upgrade bio-oil efficiently. By bridging the gap between biomass potential and industrial applicability, my findings support both environmental sustainability and energy security. I extend my deepest gratitude to my advisors, colleagues, and family for their unwavering support throughout this journey. As we step into a future demanding innovative energy solution, I hope this research inspires further advancements in sustainable fuel technologies.

Supervisor Prof SK Kiambi

Co-Supervisor Prof Y Isa

NTOMBELA Mlungisi Eric

Title of Thesis

Optimal placement of large-scale electric vehicles penetration and renewable energy distributed generators in power system to enhance power quality

Summary

This research explored the challenges of integrating Electric Vehicles (EVs) and Renewable Energy Distributed Generators (REDGs)—such as solar PV and wind turbines—into modern power distribution systems. While these technologies support clean energy objectives, their uncoordinated deployment can cause voltage instability, power losses, and reverse power flows, which threaten both utility operations and end-user reliability. To solve these issues, the study introduces a Hybrid Genetic Algorithm with Improved Particle Swarm Optimization (HGAIPSO) that optimally coordinates EV charging/discharging and REDG control. The approach aims to enhance voltage stability, reduce power losses, and lower system costs by optimizing the placement and size of EV charging stations. The methodology was tested in three phases using MATLAB. First, on the IEEE 30-bus system, EVs were considered only as loads, and the HGAIPSO showed significant improvements—cutting power losses by up to 42.94% and boosting voltage profiles. The second phase, using the more complex IEEE 118 bus system, included EVs in both load (G2V) and generation (V2G) modes along with REDGs. Results showed even better system efficiency and cost savings. The final phase compared HGAIPSO's performance with traditional optimization methods, proving it to be faster and more accurate, especially in complex networks. The findings have been validated through simulations and shared at local and international conferences. Several journal articles were also published. Overall, the study provides an effective technical solution for smarter, costefficient integration of EVs and renewable energy into the power grid.

Supervisor Prof M Kabeya
Co-Supervisor Prof K Moloi

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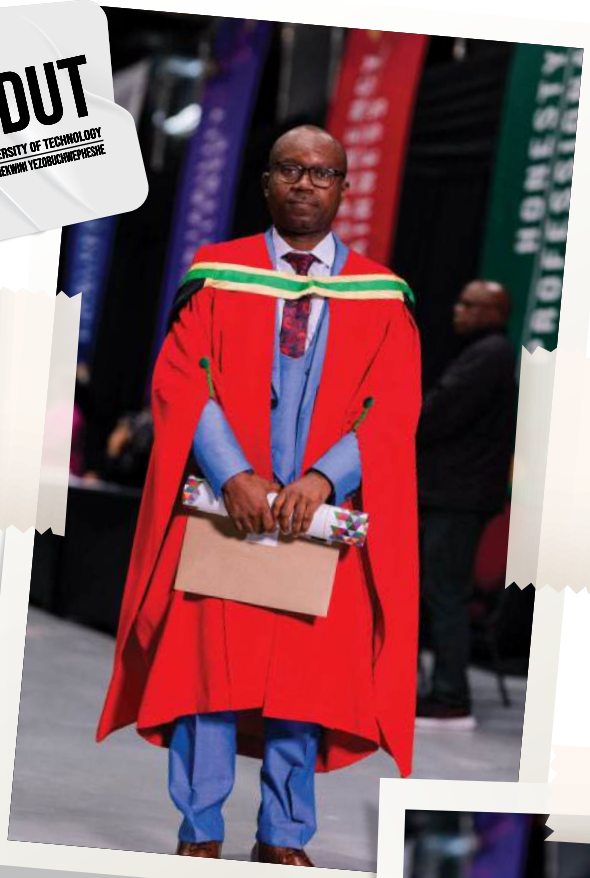

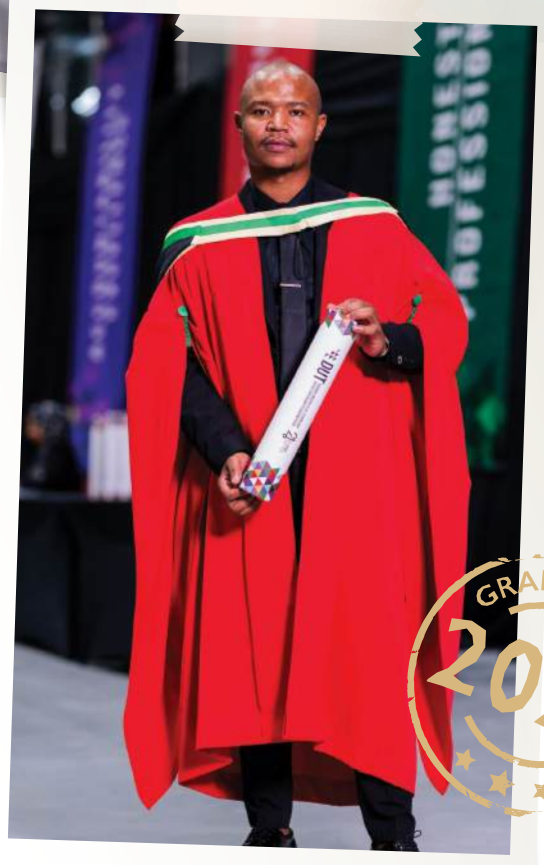

GRADUATION 2025

Asande Wilson Story

Cum laude and a Dean's Merit Award: Asande Wilson Buthelezi's Outstanding Honours Degree

The Durban University of Technology, Faculty of Engineering and the Built Environment is proud of Asande Wilson Buthelezi, 21, for completing his Honours Degree in Mechanical Engineering, with *Cum laude* and a Dean's Merit Award.

"Even though I had worked to graduate with *Cum laude* from the start, I was never aware that I could be the top achiever for the Mechanical Engineering honours group and have the pleasure of receiving the prestige dean's merit award," he said.

According to Asande, one of the biggest challenges he faced was finding balance. "Balancing my studies while working as a Mechanical Engineering Testing Technician at DUT," he says. "Managing academic responsibilities alongside professional work was demanding, but it provided me with invaluable lessons".

Asande overcame the difficulties, and they taught him how to strike a balance between his personal life, work, and studies.

"It taught me how to balance work and study effectively and allowed me to apply the theoretical knowledge from my degree to real-world problems".

Looking ahead, Asande aims to pursue a master's in engineering, specializing in the reliability and maintenance of mechanical engineering. "Beyond that, I also aim to complete an MBA to strengthen my leadership and business acumen".

Graduating with *Cum laude* with the Dean's Merit Award is not just a moment of celebration for Asande, but a testament to the power of hard work, resilience, and having a clear goal.

For students pursuing the same career in Mechanical Engineering, Asande advice: "I hope my journey inspires others to set ambitious goals, remain focused even when the path is difficult, and surround themselves with people who uplift and believe in their potential".

Written by Nontobeko.

DUT AUTUMN GRADUATION 2025

Asande Wilson

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Bhekinkosi Mgobhozi Story

Commitment and Hard Work: A Lasting Impact Graduating with *Cum laude* Master's Graduate Bhekinkosi Mgobhozi

Bhekinkosi Mgobhozi academic journey began in the urban areas of Stanger, KwaZulu-Natal. Growing up from a young age he was always interested in technology and innovation. This passion for learning led him to earn a Maters in Engineering Program.

"When I decided to pursue my master's in engineering, I knew it would be demanding but the journey was rewarding and enabled me to grow academically and professionally," he added.

According to Bhekinkosi Mgobhozi, his time at DUT and within the faculty of engineering and the built environment shaped his academic and professional career. The academic environment encouraged him to think critically and be innovative, increasing his knowledge and insights into academics preparing him well for future opportunities.

"The challenges I faced during my master's degree were financial constraints and balancing research with personal time, but I managed to set goals and broke big tasks into small parts and used effective time management," he said.

The 35-year-old graduates research key investigates a Novel Modulation approach called Index Modulation which can help meet the growing demands of faster speeds, energy efficiency, and spectral efficiency in future wireless networks.

He explained that Index Modulation can overcome challenges faced by the current wireless networks. "The research provides both theoretical and practical aspects through simulations, analysis, and comparative evaluations. Index Modulation is a green technology; this aligns with global push towards a sustainable and environmentally friendly system. Additionally, it lays the foundation for future research that will assist this novel technique adapt to various wireless environments," he said.

Looking ahead, Mgobhozi's goal is to be a researcher and work on cutting-edge projects that push the boundaries of technology and create solutions that will change lives. Driven by desire to learn, develop, and have a positive influence, Mgobhozi remains committed to excellence in all his academic and professional pursuits. His Cum laude graduation is a shining testament to his tireless effort, unrelenting dedication, and unshakeable pursuit of excellence.

He extended his heartfelt gratitude to several individuals for their unwavering support throughout his thesis. He acknowledged his supervisor for providing guidance and appreciated his family and friends for supporting him throughout this journey.

By Nontobeko Ngcobo

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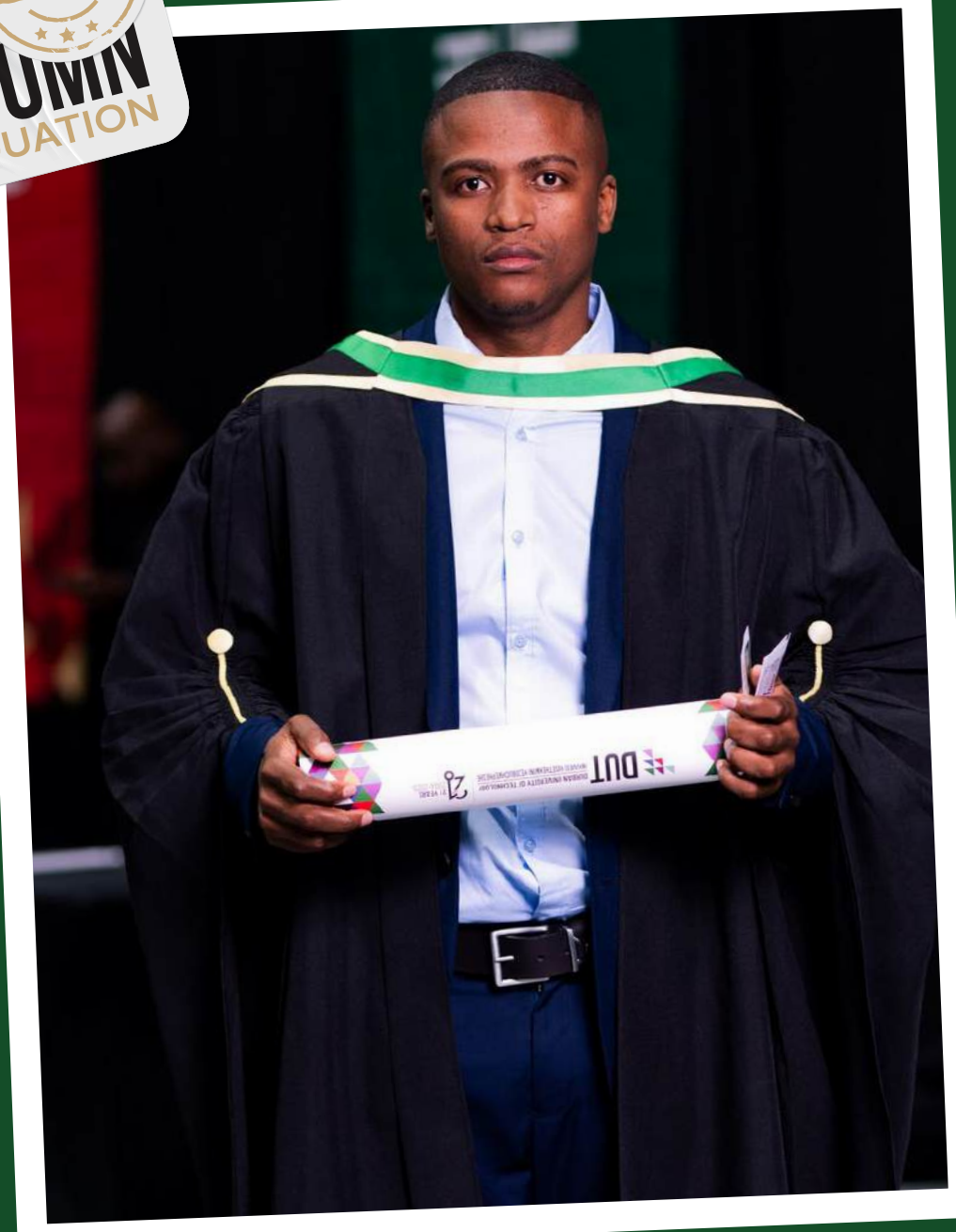

Bhekinkosi Mgobhozi

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Bongani Zikhali Story

Empowering Future Engineers: The Journey of Sifiso Bongani Zikhali

"My journey in electrical engineering has been driven by passion, purpose, and perseverance," says Sifiso Bongani Zikhali, a Lab Technician in the Department of Electrical Power Engineering at Durban University of Technology (DUT). Born in the coastal town of Stanger, Sifiso's fascination with electrical power systems began early on at Stanger South Secondary School. His academic path led him to DUT, where he completed a National Diploma and a BTech in Electrical Engineering (Heavy Current), followed by his recent graduation with a BTech in Engineering Technology Honours Degree in Power Engineering. He is currently pursuing a master's degree in the same field.

With over 12 years of combined industrial and academic experience, Sifiso's professional journey has spanned critical sectors. He began his career at GICCO Natal and went on to Powertech Quad-Pro, where he was part of teams responsible for the construction, installation, and commissioning of electrical substations ranging from 132 kV to 11 kV. "My work in high-voltage environments gave me a solid foundation in real-world engineering practices, from switch-room upgrades to ensuring compliance with safety standards," he reflects.

Sifiso's expertise spans both technical and educational spheres. Transitioning into academia, he lectured at Icesa, Damelin, and Africa College for four years before taking up a facilitation role at uMgungundlovu TVET College. His focus was on delivering technical training and mentoring students, always aiming to bridge the gap between classroom learning and industry realities. "Education is about more than just theory; it's about preparing students to solve the complex problems they'll face in the workplace," he says.

Now at DUT, he plays a key role in supporting laboratory-based teaching and learning within the Electrical Power Engineering department. He works closely with students and lecturers to ensure safe, efficient, and effective lab sessions. "I believe my contribution lies in helping students understand not just how things work, but why they work. That's where true learning happens," he shares.

Sifiso's pursuit of an Honours degree was inspired by the rapid evolution of the electrical engineering industry, especially in power systems, renewable energy, and smart grid technologies. "I wanted to remain at the forefront of these changes," he explains. "More than anything, I wanted to bridge the difference between practical experience and academic research."

Describing his Honours journey in three words as, challenging, transformative, and empowering, Sifiso is candid about the demands and rewards of the programme. "It pushed me beyond my comfort zone. Balancing coursework, research, and work responsibilities took resilience," he admits. "But it changed how I approach problems and gave me a newfound confidence in my abilities."

Among his proudest moments during his Honours year was presenting a business proposal under the module called Innovation Management and Entrepreneurship, which aimed to offer extra mathematics support to high school learners. "It was

fulfilling to work on something that could impact communities beyond campus," he notes. Equally rewarding was completing his research project on fault detection and classification in medium voltage underground cables using Artificial Neural Networks (ANNs) and MATLAB. "It was the first time I had worked with MATLAB, and applying theory to solve a real-world issue was incredibly satisfying."

Sifiso's academic journey is far from over. "I've already taken the next step by enrolling in a master's programme in Power Engineering," he says. His plans include professional registration with ECSA as an Engineer Technologist, attending industry conferences, and contributing to research that addresses challenges in energy distribution and protection. He also hopes to pursue a PhD and step into a leadership role in academia or industry, where he can mentor the next generation of engineers.

Reflecting on his time at DUT and within the Faculty of Engineering and the Built Environment, Sifiso describes it as life changing. "It taught me to view engineering not just as a job, but as a tool to improve society. The faculty's diversity and practical focus prepared me to make a real impact in the field." He credits the institution with broadening his outlook, inspiring him to contribute to national development and technological advancement.

To students still working toward their qualifications, Sifiso offers heartfelt encouragement: "Keep going. The journey won't be easy, but growth only comes from pushing through challenges. Stay focused, ask for help when you need it, and never stop believing in yourself."

His gratitude to those who supported him is deeply felt. "To my OAC family, my siblings, Dad, supervisors, and mentors thank you from the bottom of my heart. Your support kept me going when I wanted to give up. This achievement belongs to all of us."

Graduating with an Honours degree is a moment of pride and reflection for Sifiso. "It's more than a certificate; it's proof that dedication and perseverance lead to success. It inspires me to keep reaching higher and to use what I've learned to make a difference in the world." He said.

by Asanda Dzelwa

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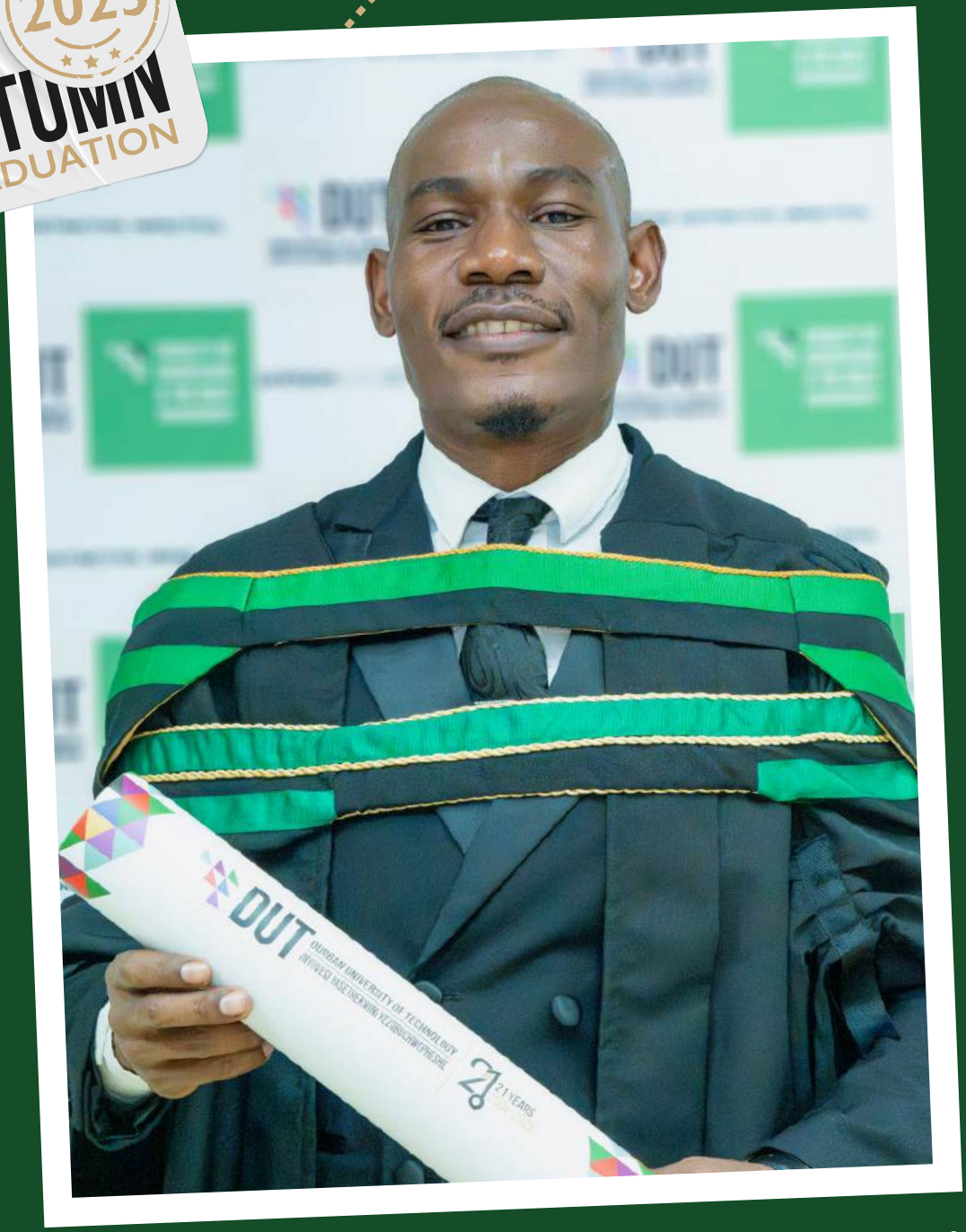


Bongani Zikhali

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION


DUT

Bradley Govindasamy Story

Bradley Govindasamy: Bachelor of Engineering Technology *(Cum laude)*

Bradley Govindasamy is beyond excited to be graduating with a Bachelor of Engineering Technology at the Durban University of Technology (DUT) 2025 Autumn graduation, taking place at Olive Convention Centre on 27 May 2025.

"Graduating with my degree means so much more than just completing a qualification. It represents years of dedication, personal growth, and sacrifice- not only from myself, but also from my family who have supported me through every challenge," he said.

Govindasamy from Stanger academic excellence has made the Faculty of Engineering and the Built Environment and family proud of his academic excellence. Giving a brief background on what inspired him to pursue being a Mechanical Engineer. He claimed that from a young age, he had always found the workings of things fascinating. He would frequently disassemble his toys in an attempt to understand their construction. This fascination developed into a passion for engineering as he grew older. His innate aptitude for mathematics and physical science in school as a child led him to pursue a career in Mechanical Engineering.

Reflecting on his journey, he emphasized the importance of consistency and time management in achieving his goals. "Engineering is demanding, but consistency and time management are key. If you stay committed and keep working consistently every day, you'll be amazed at how far you can come," he said.

He extended his gratitude to several people. "To my family, friends, and lecturers- thank you sincerely for your support throughout this journey. Your guidance, encouragement, and belief in me has made all the difference. I truly wouldn't have reached this milestone without you. Every word of encouragement and every small act of support," he said.

Bradley Govindasamy's journey through university has been marked by dedication and achieving remarkable success in the field of Mechanical Engineering.

"One of the most memorable moments of my journey at DUT was receiving the Best Performing Student Award from the Mechanical Engineering Department in both 2023 and 2024. Being recognized at that level was incredibly humbling and rewarding," he explained.

Graduating with *Cum laude* fills Govindasamy with immense pride and marks a milestone of sacrifice, dedication and the unwavering support of his family and friends.

"Graduating with *Cum laude* in a Bachelor of Engineering Technology Degree is a moment of immense pride and fulfilment for me. It represents far more than just an academic achievement. It reflects dedication, perseverance, and sacrifices," he said.

Moving forward Govindasamy strongly believes that he has laid a strong foundation for his future in the engineering field.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Bradley Govindasamy

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Cebo Nhlanhla Mbatha Story

Cebo Mbatha Graduating with *Cum laude* and Dean's Merit Bachelor of Engineering Technology Honours in Electronic Engineering

The Faculty of Engineering and the Built Environment student, Cebo Mbatha from KwaMashu, Durban, graduates *Cum laude* and obtains Deans Merit Award.

Well, it's true that university life can be challenging, Mbatha's commitment is a result of his hard work from the start. He counseled students to strive for excellence in all that they do. "Success is very possible if you stay focused and passionate. Don't be afraid to ask for help or help others; it strengthens your understanding," he said.

He described his academic journey as challenging because the workload demanded a lot of discipline and resilience, but he strived for the best. Looking ahead, Cebo envisions making significant contributions to the Electronic Engineering field. With passion for Electronics, programming and solving real-world problems through innovations, he continues to pursue his master's degree at DUT. Mbatha aims to complete his master's degree and plans to continue towards a PhD. "My passion for research is strong, and I see myself contributing meaningfully to technological advancement while mentoring others along the way," he said.

He explained that through consistent dedication, hard work, and commitment, he was able to achieve this esteemed award.

"Graduating *Cum laude* alongside the Dean's Merit Award is an incredibly humbling and rewarding experience. It proved that all the long nights, extra preparation, and perseverance truly paid off. In a demanding and often underestimated field like Electronic Engineering, these achievements reflect not only academic excellence but also a passion for learning and growth. They serve as a reminder that despite the challenges, aiming high and staying consistent truly pays off," he stated.

He extended his heartfelt gratitude to his lecturers and supervisors for providing guidance, his mother for unwavering love and support, and to his friends and peers for shared knowledge and motivation.

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025

Cebo Mbatha

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Kershan Moodley Story

Kershan Moodley Obtains Honours Degree with *Cum laude* and Dean's Merit Award

Born in Durban, KwaZulu-Natal, Kershan Moodley is a young student who has become a shining example of academic achievement and perseverance.

Kershan graduated *Cum laude* with the Dean's Merit Award marking a significant milestone in his academic journey. One of his proud moments during his academic journey was receiving his final examination results.

"I knew I had successfully completed my honours degree and would be graduating with distinctions for the second time. It was the culmination of four years of intense effort, sacrifice, and personal growth," he said.

Kershan Moodley inspiration for pursuing honours degree began after completing his undergraduate degree in 2023, where he embarked on a quest for knowledge that would shape his future endeavors. Equipped with an insatiable curiosity and an unwavering determination to achieve, he approached his honours degree with enthusiasm, giving him the opportunity to develop his technical skills and tackle more advanced concepts.

His journey through university was not without its challenges. From the demanding work assignments to the rigorous work responsibilities, Kershan faced obstacles head-on, embracing each challenge as an opportunity for growth.

"The journey was fulfilling because, despite the intensity, I could see the tangible rewards of my hard work reflected in my results, which gave me a strong sense of accomplishment," he said.

His dedication and hard work culminated in the prestigious honour of graduating *Cum laude* with the Dean's Merit Award is a testament to his exceptional academic prowess and unwavering dedication to excellence.

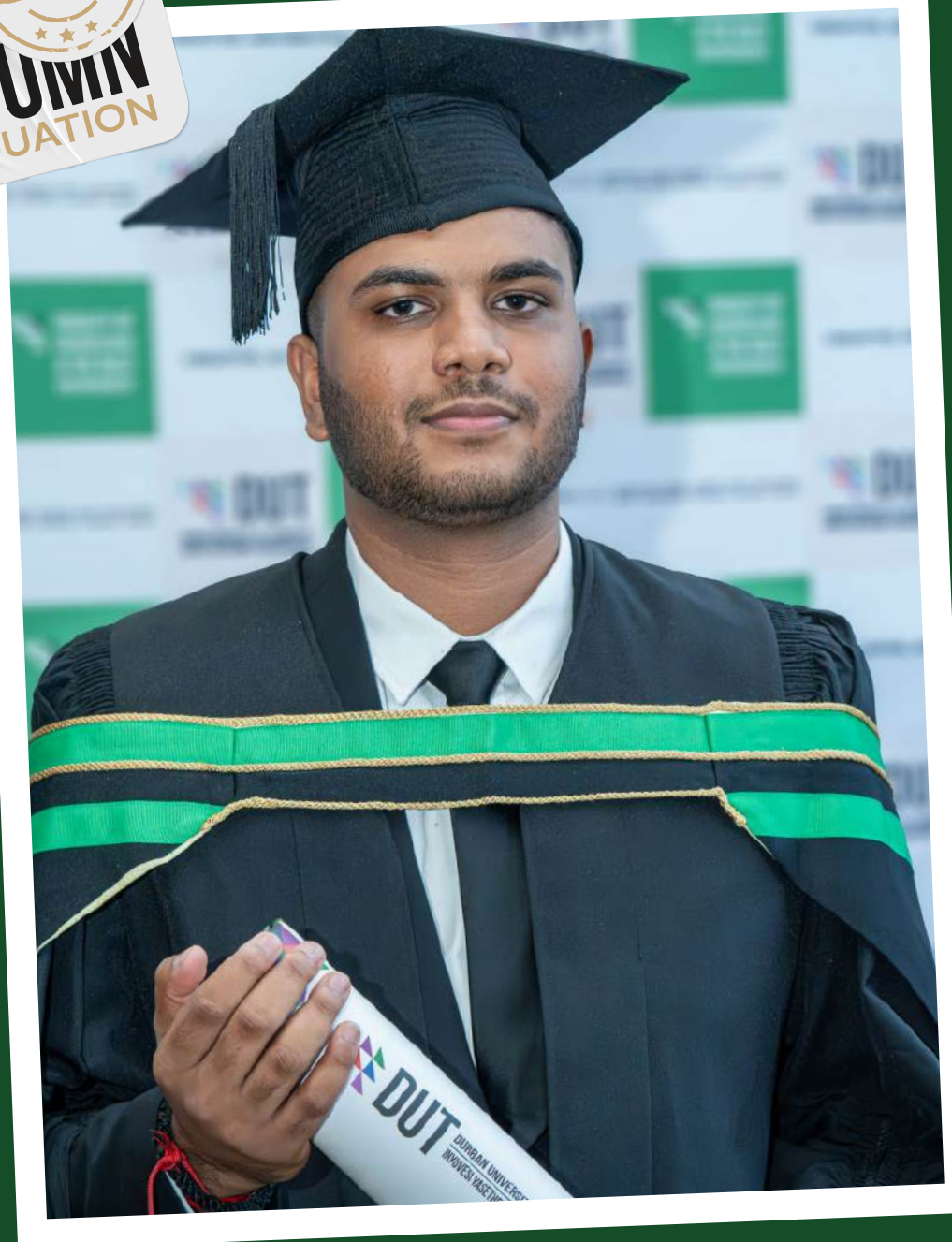
Kershan's ambitions stretch beyond academia, driven by vision to revolutionize Electrical Power Engineering, he aspires to improve and stabilize power systems in South Africa. Currently pursuing his master's degree, his research focuses on renewable energy, electrical machines, and control systems.

As Kershan Moodley reflects on his journey, he remains grateful for the support of his loved ones. Graduating *Cum laude* with the Dean's Merit Award fills him with immense pride as this marks a milestone of his hard work and dedication.

"Completing my honours degree in Electrical Power Engineering and graduating *Cum laude* with the Dean's Merit Award is both a tremendous honour and a deeply humbling experience. I was fortunate to receive the same recognition during my undergraduate BEng Tech studies in Power Engineering, an achievement that came as a surprise at the time. This accomplishment is a powerful reminder that every late night, every challenge, and every sacrifice was worth it" he said.

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025



Kershan K Moodley

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Kholekile Mtshiza Story

Achieving Excellence: Kholekile Mtshiza's Master's Degree Success

Kholekile Mtshiza hailing from a small town, Mount Ayliff (Dutyini Location), shares her remarkable journey of resilience and achievement from carrying a new life to excelling academically.

At the beginning of her journey, she faced a daunting challenge of uncertainty and being overwhelmed. Rather than giving in to the emotion, she took the initiative and investigated her field of study, and things began to make sense.

Kholekile's dedication extended beyond academics. One of the most key moments of her journey was being able to author 4 conference papers.

Moving forward, Kholekile remains focused on her goals, her thirst for knowledge and commitment to continuous improvement propels her forward.

"I would like to continue with academic studies and enroll for PhD. I am looking forward to more research opportunities and later consider a career in academia, teaching and learning through knowledge with students," she said.

When she considers her accomplishments, she is a brilliant example of tenacity and overcoming hardship.

"Achieving *Cum laude* in my master's degree is a significant accomplishment, and I'm proud of the effort and perseverance that went into it," she stated.

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025

Kholekile Mtshiza

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Lindelani Mkhize Story

From Technician to Trailblazer: Lindelani Mkhize's Journey in Electrical Power Engineering

Lindelani Mkhize, a Technician in the Department of Electrical Power Engineering at the Durban University of Technology (DUT), has turned his passion for innovation and education into a powerful story of growth and inspiration.

Originally from the Dumisa area of Umzinto in KwaZulu-Natal, Mkhize supports laboratory work, maintains technical equipment, and assists students during practical sessions. His work spans across key areas such as electrical projects, fundamental principles, and renewable energy technologies. However, his contribution to the department goes far beyond his job description.

"I've always been passionate about hands-on learning and innovation," says Mkhize. "One of my favourite parts of the job is contributing to student projects and departmental exhibitions, especially during events like Open Week."

After completing his BTech in Electrical Engineering, Mkhize felt a strong desire to expand his knowledge base. While his technical experience had given him practical insight, he realized the value of deeper theoretical understanding and analytical skills.

"Pursuing a BEng Tech Honours degree was a natural next step," he explains. "It allowed me to bridge the gap between theory and practice and prepared me for more advanced roles in design, research, and technical leadership."

Driven by the evolving demands of the engineering field and the desire to make meaningful contributions to sustainable energy solutions, Mkhize embraced the challenges of postgraduate study.

"If I could describe my Honours journey in three words, they would be: Challenging, Transformative, and Empowering," he reflects. Challenging, because the journey tested his discipline and resilience through complex theory and independent research. Transformative, for the way it reshaped his thinking and approach to solving engineering problems. Empowering, because completing the degree gave him the confidence to take on more responsibility and further academic pursuits.

His proudest moment during his Honours year was completing and presenting his final research project, a mini hydro power plant. The project combined simulation and hands-on implementation, including the design of a working Pelton turbine and the analysis of critical parameters like jet velocity, bucket efficiency, and power output.

"It was a defining experience. It brought together everything I had learned, and it showed me how theory can drive real-world solutions."

Now registered for a Master's in Electrical Power Engineering, Mkhize is aiming even higher. He is particularly focused on renewable energy and power systems, and is passionate about conducting research that can make a real impact.

"I aspire to become a lecturer," he says. "Sharing knowledge and guiding future engineers is one of the best ways I can give back just as others supported and inspired me on my journey."

Reflecting on his time at DUT and in the Faculty of Engineering and the Built Environment (EBE), Mkhize credits the institution for shaping not just his career, but his outlook on life.

"Being part of a diverse, innovation-driven environment helped me grow technically and personally. I saw first-hand how engineering can drive sustainable community development," he says.

"The mini hydro project was more than a requirement, it was a glimpse into how engineers can transform lives with practical, sustainable solutions."

To students still navigating their academic paths, Mkhize offers heartfelt advice: "Stay focused, stay patient, and trust the process. There will be tough moments, deadlines, failed circuits, and confusing theory—but every challenge builds you. Don't hesitate to ask for help or collaborate. One day, you'll look back and be proud of how far you've come."

He also extends deep gratitude to those who supported him throughout his journey, "To my family, thank you for grounding me and reminding me why I started. To my friends and students, thank you for your support and shared growth. To my academic supervisors and mentors, your guidance shaped who I am today. This achievement isn't mine alone; it belongs to all of us."

By Asanda Dzelwa

DUT AUTUMN GRADUATION 2025

Lindelani Mkhize

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION


DUT
DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE
21 YEARS
2004-2025

Dr Manqoba Shezi Story

PhD MILESTONE: Manqoba Shezi's Dedication Pays Off

The journey of Dr. Manqoba Shezi stands as a powerful testament to the strength of perseverance, dedication, and unwavering determination in achieving excellence within the field of Chemical Engineering. Raised in the town of Ladysmith, situated northwest of Durban in South Africa, Dr. Shezi's path reflects both resilience and an enduring commitment to academic and professional success.

In the middle of academic hardship, Dr Shezi encountered a range of significant challenges throughout his journey, including low motivation and procrastination, where the sheer scale of the project felt overwhelming, which led him to lose sight of the initial enthusiasm a few times. Yet, armed with dedication, Dr Shezi overcame these obstacles with a strong support network from other fellow PhD students and friends.

His research focused on leveraging invasive species as a sustainable feedstock for the production of biofuels and valuable chemicals. His integrated research has culminated in four peer-reviewed journal publications, offering innovative solutions to promote environmental sustainability and advance the field of renewable resource utilization.

Grateful for the opportunities offered to him by DUT, his experience within the Faculty of Engineering and the Built Environment opened prestigious opportunities internationally, including being a USA research assistant and becoming the first student from his department to attend Auburn University in the USA. Additionally, this year Dr Shezi will be part of the panel for the Fulbright Foreign Student Program that allows students to conduct their research in the USA.

Looking ahead, Dr Shezi's vision for the future includes his short-term goals being mentoring students, while his long-term goals include attaining a professional research team.

As Dr Shezi reflects on his journey, he remains grateful and acknowledges the support of his loved ones. Their unwavering support has been instrumental in his success. Graduating with a PhD fills him with immense pride and serves as a mark for his hard work.

"Graduating with my PhD fills me with a profound mix of emotions pride in the years of relentless effort I've poured into my research, relief that I've finally reached the finish line after so many obstacles, and quite awe at how much I've grown along the way," he said.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Manqoba Shezi

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Mbalenhle Mdluli Story

Mbalenhle Bridget Mdluli Achieves Academic Excellence with Honours Degree

Mbalenhle Mdluli from Kwa-Dukuza, Stanger, attributed her academic success to keeping her head down and working hard. For her this achievement reflected on all of the hard work, sleepless nights and moments of doubt, effort, and dedication that has propelled her along with her journey.

"One of my proud moments was successfully completing my research and receiving the Best Performing Merit Student in Electrical Machines and Drives," she said.

Her academic experience was both transformative and hard, as it developed her into a more analytical and solution-driven professional while also requiring her to balance work, studies, and research.

Her dedication to continuous learning and professional development is evident as she is currently pursuing a master's degree to further specialize in power system reliability smart grid technology, or renewable energy integration.

Mdluli specializes in high voltage (HV) substation technology and is currently employed with eThekwini Electricity as a technician. Her objective is to expand her substation design and maintenance services business.

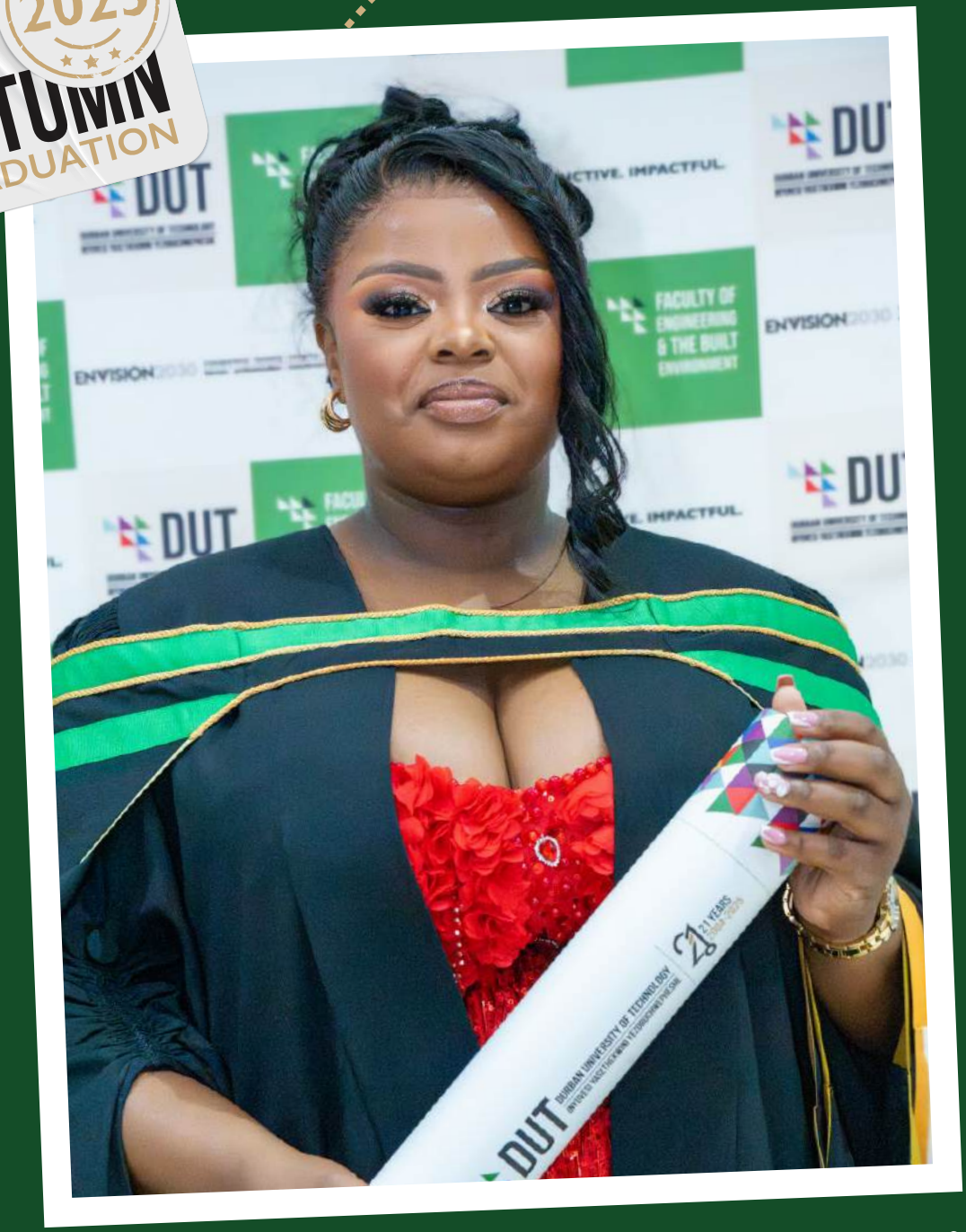
She advised students to remain dedicated and keep pushing forward, even when the workload seems overwhelming.

"Engineering is a field that requires patience, resilience, and problem-solving skills. Most importantly, believe in yourself every challenge you overcome is a step closer to success," she said.

She extended her heartfelt gratitude to her family, friends, colleagues, and academic supervisors, Prof. E Ojo and Prof. Musasa Kabeya for their unwavering support and encouragement.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025



Mbalenhle Mdluli

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Meloshnee Perumal Story

Academic Excellence: Meloshnee Perumal Graduates Honours Degree with *Cum laude* and Dean's Merit Award

Meet a rising star from Chatworth, in the heart of Durban, whose academic achievements and unwavering determination are making waves in the community.

Meloshnee Perumal graduated *Cum laude*, marking a significant milestone in her academic journey. One of her proud moments during her academic journey was completing the final dissertation paper and achieving a distinction. Also working under the guidance of Dr. Bongumenzi Mncwango helped her to successfully earn her honours degree.

Meloshnee's immediate goal is to gain as much practical experience in the field of Industrial Engineering. In the long term, she aspires to further studies, including doing a master's degree, while continuing to make strides in his professional career.

"As I build this experience, I also aim to identify a meaningful and relevant research topic that aligns with both my interests and evolving needs of the industry. This approach will not only ensure that my future master's studies are purposeful but also that they contribute to real-world solutions," she said.

Her journey has not been without its challenges. Like many students, she faced balancing work with academics, personal responsibilities nearly jeopardizing her academic pursuits. However, through perseverance and dedication she overcame these challenges and continued on her career path to success.

"Despite the challenges, completing my honours with *Cum laude* and receiving Dean's Merit Award made the entire journey incredibly fulfilling," she said.

She extended her heartfelt gratitude to her family, friends, and academic advisors and everyone who supported her on this journey.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Meloshnee Perumal

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Dr. Mlungisi Eric Ntombela Story

Triumph of Dedication: A Journey of Resilience and Academic Excellence

Mlungisi Eric Ntombela's journey stands as a powerful testament to resilience, unwavering dedication, and steadfast determination in the face of adversity. He was born and raised in the rural town of Bulwer, in the Enkumba area.

Despite the challenges, Dr. Ntombela's aptitude for academics was evident from a young age. He performed exceptionally well in high school at Mandlesizwe High School, placing him in the top 10 of his class for his grade 12 results.

"The circumstances at home were dire, and I was aware of that, following my matriculation, I would lack financial support for university until my high school teacher, Ms. Nete, intervened to assist me," he said.

His academic journey culminated in PhD in Electrical Power Engineering at the Durban University of Technology, his research thesis focused on 'Optimal Placement of Large-Scale Electrical Vehicles and Distributed Generation in Power Systems to Enhance Power Quality'.

Dr. Ntombela a certified Electrical Engineer with over five years of industrial experience. Upon graduating with his master's degree in 2022, he was also studying for the Government Certificate of Competency (GCC factories).

Throughout his PhD journey, Mlungisi Eric Ntombela drew inspiration from his grandmother, MaDlamini Ntombela, whose unwavering belief in his potential from a young age served as a powerful source of motivation. His academic pursuit has been deeply rooted in a desire to uplift his family's circumstances and honour her enduring support. Additionally, driven by a commitment to transformation and inclusivity, he aspired to contribute to the representation of Black South Africans in the field of engineering, his achievement represents both a personal milestone and a broader step toward greater diversity in the discipline.

Advising students on the same journey he walked, he remarked "I wish to highlight that I obtained my PhD in merely one year, necessitating a minimum of two registrations and the submission of my thesis I had to wait. It is achievable" he said.

Looking ahead, Dr. Ntombela's short-term objective is to continue authoring journal articles, conference papers, and book chapters. Long term objective is to further his studies by pursuing a Master of Business Administration (MBA) programme.

Dr. Ntombela recognizes the support of his loved ones and is grateful for the opportunities afforded to him as he reflects back on his journey. He faces the future with humility and resolve, ready to leave a lasting impact on education, industry, and society as a whole.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Mlungisi Ntombela

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Mokgapi Terrence Mokete Story

From Limpopo to *Cum laude*: Mokgapi Mokete's Story of Dedication and Growth

Mokgapi Terrence Mokete, 33, originally from Sekhukhune in Limpopo, is a proud graduate who earned his National Diploma and Advanced Diploma in Pulp and Paper Technology with *Cum laude* from the Durban University of Technology, Faculty of Engineering and the Built Environment.

Now living in Benoni, Gauteng, due to work, Mokgapi holds both a National Diploma and an Advanced Diploma in Chemical Engineering. He currently works as a Key Accounts Sales Representative for Solenis Technologies South Africa, a company that supplies chemicals to the pulp and paper industry.

Mokgapi began his studies at DUT in 2023. Balancing his demanding job and academic responsibilities was no easy task. "It was a tough journey," he says. "I had to juggle work and studying, prioritising deadlines at work and school. I had many sleepless nights. I struggled, I adapted, and I grew."

Despite the challenges, Mokgapi made the most of the opportunity. He credits DUT's dedicated lecturers for playing a big role in his success. "I had excellent lecturers who gave me plenty of opportunities to learn and grow. The support I received helped me stay focused and motivated."

Graduating *Cum laude* was a significant achievement for Mokgapi. "It's a huge honour and a clear sign that all the hard work paid off. It's the fruit of the labour blood, sweat, and tears," he reflects.

Mokgapi also shares a deep connection with DUT's values and principles. "I live by the DUT values," he says. "Accountability, respect, honesty, and integrity are important in both work and life. It's about being fair to others, staying professional, showing compassion, and always striving for excellence."

One of his biggest challenges during his studies was finding balance. "Balancing work, studies, and social life was really hard. I still haven't figured it out completely. I had to sacrifice my social life to focus on the other two," he admits.

His hard work did not go unnoticed by his loved ones. "My family was very happy for me. They congratulated me and were proud of what I had achieved."

Although Mokgapi initially planned to pursue an Honours degree in Chemical Engineering, his employer advised him to study pulp and paper technology to better understand the industry they serve. "This qualification helps me better understand my customers' challenges so I can provide them with the best possible solutions," he explains. "But I still plan to do my Honours in Chemical Engineering soon."

Looking to the future, Mokgapi aims to become a Process or Sales Engineer who develops tailored solutions for different industries. His ambition is rooted in the desire to combine technical knowledge with practical problem-solving.

For first-year students just starting their journey, Mokgapi offers heartfelt advice: "Give your best in everything you do and love what you do. That passion will help you get out of bed every day—even on days when you don't feel like it."

His story is a powerful reminder that with commitment, support, and perseverance, success is possible even when the journey gets tough.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Mokgapi Mokete

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Nompumelelo Chili Story

A Testament to Commitment and Hard Work Graduating with *Cum laude* Master's Graduate Mrs. Nompumelelo Chili

Striving for academic excellence is Mrs Nompumelelo Chili, a Technician in the Department of Electrical Power Engineering at the Durban University of Technology. She graduated Cum Laude for her Degree of Master of Engineering in Electronic and Computer Engineering at the 2025 DUT Autumn Graduation at the Olive Convention Centre in Durban on Tuesday, 27 May 2025. For Chili (38) from KwaSwayimane in Pietermaritzburg, her academic journey was driven by her deep love for learning and oddly enough, the type of pressure that comes with it. The title of her dissertation is: Performance Analysis of Precoding Schemes for Massive Multiple-Input Multiple-Output (MIMO) Systems. The study focuses on assessing the efficacy of various precoding strategies in the presence of channel inference estimation errors and explores their impact on critical performance metrics.

"Graduating Cum Laude for my Master's in Engineering was an incredible personal and professional achievement. The road was rocky, filled with lots of figuring out and sleepless nights, but I survived. This achievement was a testament to the dedication, discipline, and hard work I've consistently applied throughout my postgraduate journey, especially while managing the demands of family life, academic commitments, and my responsibilities as a technician," shared Chili.

She hopes her achievement will serve as motivation for others, especially young professionals and female students in engineering, showing that excellence is attainable through commitment and perseverance. She believes achieving Cum Laude did not only validate her academic efforts but also strengthened her credibility as a contributor to both teaching and research in the engineering field.

Chili became part of the DUT community in 2005 when she enrolled for the for the National Diploma in Electronic and Computer Engineering (Light Current). "The programme gave me a solid foundation in electronics, digital and analogue circuits, as well as technical troubleshooting. It was during this time that I developed a strong passion for hands-on work and problem-solving in engineering settings. In 2011, I furthered my studies by pursuing a Bachelor of Technology (BTech) degree in Electrical Engineering, specialising in Telecommunications. A few years later in 2018, I chose to return to DUT to pursue a Master of Engineering degree in Electrical Engineering, specialising in Wireless Communications," explained Chili. During her Master's journey, in 2023, she was appointed as a Technician, where she currently supports the academic team through laboratory setup, maintenance of electrical and renewable energy equipment, providing assistance during practical's, and ensuring health and safety compliance.

"Over time, I have also taken on broader responsibilities, including coordinating departmental events, engaging in community outreach, and contributing to innovation and entrepreneurship initiatives. My time at DUT has been both professionally and personally enriching, and I remain committed to supporting the growth and success of students, colleagues, and the department at large," she added.

Amongst the DUT values and principles, Chili resonates with integrity because she believes being honest, accountable and ethical in all her actions forms the foundation of trust, whether it's with students, colleagues, or external partners. Chili feels with integrity, respect and professionalism tends to align naturally.

Sharing a major challenged she faced in her master's journey, Chili said: "I was assigned around six different supervisors throughout my Master of Engineering studies. This created uncertainty and made it difficult to maintain direction. However, through resilience, determination, a positive mindset, and unwavering faith in God, I was able to overcome these obstacles and ultimately graduate Cum Laude."

Chili revealed that she had always been passionate about technology and problem-solving, and engineering offered the perfect combination of both. She was particularly drawn to the idea of using innovation to create practical solutions that can improve lives. She plans to further her studies as she is committed to lifelong learning and continuously improving both her technical expertise and academic knowledge.

"Advancing my studies will not only enhance my ability to contribute meaningfully to my department and students, but it will also position me to take on greater responsibilities in research, innovation, and curriculum development. Further studies will also allow me to deepen my understanding in areas I'm passionate about (wireless communications, signal processing and Energy harvesting from space), contribute to scholarly publications, and ultimately support the ENVISION2030," remarked Chili, who wants to contribute to the advancement of engineering in South Africa and beyond.

She expressed gratitude to her family, supervisor, co-supervisor, friends, and colleagues for their unwavering support and encouragement. She said they became her pillar of strength during moments she felt like giving up. She also sent appreciation to the Space Science Centre for financial support.

By Simangele Zuma

DUT AUTUMN GRADUATION 2025

Nompumelelo Chili

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Nqobile Mkhize Story

Nqobile Mkhize Obtains Her Master's Degree in Chemical Engineering with *Cum laude* and Dean's Merit Award

Nqobile Mkhize academic journey began in a smalltown in Mthwalume, South Coast of KwaZulu-Natal. After years of working in the field, she developed a strong desire for academic challenges, which ultimately prompted her to obtain a master's in engineering: chemical engineering program.

"I started here with the intention of conducting research that would facilitate my academic development, strengthen my skills, and have a significant impact," she said.

According to Nqobile Mkhize, her time at DUT and within the Faculty of Engineering and the Built Environment improved her writing skills, and presentation skills. Her professional growth and academic attributed from her supervisors, Dr. Emmanuel Kweinor Tetteh and Prof. Sudesh Rathilal.

The master's graduate research was based on researching the production of energy, in the form of biogas, from agricultural waste (fruit and vegetable) and wastewater produced from Municipal fruit and vegetable bulk market.

"Research work is difficult since it demands the student to stay updated on previous work of the same kind. I had to ensure that my research was still unique to avoid plagiarism or duplication of other studies," she said.

Advising students on the academic journey she has walked, she remarked, "Research is a collaborative effort with supervisors, but the student should constantly be aware that they are in control of their work."

Looking ahead, Mkhize's goal is to further her studies and pursue Doctoral studies in 2025 at DUT. Graduating with *Cum laude* fills Mkhize with immense pride and marks a milestone of sacrifice, dedication and the unwavering support of his family and friends.

"Graduating with *Cum laude* with a Dean's Merit Award for the master's in engineering: chemical engineering, I feel a sense of fulfilment as I have achieved this cum laude, all the hard work and sleepless nights were worth it," she said.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Nqobile Mkhize

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Perez Balkissoon Story

Perez Balkissoon Obtains his Honours Degree

In the spirit of resilience and perseverance, powerful tools thrive in life, the Faculty of Engineering and the Built Environment is proud of Perez Balkissoon, who was born and raised in Phoenix, Durban.

Perez, who has earned an Honours Degree in Architecture, says his proudest highlight during his honour year was conducting research, delving into topics that speak to socio-economic conditions, particularly around township economies.

According to Perez Balkissoon, his time at DUT and within the Faculty of Engineering and the Built Environment taught him that Architecture is not just a profession but a language of advocacy, identity, and healing.

"I've learned to think beyond the classroom, to design with empathy, and to always place people at the center of every project. The faculty nurtured my voice and empowered me to use it with conviction," he said.

Even though Perez experienced some challenges on his journey, his overall experience was positive.

Grateful for the valuable support from his mentors, Dr. Majahamhle Nene Mthethwa and Mr. Robert Dwamema who have achieved Master's and Doctoral degrees. Perez Balkissoon described his experience as "Resilience" and strongly recommend DUT students in this journey to keep going even when it feels impossible.

"Trust the process, lean on your passion, and remember: your background does not define your ceiling- your vision does. You belong in this space, and your perspective is powerful," he said.

Looking ahead, Perez aims to further his studies and pursue his master's degree.

Graduating with an honours degree fills the graduate with immense pride as his hard work and determination has finally paid off.

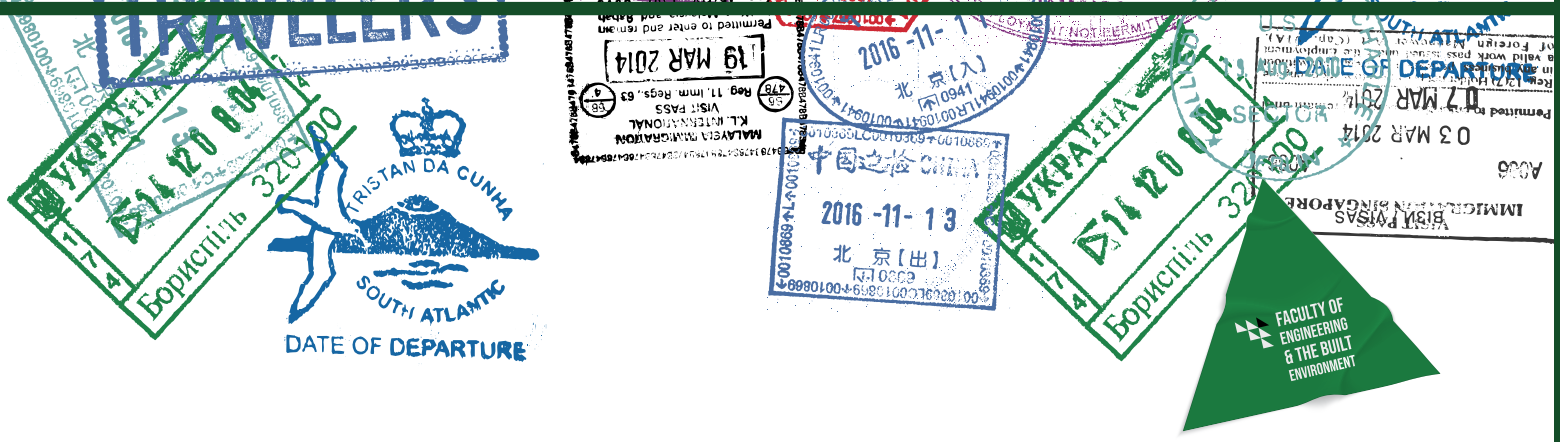
"Graduating with an honours degree is a deeply emotional and fulfilling milestone. It represents the culmination of years, perseverance, and purpose. It reminds me that dreams do not die in the face of adversity-they grow stronger. I stand today not just as a graduate, but as a testament to the power of grit, grace, and grounded vision," he said.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Perez Balkissoon

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION



Phumelele Mahlase Story

A Journey of Dedication and Achievement in Architecture

Phumelele Mahlase, originally from KwaPata township in Pietermaritzburg, is a proud graduate who earned his bachelor's degree in architecture from the Durban University of Technology.

The graduate from Pietermaritzburg is over the moon as his hard work and determination has finally paid off.

"After all the challenges I've faced, especially financial difficulties, this moment means everything. There were times when I didn't have much, but I made the most of what I had. I used every little resource, every bit of time and support, to push through. It's a reminder that even when life gives you less, you can still create more," he said.

Mahlase extended his many thanks to several individuals including his mentors and lecturers and highlighted that their support gave his strength to push forward.

He went on to describe how he became inspired by Engineering and the Built Environment.

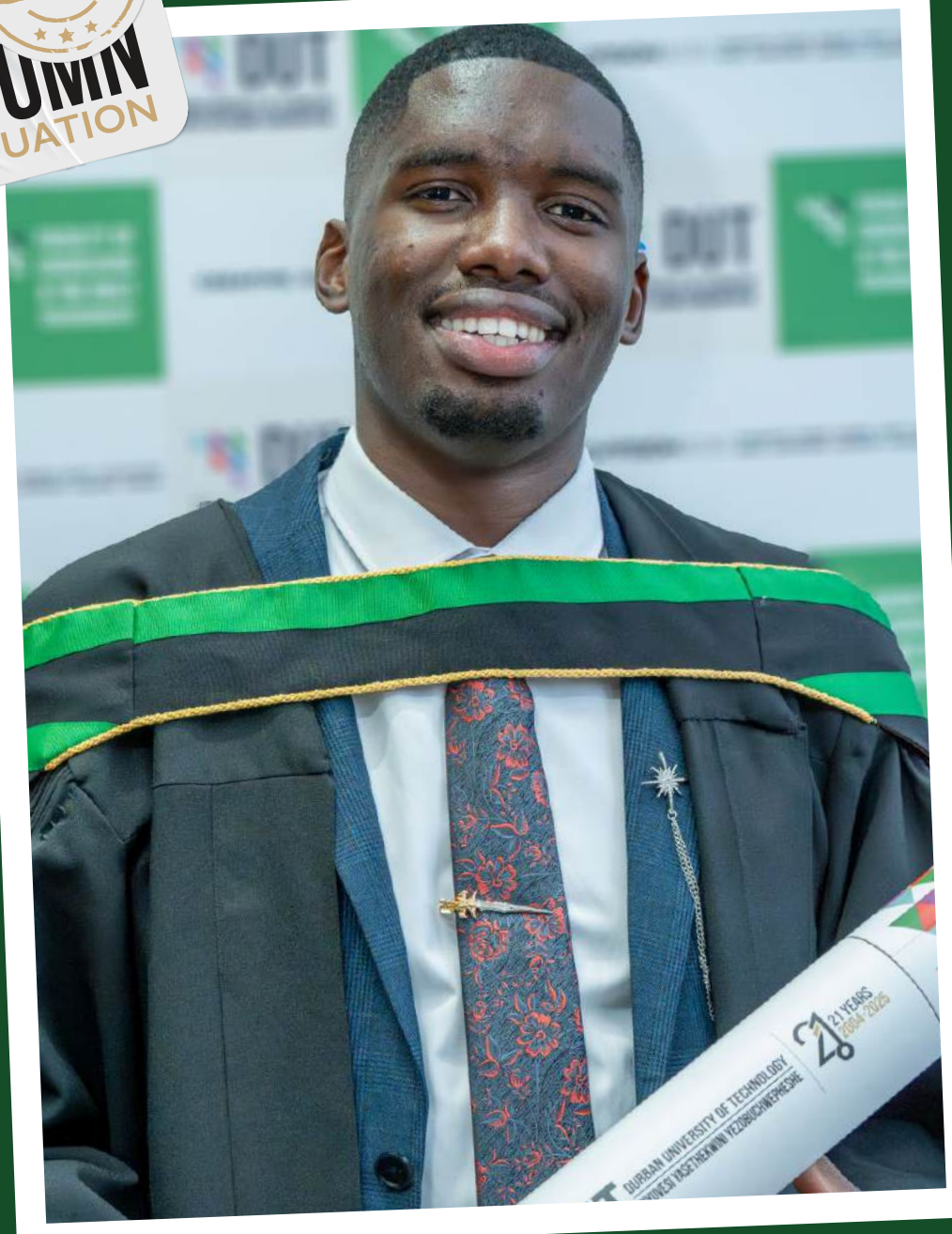
"My inspiration began in my childhood, helping my father, who was a builder in construction work. That exposure made me fall in love with how buildings come together. In high school, I took Engineering Graphics and Design (EGD), and it became clear that I had a natural ability and passion for creative design," he explained.

Phumelele Mahlase claims that winning the City Centre Sustainable Design Competition in 2024 was one of he favorite memories from his time as a DUT undergraduate. According to his, the experience confirmed that all the late nights, sacrifices, and effort weren't in vain and challenged his to think critically about sustainability and urban design.

For a first-year student embarking on a career in Architecture, Mahlase said: "Don't give up- it's worth it in the end. There's more support out there than you think. Don't be afraid to ask for help. Keep pushing and stay grounded in your passion".

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025



Phumelele Mahlase

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Phumlani Mahaye Story

Phumlani Mahaye Achieves Excellence: Honours Degree in Electrical Power Engineering

Phumlani Mahaye was raised by his grandmother in the rural areas of Eshowe, in Vuma area, KwaZulu-Natal, where his academic journey began.

Phumlani's inspiration comes from his love for Electrical Engineering and his ambition to provide novel solutions and better his local communities.

"After completing my undergraduate degree in 2021, I realized that honours would give me the opportunity to broaden scope and my knowledge in the discipline of engineering and enable me to conduct meaningful research and prepare for future innovators," he said.

Driven by the evolving demands of the engineering field and the desire to make meaningful contributions to the energy sector, Mahaye embraced the challenges of his journey while studying.

He described his journey in three words 'challenging, transformative, and rewarding'. "Challenging because balancing research and work wasn't easy. Transformative because I grew not only technically, but also in confidence and resilience. Lastly, rewarding, because the outcome exceeded my expectations, both academically and personally." He explains.

His proudest moment was finalizing his research under the topic 'Design and Simulation of Motor Drive Systems for Mining Conveyor Application'.

"Seeing the results align with real-time data, and knowing the potential industrial impact, made it all possible."

Phumlani is currently pursuing a master's in electrical power engineering with a focus on design of electrical power systems for nanosatellites (CubeSats). "I am deeply interested in space science and want to contribute to cutting-edge research in sustainable space technology."

According to Phumlani, his time at DUT and within the Faculty of Engineering and the Built Environment taught him that engineering is not just about solving technical problems – it's about addressing real-world challenges ethically and innovatively.

"The Faculty of EBE instilled in me a strong sense of responsibility, collaboration, and a desire to lead impactful projects in the energy and space sector," he said.

For students embarking on the same career, Phumlani remarked: "Stay focused and keep pushing. Challenges are part of the journey, but so is growth. Surround yourself with people who inspire you, ask questions, and remember that even the smallest progress is still progress".

He extended his heartfelt gratitude to several individuals for supporting him throughout his journey, "To my supervisors, thank you for guiding me through my research. To my family and friends, your encouragement was my fuel. I wouldn't be here without you".

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Phumlani Nzuzo Vukile Mahaye

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Reyanetse Prisca Selepe Story

Reyanetse Prisca Selepe Excels: Dean's Merit Award in Diploma in Pulp and Paper Technology

Reyanetse Prisca Selepe, 25, originally from Harrismith in Free State, is poised to graduate with a Dean's Merit Award in Diploma in Pulp and Paper Technology, from the Durban University of Technology, Faculty of Engineering and the Built Environment.

For her this achievement reflected on all the hard work, effort, and dedication that has propelled her along the journey.

"I'm very much proud of myself by graduating with a dean's merit award, it really shows that I have so much potential" she says.

One of the most memorable moments during her undergraduate journey was receiving an email for an award invitation. "I think awarding students is the best motivation and confidence booster, the institution must keep on doing it even in future for best results" she said.

She advised students to stay committed and push forward. "The effort doesn't have to drop with time, remember your goals and keep aiming higher even if it's hard".

Her inspiration for Pulp and Paper Technology stems from having the desire to contribute to sustainable practices, as it involves chemistry and chemical engineering in transforming raw materials into certain products".

When reflecting on her academic journey, her biggest source of support came from her friend and other close classmates. "My friend and I made a funny agreement that in every test one of us must be the highest, either me or him," she says. This friendly competition pushed her to work harder and strive for excellence, ultimately making a significant impact on her journey to success.

By Nontobeko Ngcobo.

DUT AUTUMN GRADUATION 2025

Reyanetse Selepe

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Dr Scelo Mhlongo's Story

Dr Scelo Mhlongo's Immense Faith Was His Source of Strength During His PHD

Walking with his bible in one hand, Dr Scelo Mhlongo (38) made his way onto the stage, armed with his faith and spiritual guidance, which was his great source of strength and inspiration throughout his academic and personal journey.

The charismatic pastor was conferred with his Degree of Doctor of Philosophy in the Built Environment at the Durban University of Technology (DUT) 2025 Autumn Graduation Ceremony at the Olive Convention Centre on Tuesday, 27 May 2025.

Dr Mhlongo, who works at DUT, was ecstatic to have family, especially his wife and three boys to watch him proudly receive his PhD at the prestigious DUT ceremony today.

When asked about what his thoughts were upon receiving his doctoral degree, Dr Mhlongo remarked that he was extremely happy and it seemed surreal, like he was in a dream.

"I truly worked hard to achieve this academic excellence and I contributed to the board of knowledge and worked well with the Departmental Research Committee (DRC) at DUT. This committee played a vital role in my research process, particularly in the reviewing and approval of my research proposal and the annual progress reports," he emphasised.

Sharing more on his academic research, Dr Mhlongo spoke on his thesis, titled: A feasibility study for the development of an automation tender processes: A Case of KwaZulu-Natal (KZN) Department of Public Works.

"The delivery of Construction (Building) Projects have been associated with unethical professional practices and heave resulted in adverse outcomes. These outcomes have led to unsustainable growth of the industry at the Kwazulu-Natal province of South Africa," he explained.

In his thesis he further indicated that the associated unethical practices range from corruption, political influences in the tendering and award of contracts and unhealthy professional practices.

"The standard operation procedure provides an organised foundation for the organisation's infrastructure supply and maintenance that could easily be compromised," he shared.

Dr Mhlongo expressed that this study aims to investigate factors that militate against tendering processes, with the view of developing an automation system of tendering processes at the KwaZulu-Natal (KZN) Department of Public Works (DPW), South Africa (SA) with a view to eliminate unsustainable practices in the delivery of projects.

"Findings of the study reveal corruption, political and unethical practices as the factors causing poor tendering process at the KwaZulu-Natal (KZN) Department of Public Works (DPW). These ultimately adversely impact on time and cost leading

to increases. Based on these, the study developed an app to automate the processes of tendering at the KwaZulu-Natal (KZN) Department of Public Works (DPW), South Africa (SA). The study also found that benefit accrues from automated tendering systems. These are reduction in corruption, affords transparency, the elimination of paperwork and paper. The study recommends the adoption of the app developed for tendering practices for the procurement of projects at KwaZulu-Natal (KZN) Department of Public Works (DPW), South Africa (SA)," he indicated.

Dr Mhlongo expressed that his wish is to be hopeful that the Department of Public Works would consider using his app to automate the processes of tendering at the workplace.

By Waheeda Peters

DUT AUTUMN GRADUATION 2025

Scelo Mhlongo

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Snakhokonke Mbata Story

Nine Distinctions for Civil Engineering Midlands' Top Graduate Mr Snakhokonke Mbata

Snakhokonke Mbata, a 21-year-old Civil Engineering graduate from KwaGade village in Ulundi, has completed his diploma in civil engineering technology as the top graduate.

Snakhokonke's passion for Civil Engineering began early. Growing up in a rural area with poor roads, he became curious about how infrastructure is built. "Cars couldn't reach our home easily, and that made me want to be part of the solution. I wanted to build better roads and help communities like mine," he shares.

He took his first step by attending Tisand Technical High School, which laid the foundation for his career in engineering. Coming to DUT, he faced many challenges, especially the intense workload, balancing tests, assignments, lab practicals, and projects. But he stayed focused. "I had to put my social life on hold and surround myself with disciplined classmates. We used to study overnight on weekends just to stay ahead," he says.

His commitment paid off. Not only did he complete his diploma without a single fail or supplementary exam, but he also stood out academically with 9 distinctions, an achievement that reflects both his discipline and determination.

Mr Mbata also credits his success to the support of dedicated lecturers in the department. He mentioned Mr Mongezi Mkhize who encouraged him through career advice and sharing his own journey in engineering, and Mr. Jacob Adedeji who inspired his interest in Transport Engineering, especially in pavement design.

"He made the subject come alive and was always available to help us," Snakhokonke says.

One of his biggest academic highlights was the final-year Water Engineering design project, a detailed capstone project requiring over 8,000 words and advanced use of the Civil Designer software. "It was tough, but I gave it my all and achieved excellent results," he says proudly.

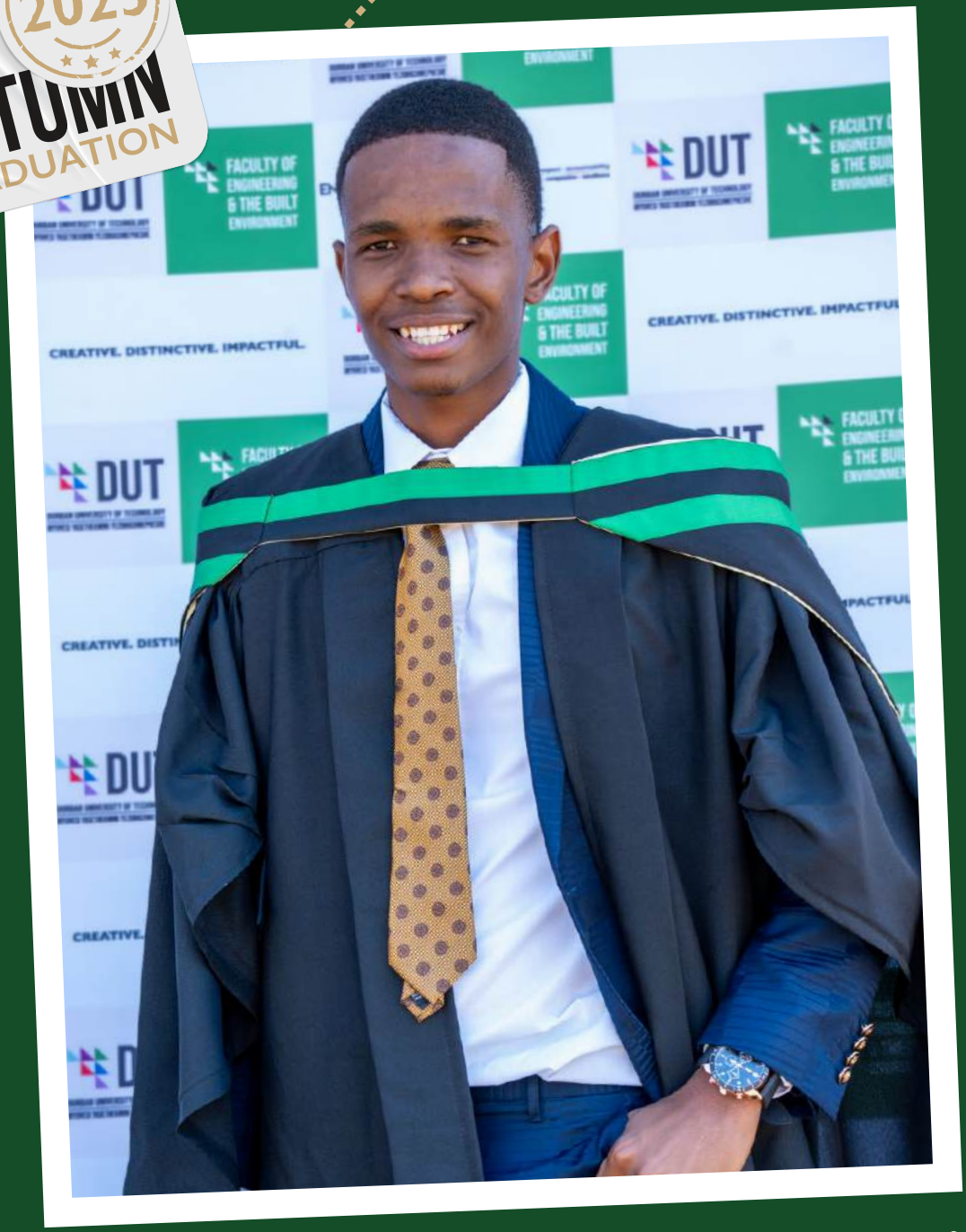
Looking ahead, Snakhokonke is determined to continue growing. He's currently seeking funding to further his qualifications and plans to register with ECSA as a Professional Engineering Technologist. His interests lie in Transport Engineering and Water and Wastewater Treatment.

Snakhokonke also feels strongly about giving back. In his community, many young people lack direction when it comes to education. "I want to motivate them to take school seriously and help them choose career paths that are in demand. Your background doesn't define your future."

His journey from a small village to academic excellence is a powerful reminder of what is possible with focus, resilience, and the right support.

By Shaverndran Moonsamy and Wealth Tsembile Maseko

DUT AUTUMN GRADUATION 2025



Snakhokonke Mbata

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Vezani Thandazile Chule Story

Vezani Chule graduates Honours Degree with *Cum laude*

The Faculty of Engineering and the Built Environment student, Vezani Thandazile Chule (22) from Pietermaritzburg in a rural area called Gezubuso in Elandskop, graduates cum laude for her honours in Industrial Engineering.

The 22-year-old from Elandskop is over the moon as her hard work and determination has finally paid off.

"Graduating with a cum laude for my honours degree is an incredibly fulfilling and emotional achievement for me. It represents the long hours of hard work, sacrifice, and resilience especially during times when giving up felt easier than pushing through. It's a reminder that dedication pays off," she said.

Chule extended her many thanks to her family and lecturers for the support and highlighted that the achievement motivated her to continue striving for excellence.

She explained that the challenges she encountered tested her resilience and passion.

"The honours journey pushed me beyond my comfort zone. Balancing coursework, research demands, and tight deadlines required resilience and discipline," she explained.

Despite these challenges, she remained determined to learn to manage the pressure effectively while seeking support when needed.

She aims to gain valuable experience and expertise in the industry. Her long-term goal is to further her studies and pursue master's in engineering.

She described her journey at DUT and within the Faculty of Engineering and the Built Environment as both challenging and rewarding.

"Throughout my studies, I developed a deep passion for problem-solving, process optimization, and efficiency improvement, which are all core aspects of Industrial Engineering," she said.

For a first-year student embarking on an engineering career, Chule said: "There will be long nights, self-doubts, and moments where you'll question if it's all worth it. But trust me it is. Remember why you started".

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025

Vezani Chule

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Winnie Nota Story

Chemical Engineering Star: Winnie Nota *Cum laude* Achievement Honours Degree in Chemical Engineering

Originating from the Eastern Cape town of Lusikisiki, a remarkable journey of greatness and endurance is revealed. Winnie Nota, the family's first graduate, is on track to get an Honours Degree in Chemical Engineering from the Durban University of Technology, Faculty of Engineering and the Built Environment.

Winnie's journey through university is the perfect example of tenacity, willpower, and an unwavering quest for excellence. Driven by passion for chemical engineering, Winnie's academic journey began at Mangosuthu University of Technology (MUT) where she completed her National Diploma (2019) and advanced Diploma (2022). In 2024 she furthered her studies with an honours degree in chemical engineering at DUT, earning the prestigious *Cum laude* Award with the Dean's Merit Award.

"My time at DUT and in the Faculty of EBE taught me the value of hard work, collaboration, and problem-solving. It showed me the importance of continuous learning and how engineering can address real-world challenges," she explained.

Reflecting on her journey, Winnie acknowledges the challenges she encountered, particularly balancing her studies. However, her unwavering determination and resilience propelled her forward.

One of the most significant challenges she faced was anxiety about speaking or delivering her presentations well. Through effective practice, she navigated through the challenges, mastering it and emerged more stronger and more confident.

Winnie is currently registered at DUT to further her education and pursue a Master of Engineering (Chemical).

"I plan to further my studies and eventually become Dr. Nota." She spoke.

Graduating cum laude with the dean's merit award is not just a moment of celebration for but a testament to Winnie's commitment of making her parents proud and giving them an opportunity to attend her graduation for the first time as they have never attended it before.

"I feel proud and grateful to be graduating cum laude/dean's merit. When I saw it on ITS, I was surprised and happy. I know I worked hard and gave it my best, but achieving the prestigious award is truly a blessing and proves my effort was worth it." Said a proud Winnie Nota.

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025

Winnie Nota

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

Yeshlen Thulkanam Story

Thulkanam Sets His Sights On Making His Mark In The Field Of Construction Management And Quantity Surveying

Yeshlen Thulkanam, a 27-year-old top achiever from Richards Bay, had set his sights on making his mark in the field of Construction Management and Quantity Surveying. He graduated Cum Laude with a Bachelor of Built Environment in Construction Studies at the Durban University of Technology (DUT) 2025 Autumn Graduation Ceremony, which took place at the Durban Olive Convention Centre on Tuesday, 27 May 2025.

Thulkanam began his academic journey at DUT in 2022, with his first semester conducted online. This required him to quickly adapt to virtual learning. However, with DUT's strong support system and the guidance of dedicated lecturers, he successfully navigated the transition. When contact classes resumed, he fully embraced the university experience, formed meaningful friendships, expanded his professional network, and immersed himself in the world of construction and quantity surveying.

"Graduating Cum Laude is a dream come true. It is the result of late nights, perseverance, and unwavering commitment. But I could not have done it alone," said Thulkanam.

He credited his family for their unwavering support, particularly his parents, who made countless sacrifices to see him succeed. His brothers, Arvachin and Aryan, also played a crucial role, constantly motivating him every step of the way.

Thulkanam also expressed deep gratitude to his lecturers for their guidance, support, and the valuable knowledge and skills they imparted. He acknowledged that their dedication played a key role in his academic success.

For Thulkanam, quantity surveying was more than just a field of study it was a perfect blend of his skills and interests. His passion for numbers, financial management, and construction made this career path a natural fit. As he furthered his studies with an honours degree in quantity surveying at DUT, he also gained practical experience as a junior quantity surveyor at Enza Construction.

Currently, he is working on the development of new administration buildings at DUT, a project he finds particularly rewarding as it allowed him to give back to the institution that had shaped his academic journey.

To aspiring students, he shared this advice: "Embrace every challenge, stay dedicated, and surround yourself with people who inspire you. University is more than just academics it is a journey of growth and discovery. Work hard, but also take time to enjoy the experience," he said.

In the near future, Thulkanam planned to register as a

candidate with the relevant professional body, marking a significant step toward his long-term goal of becoming a registered professional quantity surveyor. He aims to drive innovation and sustainability in infrastructure development, ensuring that every project he undertakes would leave a lasting impact on communities.

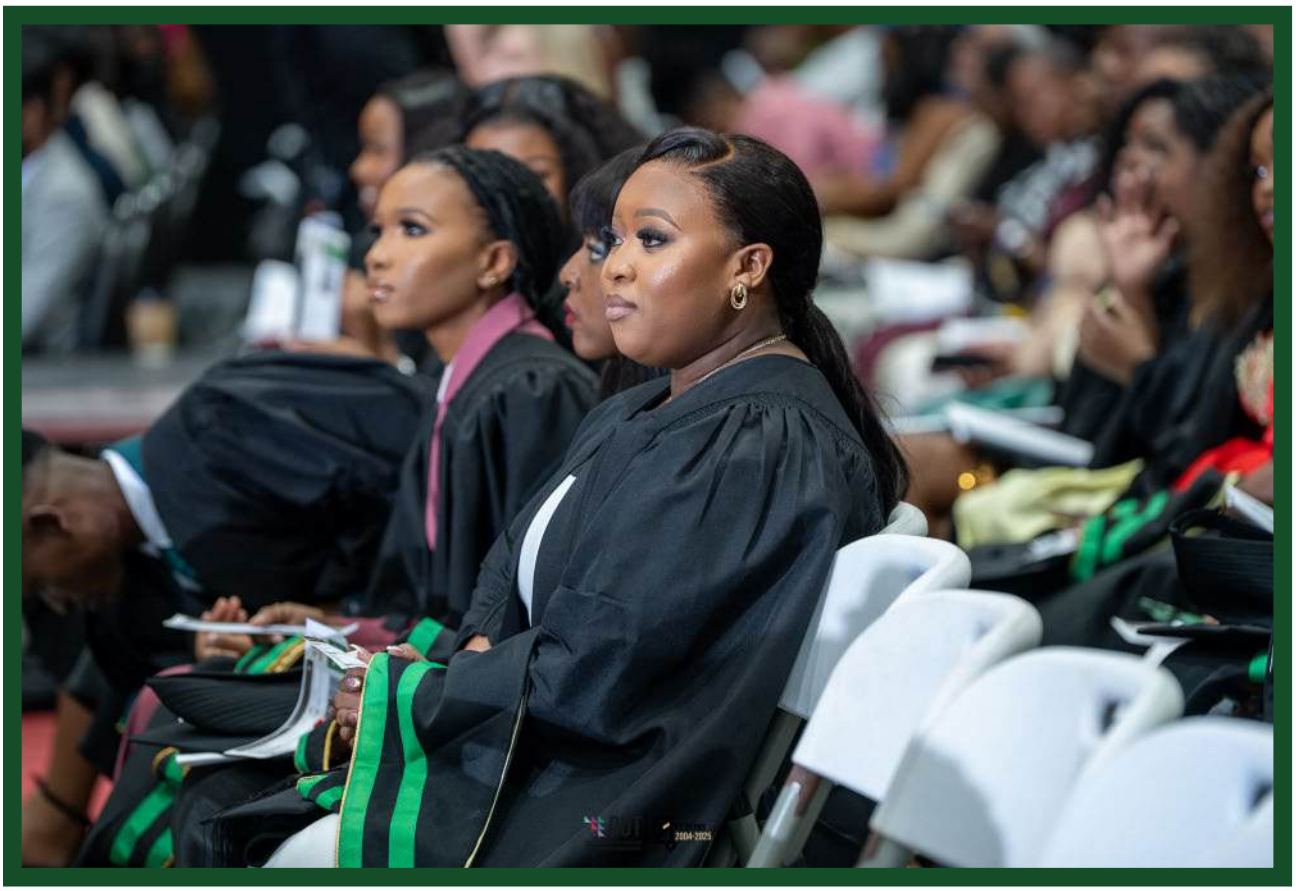
By Sinamile Sithole

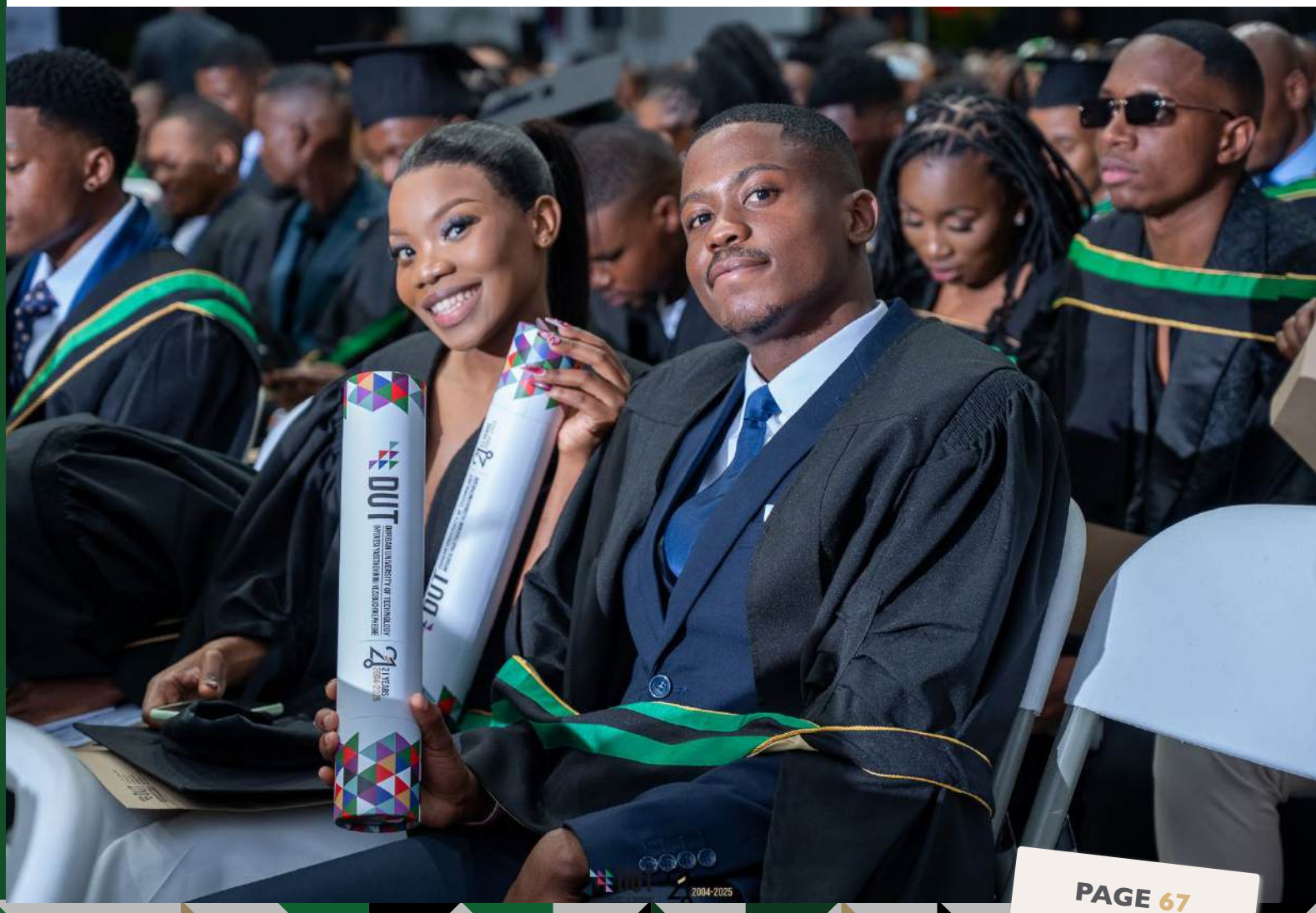
STAMPED WITH POSSIBILITIES

DUT AUTUMN GRADUATION 2025

Yeshlen Thulkanam

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION




DUT
2004-2025

Zinhle Nzuza Story

Civil Engineering Excellence: Zinhle Nzuza's Master's Achievement

The Durban University of Technology, Faculty of Engineering and the Built Environment is proud of Zinhle Nzuza from Durban, for obtaining her Master's Degree in Civil Engineering with *Cum laude* and a Dean's Merit Award.

According to Zinhle her time at DUT and within the Faculty of Engineering and the Built Environment shaped her into developing a strong foundation in engineering principles and practices. "Throughout my academic journey at DUT, I have developed technical skills, as well as soft skills like communication and leadership" she said.

Her professional growth and academic attributed from her supervisor Dr. Bloodless Dzwairo.

One of her biggest challenges during her studies was finding balance. "I struggled to maintain a balance between work, study, and personal life, as the civil engineering field can be quite demanding, often involving multiple projects with tight deadlines, which made it difficult to find time for my studies, friends, and family" she remarked.

Despite these challenges, Zinhle made the most of the opportunity. One of the key moments during her academic journey was presenting her research at the GCC5 Conference in 2023. "As it was my first conference, I was honored to receive the award for best poster presentation," she says. "The experience enabled me to share my initial findings with a wider audience, gather valuable feedback, and connect with professionals in my field".

Graduating with *Cum laude* was a significant achievement for Zinhle. "I am filled with joy and enthusiasm! The considerable time and effort I dedicated to completing my thesis have culminated in my graduation with *Cum laude* with the Dean's Merit Award, which served as a testament to my dedication and diligence" she reflects.

Looking ahead, Zinhle's short term goal is to obtain professional registration with ECSA and continue to improve the quality of life of South Africans through infrastructure projects. Long term goal is to further her studies in the near future and pursue a PhD within the flood management field.

She extended her heartfelt gratitude to her supervisor, Dr. Bloodless Dzwairo, for providing guidance and support. Her family and friends for the unwavering support and encouragement.

By Nontobeko Ngcobo

DUT AUTUMN GRADUATION 2025

Zinhle Nzunza

YOUR STORY,
YOUR IMPACT
YOUR CELEBRATION

783
TOTAL NUMBER OF GRADUATES

591
UNDERGRADUATE

192
POSTGRADUATE

298
FEMALES

485
MALES

118
DIPLOMA (240)

15
DIPLOMA

28
NATIONAL DIPLOMA

416
BACHELOR DEGREE (360)

10
ADVANCED DIPLOMA

4
B TECH

161
HONOURS

22
MASTERS

9
DOCTORATE

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