



2025 QUARTER 3 ENGAGEMENT REPORT

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ENVISION 2030

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EXECUTIVE SUMMARY

This report provides a comprehensive overview of the Durban University of Technology's (DUT) engagement activities across its Faculties and key strategic units during the third quarter of 2025. It highlights significant progress, milestones, and contributions across critical areas including research, partnerships, conferences, innovation, entrepreneurship, and co-operative education, while also identifying ongoing challenges and emerging opportunities. This period emphatically demonstrates DUT's sustained commitment to its ENVISION2030 vision as a people-centred, innovation-driven institution, fostering impactful, sustainable, and globally connected academic and community initiatives.

Key Highlights by Quad-Helix Model

Academia: Academic endeavors across all faculties and departments significantly strengthened research capacity, expanded postgraduate supervision (with numerous PhDs, Masters and Honours students graduating), and fostered interdisciplinary projects. DUT's commitment to research-led teaching and addressing real-world challenges was evident through over 60 high-impact journal articles, multiple books, and applied student projects in diverse fields including engineering, applied sciences, accounting, informatics, and management sciences. Key initiatives like RoboGirl 2025, the Smart Robotics Lab, and specialized applied learning programmes underscore DUT's dedication to enhancing graduate employability, fostering innovation, and ensuring curriculum responsiveness. Scholarly activity was further advanced through strategic academic exchanges and international recognition, reinforcing the alignment of teaching and learning with research excellence, industry demands, and global standards.

Industry: Industry partnerships have been pivotal in driving student internships, applied research, and the development of short courses and collaborative projects. Notable successes include two patents from the Grey Water Recycling Project, and the Department of Maritime Studies' engagement with the Namibia University of Science and Technology for new courses and with SAFPORTS Pty Limited for a Marine Survey course. Strategic engagements across various faculties successfully secured bursaries, research funding, and innovation support, including approximately R8 million in bursary and internship funding for the Faculty of Accounting and Informatics (FAI) and also Advancement and Alumni Relations Unit, raising R7.8 million from industry. These collective

efforts significantly contributed to generating third-stream income, strengthening SME development, and promoting entrepreneurship via initiatives spearheaded by Innobiz DUT, and Centre of Social Entrepreneurship Rapid Incubator (CSERI), which collectively engaged 151 businesses, resulting in operational ventures valued at approximately R100 million and creating around 200 jobs.

Government: Engagements with government stakeholders successfully aligned DUT's activities with national policy priorities, regulatory compliance, and broader development objectives. DUT actively contributed to significant initiatives, including KwaZulu-Natal policy review projects, expert input on national water and wastewater management [by Institute for Water and Wastewater Technology (IWWT)], and collaborative climate change research with the South African Medical Research Council. Notably, Co-operative Education secured over R32.66 million in SETA funding, benefiting 565 Work-Integrated Learning students and graduate interns. These efforts collectively address critical policy and skills gaps, underscoring DUT's strong commitment to sustainability and the strategic objectives outlined in ENVISION2030.

Community: Community engagement remained a cornerstone of DUT's mission, with faculties and units actively collaborating with schools, civic associations, local businesses, and grassroots organizations. Significant initiatives included extensive educational outreach reaching nearly 10,000 learners and educators through school visits and STEM programs, the Chemistry Department's Mahlabathini Science Week which engaged over 1,600 learners, and RoboGirl 2025, highlighting the university's commitment to gender inclusivity in technology. Applied student projects effectively addressed diverse community needs, such as the Edendale Wetland

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Project and land use analysis for the Nazareth community. The launch of the Vumanhlamvu Digital Centre and the Adopt-A-School Entrepreneurship Programme in Nkandla advanced digital inclusion and rural economic empowerment. Entities like Innobiz DUT, and CSERI collectively reinforced DUT's vital role in cultivating entrepreneurial ecosystems, strengthening SMEs, and driving sustainable socio-economic development and peacebuilding initiatives.

Despite challenges such as inadequate infrastructure, persistent connectivity issues, limited research funding, administrative delays in grant processing, and the demands of balancing academic publication with time-intensive community engagement, the reporting period also revealed significant opportunities. These include establishing numerous new international partnerships (formalizing MOUs with five universities in Africa, Europe, and South America), expanding

applied student projects, increasing third-stream income (over R2.8 million from short courses), and strengthening Quad-Helix collaborations.

This Quarter 3 report reaffirms DUT's unwavering commitment to integrating research, teaching, innovation, and community engagement within its Quad-Helix framework. Progress across all faculties and departments clearly demonstrates the institution's advancement towards its ENVISION2030 goals, building robust academic capacity, generating profound societal impact, and solidifying its leadership in applied knowledge, innovation, and global engagement. By strategically aligning emerging opportunities with its core priorities, DUT is ensuring the continued cultivation of adaptive, socially responsible graduates and contributing meaningfully to societal transformation and sustainable development.



Prof. Faizal Bux, Dr Lavern Samuels, Prof. K. K Pant, and Prof. V. C. Srivastava at the IWWT MoU Signing.

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1. INTRODUCTION

The Durban University of Technology consistently strengthens its position as a leading institution of higher learning, actively advancing research, innovation, industry collaboration, and community engagement, all integral to its ENVISION2030 strategic objectives. This Quarter 3 (Q3) Engagement Report provides a comprehensive account of the activities, significant achievements, and emerging opportunities across DUT's faculties and strategic units, showcasing the institution's dynamic role in addressing complex societal and economic challenges.

This reporting period unequivocally reflects DUT's profound commitment to embedding engaged scholarship within its teaching, learning, and research frameworks, thereby driving both innovation and impactful societal transformation. Across faculties and departments, a diverse array of initiatives, ranging from high-impact research publications, cutting-edge AI-driven projects, and extensive postgraduate capacity development to international collaborations and comprehensive community outreach programmes, underscores the university's proactive responsiveness to national development priorities, global sustainability goals (such as the UN SDGs and Agenda 2063), and the critical needs of local communities. This includes pioneering work in areas like sustainable energy solutions, peacebuilding, and digital inclusion.

Strategic partnerships are fundamental to DUT's engagement model, effectively leveraging a Quad-Helix approach that seamlessly connects academia, industry, government, and community stakeholders. These robust collaborations, exemplified by over R32.66 million funding for Work-Integrated Learning, industry-driven research (e.g., AI-driven maritime technologies), contributions to national policy review, and community-led

digital literacy training, have significantly expanded opportunities for knowledge transfer, enhanced work-integrated learning, and stimulated entrepreneurship. Concurrently, they support crucial policy development, foster sustainable practices, and drive inclusive growth across various sectors.

While this quarter has been characterized by significant progress and tangible impact, DUT candidly acknowledges persistent challenges within research infrastructure, funding mechanisms (e.g., delays in grant processing), and administrative systems. Proactively addressing these constraints, alongside managing staff workload and ensuring optimal institutional resources, remains a paramount priority to ensure greater efficiency, foster continuous innovation, and maximize impact across all facets of its engagement.

Ultimately, this report not only chronicles DUT's impressive achievements and contributions but also offers a forward-looking perspective, demonstrating how the institution will continue to strategically leverage its robust partnerships, cutting-edge innovation, and unwavering academic excellence to forge a more sustainable and socially just future for all.

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2. KEY FOCUS AREAS AND INITIATIVES

2.1. RESEARCH ENGAGEMENT

2.1.1 Highlights of Research Programmes, Grants, and Publications

During the third quarter of 2025, DUT continued to make significant strides in research, innovation, and academic engagement across multiple faculties and departments. The Faculty of EBE actively progressed with collaborative projects during this period. Faculty departments participated in both local and international academic conferences, while at least two new research collaborations were initiated, further cementing EBE's reputation as a hub of innovation and cross-institutional research.

In the realm of research engagements, DUT demonstrated robust scholarly activity. Notably, the EMCR Department, in collaboration with its academic team, published a significant article on public health and safety in transportation in the *African Journal of Primary Health Care & Family Medicine*. Furthermore, the Department of Somatology, in extensive collaboration with the Department of Biotechnology and Food Science, and external institutions, generated numerous high-impact publications.

Further demonstrating DUT's research output, the Department of Biotechnology and Food Science significantly contributed with 17 publications spanning a diverse array of subjects, from novel chemical synthesis and nanocatalyst applications to cancer therapeutic trials, biofuel production, and various aspects of microbial and environmental science. Additionally, the Department of Statistics advanced its scholarly work by publishing an article in *BMC Public Health* on the application of random forest algorithms to determinants of pregnancy termination. This department also proactively strengthened data analysis capacity through specialized workshops conducted with the State Security Agency and within DUT.

In Q3, the Department of Chemistry significantly contributed with eleven publications, covering a broad spectrum of research from environmental applications like water treatment and microbial taxa in sulfide-rich springs to material science and sustainable innovations in fuels and fungicides. Concurrently, Food and Nutrition published two articles addressing critical issues in household food waste literacy and the health benefits of brown rice. The Department of Mathematics further expanded DUT's academic footprint with seven articles spanning diverse fields such as astrophysics, stellar evolution, artificial intelligence in STEM education, and mathematics educator training.

The Department of Horticulture demonstrated its commitment to fostering a vibrant research culture by launching the Horticultural



DUT Dr Emmanuel Kweiyor Tetteh, wins Coveted Award at 2025 'Science Oscars'.

Research Colloquium in August 2025, an initiative designed to enhance collaboration among staff, postgraduate students, and research stakeholders, with plans to integrate industry partners in future events. This was complemented by a publication on quality management in ready-to-eat pomegranate arils, highlighting the department's applied research focus. Similarly, Maritime Studies is poised for strong future research output, with nine students enrolled in its Master's programme and seven research proposals already approved.

The Faculty of Accounting and Informatics actively pursued and secured various funding opportunities, notably receiving additional tranche funding from Sheffield Hallam University for the British Council Knowledge Exchange Project in Kenya. Faculty representatives engaged in key funding applications, including Erasmus and LLM Gen AI. Furthermore, MICTSETA provided crucial support for the development of three significant systems: The Data Lakehouse, Workload, and Research Allocation Systems. These funding successes and developmental projects underscore the Faculty's proactive approach to expanding research capacity and enhancing operational efficiency.

Within the Faculty of Management Sciences, key outputs included a significant review on residual flood risks published in *Climate Policies*, alongside numerous other journal contributions exploring themes such as higher education communication, consumer

behavior, service quality, women's entrepreneurship, multi-level marketing, migration, and corporate social responsibility. International curriculum development partnerships were significantly strengthened through strategic research visits to Istanbul and Rabat. International Week featured a compelling keynote address on decolonial and sustainable internationalization. Furthermore, DUT formalized Memoranda of Understanding with five international universities: Ibn Tofail University, Universidad Tecnológica Empresarial de Guayaquil, Karadeniz Technical University, Gedik University, and Gebze Teknik Universitesi. These agreements are crucial for facilitating staff and student mobility, academic cooperation, research collaboration, and fostering innovative initiatives like Collaborative Online International Learning (COIL).

The Institute for Water and Wastewater Technology demonstrated robust performance, with presentations at key international conferences, including the 11th Microbial Ecology and Water Engineering Conference and the International Conference on Algal Biomass, Biofuels and Bioproducts. Significant funding was secured via WRC, Tertiary Education Support, and BRICS initiatives. The institute's scholarly contributions were further marked by publications in prestigious journals such as *Environmental Pollution and Science of the Total Environment*.

Research and engagement at ICON significantly advanced, focusing on operationalizing a multi-level partnership model for sustainable community development. This approach prioritized co-producing knowledge with communities and aligning local challenges with

global agendas, including the SDGs and Agenda 2063. ICON staff actively facilitated dialogues with academic, policy, and community organizations, bolstered by grants from the NRF, DUT, and DHET. The quarter saw strong publication output, comprising one book and nine journal articles, with projects under review including BRICS Research Institute collaborations. Key outputs encompassed a critical book review and multiple high-impact articles covering themes such as water microbiology, plastic pollution, and microalgae inoculation.

Overall, the third quarter of 2025 emphatically demonstrates DUT's sustained commitment to high-quality research, robust interdisciplinary collaboration, and significant societal impact. Through strategically leveraging strong partnerships with industry, government, academia, and communities, the university consistently fosters innovation, empowers its diverse student and staff body, and contributes meaningfully to sustainable development and the broader global knowledge economy.

2.2. RESEARCH PARTNERSHIPS AND COLLABORATIONS

2.2.1 National Collaborations

During the third quarter of 2025, DUT formalized several strategic partnerships and collaborative initiatives to bolster research, innovation, and community engagement. A key development was the signing of a Memorandum of Understanding between DUT and the College of Emergency Care in the Western Cape. This partnership



KZN Premier, Honourable Thamsanqa Ntuli officially opening the Nkandla Digital Centre, a project supported by Innoboz DUT and Moses Kotane Research Institute (MKR).



is designed to enhance community engagement, build capacity for emergency medical care academics and students, enrich curricula, and foster joint research and publications centered on community development. Concurrently, the Chiropractic Department is nearing the finalization of an MOU with KZN Athletics, with a formal press release anticipated to announce this collaboration.

DUT also signed a landmark Memorandum of Agreement (MOA) with the eThekweni Municipality, formalising a three-year partnership aimed at driving strategic research, resource sharing and promoting life-long learning. The collaboration with the City and the Municipal Institute of Learning (MILE) reflects DUT's focus of creating research with societal impact, strengthening ties between academia and government and to tackle complex urban challenges.

In the Department of Town and Regional Planning, representatives participated in an international research workshop hosted by UKZN, bringing together teams from South Africa, Nepal, Canada, and the United Kingdom, in July 2025. This project focused on exploring climate adaptation strategies for mobility challenges and precarious housing in urban contexts, with ongoing field research planned for two Durban communities until late 2026.

The Department of Horticulture significantly strengthened national research collaborations with experts from institutions such as the Postharvest and Agro-Processing Research Centre at the University of Johannesburg and the Research Centre for Plant Growth and Development at UKZN. Similarly, the Department of Biotechnology and Food Science advanced partnerships with numerous national institutions and experts, including those from UKZN, CPUT, the ARC – VIMP, MUT, the Medical Research Council, and the University of Limpopo. These collaborations collectively support a wide spectrum of research initiatives across biotechnology, food science, and allied disciplines.

The Department of Maritime Studies is finalizing an MOU with UNISA to bolster collaborative research and contribute to the planning and execution of UNISA's 2026 international conference. Concurrently, the Department of Chemistry has forged significant partnerships with leading universities and industry partners, including the University of the Witwatersrand, UCT, TIA, CSIR, and Mintek. A notable initiative includes a sustainable catalysis project with UCT, which focuses on optimizing catalysts for the direct conversion of furfural to 2-methylfuran, a promising biofuel application.

The FAI successfully hosted the 9th ICTAS International Conference, attracting delegates from over ten countries. The event received 132 paper submissions, 60 of which were accepted for IEEE Xplore publication, and featured three exponential technology workshops for undergraduate students. Collaboration with the University of Trento and participation from West African universities further strengthened DUT's international engagement.

A consortium of national partners, including the UKZN, Electromechanica, the Additive Manufacturing Institute, Connect-it, Air Products, Solar MD, Moulded Plastics Technology Station, and Fibretech, are actively supporting DUT's.

AI-driven boat projects. These crucial collaborations are fostering innovation in autonomous and hydrogen-powered maritime technologies, with advanced PhD-level research specifically planned for navigation and obstacle avoidance systems.

Furthermore, DUT faculty members made significant contributions to national disaster management research through active participation in the National Disaster Management Centre's Disaster Bursary Steering Committee and the National Research Agenda Committee. Key activities included a presentation at the NDMC Research Colloquium, focusing on enhancing flood resilience in the eThekweni Metropolitan Municipality, alongside collaborative research with the Western Cape Provincial Disaster Management Centre and the West Coast District Disaster Centre on critical climate risk vulnerability assessments.

The Institute for Water and Wastewater Technology continues to strategically strengthen its partnerships with industrial stakeholders, local universities, water utilities, municipalities, and research associates. These extensive engagements are crucial for advancing wastewater treatment technologies and sustainable practices, thereby contributing significantly to applied solutions in water and waste management.

During DUT International Week, key sessions underscored



The Faculty of Accounting and Informatics participated Belt & Road BRICS Competition of Skills Development and Technology Innovation (South Africa).



Executive Dean Prof Olugbara hosting the VC from Koforidua Technical University in Ghana.

the importance of advancing excellence, social justice, and the transformative role of global partnerships in higher education across the continent. Experts from DUT and collaborating institutions, including UKZN, UNIZULU, and Mangosuthu University of Technology, actively participated in panel discussions, collectively showcasing DUT's steadfast commitment to fostering international collaboration, driving research innovation, and generating significant societal impact.

Overall, this quarter highlights DUT's dynamic approach to strengthening its research ecosystem through a diverse array of strategic partnerships and collaborations, both nationally and internationally. From formalizing MOUs for emergency care and sports science, to engaging with industry for AI-driven maritime technologies and water management solutions, and actively shaping national disaster management agendas, the university has demonstrated a robust commitment to inter-institutional and multi-sectoral engagement. These initiatives are pivotal in expanding research capacity, fostering knowledge co-creation, and ultimately driving impactful innovations that contribute to sustainable development and address critical societal challenges

2.2.2 International Collaborations

DUT supported the Faculty of Health Sciences, actively established a Memorandum of Understanding with O.P.Jindal Global University in India, focusing on the conceptualization and implementation of community engagement across the Global South, with a specific emphasis on South Africa. Additionally, an MOU was initiated with the College of Social Work, Nirmala Niketan, Mumbai, India, designed to enhance the understanding and integration of community engagement within social work education and to facilitate comparative approaches between India and South Africa.

The Chiropractic Department has commenced discussions with the University of Health Sciences in the United Kingdom to explore potential collaborations, including Collaborative Online International Learning (COIL) projects, leveraging an existing MOU. Concurrently, the EMCR Department initiated collaborative engagement, which featured a benchmarking visit from Boitekanelo College in Botswana

A staff from the Department of Nursing was selected to participate in the Distinguished Professor Program 2025 at Parul University, India. This involvement, as the sole South African participant, significantly showcased DUT on an international platform, fostering collaborative research, discussions, and knowledge sharing with global scholars. This initiative has also led to the formalization of an MOU between Parul University and DUT, strengthening bilateral ties under the BRICS initiative and creating opportunities for mutual academic development.

An international collaboration focusing on children's cognitive mapping involves members from DUT, along with second- and fourth-year child and youth care students, working with researchers from Carleton University, Canada. Through workshops, students are trained to facilitate mapping activities in child and youth care centers and schools, which helps children symbolically represent spaces, people, and memories, particularly benefiting those who struggle to verbalize emotions.

Within Basic Medical Sciences, significant international research collaborations have been established, including ongoing discussions to formalize an MOU and expand COIL initiatives with the Federal University of Pernambuco, Brazil. Further collaborations extend to the University of Pernambuco, Brazil; the Society of Maternal and Fetal Medicine, India; and Auckland University of Technology, New Zealand. Additionally, international partnerships have been secured for the co-supervision of postgraduate students, involving collaborators from the United Kingdom, Qatar, Palestine, Tanzania, Brazil, Switzerland, Canada, and South Africa, supporting diverse projects in neurophysiology, emergency medicine, pharmacology, nutrition, and physical activity research.

The Department of Architecture hosted a strategic engagement with Gdańsk University of Technology, Poland, to explore various avenues for collaboration, including faculty exchanges, research partnerships, digital cooperation, funding opportunities, scholarships, and cultural exchange. The department further enriched its international profile by hosting a prominent international scholar for a guest lecture on urbanism and engaged with Metropolia University of Applied Sciences in Finland to identify additional collaborative opportunities. These initiatives were supported by key administrative offices within the university.

The Department of Biotechnology and Food Science has established extensive international collaborations with partners such as the University of Minnesota, University of Manitoba, Université de Grenoble Alpes, the Russian Academy of Sciences, University of Paraná, Northwest A&F University, Hunan Agricultural University, and academic institutions in India and Saudi Arabia. In Horticulture, researchers from the University of Tasmania, Australia, are actively collaborating with DUT on various research and development initiatives.

The Institute for Energy, Environment and Technology Research (IEETR) maintains a joint partnership with the South African Wind Energy Association (SAWEA), with plans for an energyDRIVE truck to tour rural schools and energy sites from September 2025, culminating in an exhibition at the Energy Indaba. Furthermore, the Physics Department finalized a Memorandum of Understanding with UNESCO and the Mahatma Gandhi Institute of Education for Peace and Sustainable Development, with the associated project scheduled to commence later in the year.

The Department of Maritime Studies formalized three Memoranda of Understanding in the third quarter of 2025: two aimed at student sponsorship via the National Department of Transport and the German Seafarers Mission, and a third with SAFEPORTS to boost third-stream income through expanded short course offerings. The department actively engaged with government entities, national and international academic institutions including UNISA, NUST, AASTMT, and WMU, as well as industry partners such as AMSOL. Furthermore, discussions were held with a delegation from the World Maritime University regarding collaborative research in digital competencies and the establishment of a Maritime Education and Training network.

In the Chemistry Department, collaborations are underway with universities in Kenya, including Maseno University and Maasai Mara University, and with South African institutions such as



UNISA, VUT, and UL, facilitated by the MOMODA platform to provide postgraduate students with research opportunities and facility access. Departmental senior technicians participated in the Analytica Lab Africa workshop, which led to reciprocal visits to plan laboratory facility upgrades. International research collaborations were additionally strengthened with universities in Kenya and the Czech Republic.

The Department of Consumer Sciences, Food and Nutrition successfully undertook a DAAD-funded exchange programme with Hamburg University of Applied Sciences, Germany, involving six students and a lecturer. This week-long academic exchange centered on consumer perceptions of food healthiness in South African and German markets, effectively fostering collaborative research, workshops, fieldwork, and valuable cross-cultural learning experiences.

In Sports Studies, a collaboration with the University of Huelva, Spain, involved delivering lectures on emotional education, physical activity benefits, and motivation in educational and sports contexts. This partnership also led to the co-authorship of a research article comparing physical education policy and research trends between Spain and South Africa. Further engagement in research, teaching, and collaboration with the University of Huelva is planned for November 2025.

The Faculty of Accounting and Informatics has significantly strengthened its international partnerships and contributed to global skills development initiatives. This included notable recognition at the Belt & Road BRICS Competition on Skills Development and Technology Innovation, where DUT received the BRICS Training Workshop award in Artificial Intelligence and Big Data, and its students secured a bronze medal in the Future Skills Competition. These engagements, coupled with collaborations spanning China, Ghana, Italy, and Pakistan, resulted in five new Memoranda of Understanding and the ongoing development of BRICS-aligned curricula.

DUT through ICON, engaged with St. Augustine University of Tanzania, in July 2025, delivering comprehensive lectures on public administration, democracy, peacebuilding, transformative pedagogy, action research, and social sciences research methodology. This engagement highlighted the integration of public administration and peacebuilding with African social ethos, specifically Ujamaa and Ubuntu. SAUT expressed strong interest in programme exchange, Peace Studies curricula, research capacity-building, and the development of new postgraduate programs in Peace Studies, with intentions to formalize cooperation via an MOU.

DUT has further solidified its international presence by formalizing Memoranda of Understanding with five universities: Ibn Tofail



Delegates at the International Week 2025.

University (Morocco), Universidad Tecnológica Empresarial de Guayaquil (Ecuador), Karadeniz Technical University (Turkey), Gedik University (Turkey), and Gebze Teknik Universitesi (Turkey). These agreements establish crucial channels for student mobility, joint research, and the formation of international advisory boards. A DUT delegation actively engaged in leadership forums, research panels, and partnership development sessions, effectively benchmarking the institution against global best practices and aligning with Africa's Agenda 2063. Visits to partner universities in Istanbul, including KOC University, yielded exploration of joint research and mobility initiatives. Projected returns from these exchange programmes signal substantial financial and strategic benefits for DUT, robustly supporting the university's vision under ENVISION 2030.

Through these initiatives, DUT unequivocally demonstrates proactive and strategic expansion of its international research collaborations and partnerships. Through formalizing numerous MOUs, engaging in student and faculty exchanges, participating in global skills competitions, and fostering inter-institutional dialogues across various continents, DUT is successfully enhancing its global academic footprint. These diverse international engagements are instrumental in enriching curricula, facilitating cutting-edge research, building capacity, and ensuring the university remains at the forefront of global knowledge exchange and impactful societal contributions, all in alignment with its ENVISION2030 goals.

2.2.3 Research Impact

During the third quarter, DUT presented on the development of an AI-driven boat designed to explore innovative energy solutions at the Hydrogen Summit in Namibia. Concurrently, a collaborative research study between the Department of Statistics and the Department of Public Relations Management is investigating the relationship between metacognitive awareness, reading, critical thinking, and academic writing skills among undergraduate students. This interdisciplinary research aims to generate findings that will contribute to future academic publication.

The Department of Chemistry continues to achieve significant milestones in research and innovation. The departmental research on CO₂ hydrogenation, conducted jointly with the University of Cape Town, was presented at prominent North American Meeting for Catalysis and Europacat conferences, leading to an invitation to submit a manuscript to the high-impact journal, Catalysis Science & Technology (Q1, Impact Factor 4.2). A senior lecturer from the department was appointed guest editor in July for two special issues: 'Green Materials for a Sustainable Future' in Frontiers in Chemistry (IF 4.2), and 'Thermodynamic and Dynamic Behaviors in Molecular Liquids: Experimental, Theoretical, and Computational' in Processes (IF 3.5). Additionally, a professor was invited to peer review a research grant application on "Whey-to-Energy through Advanced Valorization and Electrochemistry" for the Swiss National Science Foundation."

An academic from the Faculty of Accounting and Informatics presented at an IEC event on the future of e-voting in South Africa, hosted by UNISA. FAI faculty members also contributed to research by publishing an article on integrating AI tutors and are currently

developing a VR-based stocktaking system, which has received ethical approval. Across DUT, research impact continues to be significantly driven by participatory action research methodologies.

Significant contributions to peacebuilding and social development have been achieved under ICON initiatives. A peacebuilding and juvenile violence prevention framework, developed at DUT, is actively being implemented in two non-profit organizations: the Youth Fraternity for Peace and Reconciliation in Goma, Democratic Republic of Congo, and the Youth Advocacy for Peace Organisation in Shakaskraal, South Africa. FJPR delivers psychosocial support to former child soldiers and facilitates the socio-economic reintegration of the wives of former combatants, while YAPO empowers youth to address conflict non-violently through restorative justice. These initiatives are closely aligned with the development of master's degree programmes and modules in peace studies, governance, and public administration, which are currently utilized by five universities across the African continent. DUT continues its engagement with both organizations, supporting their strategic goals and contributing to sustained social impact.

Research impact at DUT underscores the significant contributions across diverse fields, ranging from innovative energy solutions and advanced chemical research to interdisciplinary studies on academic skills and impactful peacebuilding initiatives. Through strategic presentations at national and international forums, securing substantial research funding, publishing in high-impact journals, and developing practical applications such as AI-driven systems and VR-based tools, DUT demonstrates a robust commitment to cutting-edge research. Furthermore, its dedicated efforts in community engagement, particularly in peacebuilding and social development, highlight the university's role in addressing critical societal challenges and fostering tangible positive change, aligning research endeavors directly with real-world impact and sustainable development.

2.2.4 ENVISION2030 Alignment

ENVISION2030 positions research and innovation at the core of institutional success. The Faculty of Engineering and the Built Environment's activities during the third quarter significantly advance these priorities by cultivating a research profile that directly addresses the knowledge gaps and material needs of local communities, while also contributing to national and global contexts. This commitment extends to integrating research within teaching and learning, thereby fostering the development of robust, research-based solutions applicable to real-world challenges.

ICON plays a crucial role in advancing DUT's ENVISION2030 strategy, specifically through its alignment with the United Nations Sustainable Development Goals. ICON's research and initiatives span critical areas such as physical and mental welfare, education, equality, and climate action. Notably, research aligned with SDG 3 informs global policies to support community health. Promoting sustainable and inclusive approaches, ICON's work embodies interconnectedness and ecological responsibility to advance holistic human development through research, dialogue, and policy engagement. Efforts under SDG 4 focus on improving educational outcomes via transformative pedagogies and collaborative knowledge-sharing across Africa and the Indian Ocean. Research





for SDG 7 promotes policies connecting health, clean water, and universal energy access, while SDG 8 is addressed through scholarly contributions aimed at improving global welfare and fostering inclusive economic development. SDGs 13, 14, and 15 are advanced through initiatives combating climate change, biodiversity loss, and ecosystem degradation, including youth environmental education. SDG 16 is supported by leadership in peace-focused academic networks that foster governance and security frameworks. Finally, SDG 17 is exemplified through active international collaborations aimed at shaping sustainable development and peacebuilding policies at all levels.

DUT's profound commitment to its ENVISION2030 strategy is vividly demonstrated through the proactive integration of research and innovation, addressing critical local, national, and global needs. The university's strong alignment with the United Nations Sustainable Development Goals, significantly driven by its faculties, research institutes, and centers, showcases a dedicated approach to vital areas such as health, education, energy, economic growth, climate action, peacebuilding, and global partnerships. Through a synergistic approach encompassing interdisciplinary research, robust community engagement, and extensive international collaboration, DUT exemplifies its vision as a globally impactful, people-centered, and innovation-driven institution. This strategic integration of real-world issues into teaching and research, supported by its core values of engaged scholarship, sustainability, inclusivity, and transformative learning, is pivotal in producing socially conscious graduates and thought leaders equipped to drive positive societal change, thereby fulfilling its mission to tackle complex challenges and contribute to a sustainable future aligned with both national priorities and the UN SDGs.

2.3. RESEARCH EVENTS AND CONFERENCES HOSTED BY DUT

During the third quarter, the Department of Architecture hosted a Supervision Workshop in August 2025. Organized by the Curriculum Development and Review Committee in collaboration with the Administration Committee, this workshop aimed to enhance postgraduate research supervision, aligning with departmental Key Performance Indicators. Its primary objective was to strengthen supervisory skills among academic staff, with attendance from all academic staff, registered PhD students, and various invited experts. Sessions offered valuable insights into diverse supervision models, promoted alignment with departmental policies, addressed contemporary challenges, and facilitated discussions on best practices for guiding postgraduate students. The programme, which included presentations, panel discussions, and group engagements, also initiated dialogue on power dynamics, feedback mechanisms, and student writing development, ultimately strengthening research and supervision capacity and fostering collective excellence in postgraduate supervision.

Through the Mathematics Department, DUT hosted the 25th Conference of the International Association for Research on Service Learning and Community Engagement (IARSLCE) in August 2025. This significant event welcomed 215 delegates from 22 countries across six continents, marking its historic first hosting in Africa and the Global South. Jointly organized with the eThekweni Municipality and the KwaZulu-Natal Tourism and Film Board, the conference provided a vital platform for rigorous academic engagement and networking.

The Faculty of Accounting and Informatics hosted the 9th ICTAS International Conference, attracting delegates from over ten countries, in July 2025. This conference received 132 paper submissions, with 60 meeting the stringent standards for IEEE Xplore publication, and notably included a preceding Student Symposium aimed at engaging emerging scholars in cutting-edge research discussions.

ICON continued its community-focused initiatives by hosting a two-day dialogue from in July 2025, themed “Peace Begins in the Community: Local Solutions for Lasting Security in KwaZulu-Natal.” This dialogue, founded on the principle that sustainable solutions to violence must emerge at the community level, engaged a broad spectrum of stakeholders including educators, parents, local government, youth, and various community organizations. Participants offered critical insights into lived experiences and contributed to long-term strategies addressing both the symptoms and root causes of insecurity. The forum comprehensively explored diverse forms of violence and systemic challenges, while identifying opportunities for transformation and pathways to sustainable peace. The outcomes will culminate in four policy briefs outlining key findings, recommended solutions, and guidance for cross-sector collaboration, thus enhancing collective capacity for peace and strengthening community resilience.

Furthermore, ICON, in partnership with the BRICS Research Institute, hosted a webinar on in July 2025 titled “The DR Congo Crisis: Implications for Regional Peace and Security.” This event brought together scholars, policymakers, and practitioners to analyze the political and security landscape in the Democratic Republic of Congo. Discussions delved into regional peace, democracy, and economic cooperation, examining the historical roots of conflict, persistent insecurity in eastern DRC, the resurgence of armed groups, cross-border tensions, and the potential impact of international agreements. The webinar highlighted the critical need for coordinated, multi-level action to foster sustainable peace and development in the region.

Further engagements included an ICON post-doctoral fellow hosting and moderating a webinar on the DRC Crisis. Additionally, a keynote address was delivered at the Annual Disability Roadshow, hosted by the Disability Rights Unit. Several academics also attended a one-day disability awareness workshop. These diverse initiatives underscore ICON’s commitment to evidence-based solutions, multi-sectoral collaboration, and capacity building to foster resilient and safe communities.

DUT also hosted International Week 2025, a significant event that convened global experts and students. Concurrently, the university led influential panels at the 16th Association of African Universities Conference, directly shaping continental higher education policy and collaboration strategies. International Week featured intensive discussions on critical topics such as academic xenophobia, with plenaries and panel sessions dedicated to envisioning the future of African internationalization. The event culminated in a vibrant Diversity Day celebration, which transformed Curries Fountain into a global village, showcasing the rich cultural tapestry of the DUT community through parades, traditional performances, international cuisine, and fashion displays.

DUT’s dynamic engagement in a wide array of research events and conferences, underscores its commitment to advancing scholarship, fostering international collaboration, and addressing critical societal issues. These initiatives include specialized workshops to enhance postgraduate research supervision, the historic hosting of major international conferences such as the IARSLCE and ICTAS, and crucial student engagement sessions to improve academic experiences. Furthermore, DUT, particularly through ICON, organized impactful community dialogues on peace and security, hosted webinars on regional crises, and actively participated in disability awareness initiatives. The institution’s global outreach was further demonstrated by hosting International Week, fostering discussions on internationalization and celebrating cultural diversity. Collectively, these events serve as vital platforms for knowledge exchange, capacity building, policy development, and strengthening DUT’s role as a leading academic and community-engaged institution.

2.4. INDUSTRY COLLABORATION

2.4.1 Collaborations with Industry Leaders and Organizations

A Stakeholder Supervision Workshop was facilitated by staff members from the Faculty of Health Sciences, including a Child and Youth Care part-time lecturer. This workshop brought together key partners who host or mentor Child and Youth Care Work Integrated Learning students. The primary aim was to strengthen collaboration, gather feedback, and enhance the quality of training, thereby ensuring students are comprehensively prepared for industry requirements.

The Faculty of Engineering and the Built Environment convened advisory board meetings for two departments in July 2025: Electrical Power Engineering and Architecture. Discussions at these meetings focused on new programmes, opportunities for staff and student work placements, and the development of structured action plans for professional development. The Department of Electrical Power Engineering committed to launching a structured staff work placement programme aimed at enhancing exposure to current industry practices, technologies, and professional networks, which is expected to benefit teaching quality, research focus, and curriculum renewal. Student work placement discussions further reinforced the department’s commitment to Work Integrated Learning and improving graduate employability. The Department of Architecture’s advisory board, holding its inaugural meeting, engaged professional representatives from national bodies, SACAP, SAIA, and SAIBP and international partners from the UK and Singapore, with participation from the Industry Co-operative Education Unit.

In the Chemistry Department, students pursuing a Bachelor of Applied Science in Industrial Chemistry visited KZN Resins in September 2025, gaining practical insights into resin manufacturing processes. This highly positive experience has led the department to plan this as an annual initiative. Concurrently, the Department of Food and Nutrition has partnered with Mayo Mac, which initiated a research project by supplying high-grade macadamia nut oil for a randomized controlled trial integral to a PhD study. Additionally, macadamia styles 5 and 6 are being integrated into prototype





Mayor of Durban Councilor Cyril Xaba signed the MOA alongside Professor Fulufhelo Nemavhola, DVC: RIE at DUT and with representatives from MUT , UKZN and Stellenbosch University.

products such as health bars, nougat, and spreads, serving as value-added concepts for manufacturers and fostering market development and customer engagement.

Sports Studies students engaged with professionals from leading sports organizations, including Dolphins Cricket, the Sharks, and Netaholics, gaining exposure to diverse coaching techniques. A DUT alumnus also conducted a self-defense demonstration for first-year students, promoting practical skills and personal safety awareness. Furthermore, a postgraduate student presented on the critical role of social media as a communication tool in sports. Upcoming engagements for students include a NESP candidate addressing first-year Sport Marketing students and a professor delivering lectures on performance analysis to Sport Science Honours students in October.

The Department of Textile Science and Apparel Technology participated in the Emuseni Frail Care support project, involving second-year students in the production of pillowcases and matching bedspreads. Both staff and students attended the handover, gaining firsthand experience of community impact and the importance of social responsibility. In Maritime Studies, the department hosted the SAMTRA selection session in August 2025, facilitating equitable access to training for over 40 participants, including recent graduates. The department also represented the university at the four-day SAMSA Syllabus Committee meeting in Cape Town, contributing to crucial curriculum changes in seagoing programmes to align with updates to the STCW Code by the International Maritime Organization. Significant improvements were noted in work-integrated learning student placements and graduate absorption

during the first semester, with three engineering graduates securing employment in Industrial and Mechanical Engineering roles.

The Department of Information Technology actively participated in the Provincial ICT Roundtable Discussion, hosted by the Office of the Premier in September 2025 in Durban. This event convened government officials, academics, private sector leaders, and digital transformation experts to collaboratively develop solutions for ICT adoption and skills development. Within the Faculty of Accounting, the Department of Management Accounting hosted a webinar featuring a Chartered Institute of Management Accountants member, offering students valuable professional insights. The Department of Information and Corporate Management engaged with the CEO of FASSET to assess the impact of allocated funds on teaching, learning, and student success. Additionally, the Department of Financial Accounting hosted The Accounting Exchange, an industry-academia forum designed to strengthen partnerships between the university and established accounting firms in Durban.

The Co-operative Education Unit consistently fostered partnerships with industry stakeholders, ensuring that Work Integrated Learning placements are optimally suited for comprehensive training across diverse sectors. Approved partners spanned a wide array of organizations, providing opportunities in fields such as media, finance, accounting, IT, engineering, marketing, and human resource management. This broad engagement ensures students gain practical experience in varied professional environments.

Innobiz DUT participated in the EDHE ABSA South Africa Innovation Challenge Launch, hosted by Mangosuthu University

of Technology. This event saw the selection of 20 students from universities nationwide, with the top five sharing a grand prize of R1,050,000. A representative from Universities South Africa highlighted how the initiative nurtures innovation ecosystems and supports business expansion. Furthermore, the Innobiz DUT, in collaboration with several key provincial and municipal partners, successfully launched the Vumanhlamvu Digital Centre and the Adopt-A-School Entrepreneurship Programme. Hosted in Nkandla, this launch represents a strategic investment in rural economic empowerment, effectively bridging the digital divide and unlocking entrepreneurial opportunities. The event featured addresses from various distinguished speakers and community leaders. The Digital Centre functions as a vital innovation hub, providing skills development, enterprise support, mentorship, and access to state-of-the-art infrastructure, thereby enabling projects to advance from concept to commercialization. The Entrepreneurship Awards Ceremony recognized participating schools in the 'Adopt-A-School' initiative, specifically 'The Grow and Thrive School Garden Challenge.' Awards were presented to Vumanhlamvu Primary School, Ntolwani Primary School, and Mnyakanya High School, celebrating students and teachers for their creativity, innovation, and sustainability in school-based agricultural initiatives. This event underscored the impact of collaborative efforts across government, academia, the private sector, and international partners in fostering inclusive economic development pathways."

Innobiz DUT also hosted Business Management Training in partnership with the National Youth Development Agency, which significantly enhanced students' understanding of core business management principles, encompassing marketing, operations, finance, and compliance. Participants were awarded accredited training certificates. Furthermore, the Enactus DUT team successfully showcased its social enterprises, receiving valuable feedback to refine their strategies in preparation for upcoming national competitions.

The Department of Public Management and Economics actively contributed to disaster risk reduction initiatives. This included facilitating workshops with the eThekweni Municipality, the United Nations Office for Disaster Risk Reduction, and GiZ on 'Making Cities Resilient 2030' in June 2025. Additionally, the department piloted community hazard assessment and mapping exercises for fire risk management in the Kennedy Road area.

The Department of Public Relations significantly enhanced students' industry knowledge by hosting multiple guest lectures. These sessions featured various industry experts and academics who presented on diverse topics, including pitching and customer personas, the strategic value of public relations, international media relations, reputation management, research methodology, organizational communication, entrepreneurship, and addressing misinformation and disinformation. This comprehensive program provided students with broad exposure to contemporary industry practices and insights.

The Department of Entrepreneurial Studies and Management strengthened its industry collaborations through initiatives like SkillXcelerate. This programme was integrated into the Business Administration curriculum as a project-based learning project,

specifically designed to cultivate digital, entrepreneurial, and intrapreneurial skills. SkillXcelerate encouraged students to identify skill gaps, engage in MOOCs and mentorships, and apply design thinking. The SkillXcelerate launch and showcase in May 2025 featured sessions on creative entrepreneurship, leadership, and digital empowerment, presented by several distinguished speakers. Students showcased their digital and entrepreneurial projects, with awards presented for categories such as Best Digital Skills Project, Best Entrepreneurial Initiative, Best Intrapreneurial Innovation, and Most Inspirational Student, demonstrating the significant impact of the initiative on student development. External collaborations with entities such as Maccos Creative Solutions, South Coast Tourism and Investment Enterprise, significantly enriched SkillXcelerate, providing valuable mentorship and real-world perspectives. The programme emphasized self-directed learning, soft skills, digital competencies, and entrepreneurial abilities, fostering professional growth under the inspiring theme, "Because you are more than a graduate, you are the brand." Contributions from industry and alumni reinforced the importance of professionalism, portfolio development, and mentorship as critical bridges to professional success, inspiring students to embrace their identity as DUT brand ambassadors. Feedback from participants consistently highlighted the initiative's success in cultivating leadership, innovation, and value creation.

As a key component of the Postgraduate Diploma in Business Administration, students participated in a structured field immersion at the Dube TradePort Special Economic Zone in KwaZulu-Natal. This immersion, framed within the Quadruple Helix Model (linking academia, industry, government, and society), provided students with invaluable exposure to entrepreneurship development, emerging business opportunities, and sustainable innovation practices. The experience successfully deepened academic understanding, strengthened crucial industry connections, and cultivated adaptive, innovative, and impact-driven mindsets.

The Marketing and Retail Department actively facilitated Work Integrated Learning placements and comprehensive project-based learning opportunities. Departmental staff successfully facilitated interviews for TFG, leading to the placement of 25 retail students. Similarly, 60 interviews conducted at NMI DSM dealerships resulted in 50 student placements. Additionally, a staff member collaborated with 20 companies in Durban, guiding second-year students in the development of successful marketing strategies for their project-based assessments.

DUT's extensive and varied collaborations with industry leaders and organizations are clearly demonstrated, highlighting a strategic integration of external partnerships across its faculties and departments. These initiatives range from stakeholder supervision workshops and advisory board engagements to specialized industry visits and significant research partnerships, all aimed at enhancing academic programs and student preparedness. Key efforts include fostering Work Integrated Learning placements, driving entrepreneurial development through programmes like SkillXcelerate and the Innobiz Digital Centre, and facilitating structured field immersions in real-world economic zones. Furthermore, DUT actively contributes to critical discussions on ICT adoption, disaster risk reduction, and professional



development through webinars, roundtables, and guest lectures from industry experts. This multifaceted approach not only enriches the curriculum and boosts graduate employability but also extends DUT's impact through community engagement and the co-creation of solutions aligned with both institutional strategic goals and broader societal needs.

2.4.2 Industry-specific Projects and Research

The Department of Town and Regional Planning is represented in the Project Steering Committee to review of the KwaZulu-Natal Spatial Planning and Land Use Management Bill. In this capacity, the department assists KZN CoGTA in the development of the Bill, contributing to discussions and strategies alongside stakeholders from CoGTA, EDTEA, DALRRD, various municipalities, the higher education sector, private planning firms, and the Ingonyama Trust. Progress across the four associated workstreams associated with this project has been ongoing since the second quarter and continues to advance steadily.

The Department of Electrical Power Engineering is overseeing a doctoral study in collaboration with Transnet, which focuses on Low Order Harmonics in Railway Systems. This research investigates the impacts of low-order current harmonics on railway lines, traction substations, and locomotive auxiliaries. The student undertaking this study is currently preparing a literature review paper. This research is anticipated to develop advanced expertise in railway power quality, strengthen supervisory collaboration with industry, and provide crucial insights for addressing persistent harmonic issues, thereby supporting more reliable and energy-efficient railway operations. The supervising staff members maintain active engagement with Transnet throughout the duration of this project.

In Horticulture, DUT participated in the Institute of Environment and Recreation Management Convention, held in Durban, in September 2025. A research on "Spatial Street Tree Assessment to Inform a Tree Management Strategy for eThekweni Municipality," was presented which aligned perfectly with the convention theme, "Sustaining Urban Spaces." This research systematically maps the distribution of street trees across eThekweni to support the effective maintenance of urban green spaces, thereby enhancing sustainability and climate resilience. This study is an integral part of a long-term collaborative project between the DUT Department of Horticulture and the eThekweni Municipality Parks and Recreation Department.

The Department of Auditing and Taxation celebrated one of its students, who received national recognition for a significant contribution to agriculture. This student was named among the '200 Young South Africans' in the Agriculture category, an initiative that spotlights emerging talent. The student is the founder of MycoFeeds, a pioneering enterprise dedicated to addressing food waste and food insecurity in South Africa. This innovative venture converts food waste into high-quality oyster mushrooms, thereby providing a sustainable source of nutrition and actively promoting environmentally conscious farming practices.

The SkillsXccelerate Programme initiated by the Department of Entrepreneurial Studies and Management represents a bold reimagining of Work-Integrated Learning for Business Administration

students, transitioning beyond traditional placements to purposeful, project-based engagement within real-world industry contexts. This year, 196 final-year students participated, engaging in structured learning experiences across a diverse range of organizations in KwaZulu-Natal. The initiative strategically combined multiple learning modalities to develop future-ready competencies. Students completed between four and sixteen industry-relevant online courses, covering essential topics such as AI, cybersecurity, entrepreneurship, customer service, and project management. They also benefited from one-on-one mentorship from industry professionals and experts, significantly advancing personal growth, career readiness, and the acquisition of industry-specific skills. Entrepreneurial and intrapreneurial challenges offered hands-on opportunities to solve authentic problems and generate tangible value, while reflective storytelling through vlogs allowed students to document their learning journeys, critically reflect on experiences, and capture concrete evidence of professional growth. SkillsXccelerate is characterized by its student-driven, industry-aligned, and outcome-focused approach. Through the strategic integration of structured online learning, dedicated mentorship, and practical industry projects, the programme effectively ensures that its graduates are not only knowledgeable but also highly skilled, confident, and thoroughly equipped to navigate the complexities of a rapidly changing professional landscape.

Through these industry-specific projects and research initiatives, DUT demonstrates its deep commitment to applied research and innovation, underscored by its direct engagement in industry-specific projects and significant contributions to real-world challenges. Key initiatives include active participation in regional policy development through the Department of Town and Regional Planning's role in the KwaZulu-Natal Spatial Planning and Land Use Management Bill review, and critical doctoral research, such as the Electrical Power Engineering department's collaboration with Transnet on railway system harmonics. Furthermore, the university fosters student-led innovation, exemplified by an Auditing and Taxation student's nationally recognized agricultural enterprise addressing food waste, and the transformative SkillsXccelerate programme, which redefines Work Integrated Learning for Business Administration students through project-based engagement, online courses, and intensive industry mentorship along with the Horticulture department's vital research on urban green spaces for eThekweni Municipality. Collectively, these diverse endeavors highlight DUT's strategic imperative to address pressing industry needs, cultivate highly skilled graduates, and drive impactful, sustainable solutions that align with regional development and global best practices.

2.4.3 Knowledge Transfer and Technology Commercialization

The Department of Electrical Power Engineering continued its work on the Grey Water Recycling Project during the third quarter. Significant progress was made in designing a grey water recycling system intended for installation in the S Block. This innovative system is engineered to collect grey water from wash basins in the S Block toilets, treat it, and then repurpose it for toilet cisterns. A prototype of the recycling plant, successfully constructed in the laboratory, underwent testing with water contaminated by



Students participating in a structured field immersion at the Dube TradePort Special Economic Zone, supported under the SkillsXccelerate Programme.

washing detergents, leaves, and sand. While the recycled water visually appeared clear and clean, further water quality testing is still required. The Technology Transfer and Innovation Unit (TTI) has initiated a commercialization profile for this project, and two patents arising from this initiative, authored by a departmental researcher, have successfully passed the initial review phase. The project offers departmental staff a practical platform for applied research in process control, concurrently enhancing student learning through live projects integrated into the Process/Water, Controls, and Sustainability modules. Furthermore, the system functions as a demonstration site for industry visitors, supports outreach workshops on water-wise practices, and visibly exemplifies Sustainable Development Goal initiatives on campus. The project is led by a departmental researcher as Project/Design Leader, with another researcher overseeing planning and installation, and a contributor from Chemical Engineering, all supported by the TTI.

In the Department of Chemistry, a departmental researcher, in collaboration with TTI and Innobiz, is actively developing sustainable sanitary pads utilizing banana fibers and hydrogel, thereby advancing innovation in eco-friendly materials.

The Department of Textile Science and Apparel Technology hosted a dedicated presentation session on sustainability within the clothing industry. The session included a presentation by an industry leader in sustainability, who discussed current industry expectations, innovative solutions, and inherent challenges. A former advanced diploma student also contributed by sharing insights into

practical sustainability practices. Student groups showcased their contributions to a current departmental project-based learning initiative focused on establishing on-campus collection stations for used denim, which is then prepared for recycling. Additionally, the department is collaborating with lecturers from a partner institution in Hamburg on a '2nd Life' project involving third-year Apparel students. This project is integrated into departmental classes under the supervision and guidance of academic staff, providing students with practical experience in sustainable apparel production and circular economy practices.

These initiatives comprehensively illustrate DUT's proactive engagement in knowledge transfer and technology commercialization, translating academic innovation into tangible, real-world applications. Key initiatives include the Department of Electrical Power Engineering's Grey Water Recycling Project, which has advanced to patent application, demonstrating a practical approach to water conservation and offering a platform for applied research and student learning. Concurrently, the Department of Chemistry is pioneering sustainable materials through the development of sanitary pads from banana fibers and hydrogel, in collaboration with the Technology Transfer and Innovation Department and Innobiz. The Department of Textile Science and Apparel Technology further reinforces this commitment by fostering sustainability within the clothing industry through industry speaker sessions, student projects on denim recycling, and international collaborations on circular economy practices. These diverse efforts collectively underscore DUT's strategic focus on





Sithandiwe Hlongwane, showcasing at the Korea Import Fair.

driving innovation, supporting technology commercialization, and actively contributing to sustainable development goals through its research and educational programmes.

2.5. COMMUNITY AND SOCIAL ENGAGEMENT

2.5.1 Community Outreach and Development Programmes

During the third quarter, various DUT departments conducted extensive outreach and information sessions at numerous schools, effectively engaging learners and their communities. These initiatives, coordinated through the Faculty of Engineering and the Built Environment and its Community Engagement Committee, included targeted career days and expos at schools such as Scottburgh High School and Northlands Girls' High School, introducing Grade 9–12 learners to diverse career paths in fields like civil engineering, geomatics, and electrical power engineering. The Department of Electrical Power Engineering also extended its reach to Esizibeni SVS High School and facilitated a Career Guidance Programme for the Mathulini Communal Property Association. These engagements were crucial in providing learners and their parents with informed guidance on aligning subject choices with future academic pursuits and exploring professional trajectories. A significant collaborative effort with DUT Student Recruitment and the Office of the Executive Director Technical Services Cluster Support Services also led to the impactful “Women in Science: Shaping Tomorrow's Leaders” event at the Durban ICC, which successfully reached thousands of learners and prominently highlighted educational and career opportunities for women in science and engineering fields, including participation in the eThekweni Municipality Women in Science Expo.

The Industrial Engineering Department successfully hosted the Empowering Women in Engineering and Built Environment



Learner attending Ixopo Career Day.



Attendees of the Engineering and Built the Environment Women in Engineering Celebration.

(WEBE) Programme, in August 2025. This initiative was specifically designed to foster inclusivity, academic excellence, and industry readiness within Faculty of EBE, bringing together staff, students, industry partners, and community stakeholders. The programme actively addressed challenges faced by women in engineering, concurrently providing valuable networking, mentorship, and skills development opportunities. Key components included inspiring keynote addresses, motivational talks, and practical workshops on digital skills, professional development, and career planning. Panel discussions delved into critical topics such as gender equality, leadership in engineering, and prevailing industry expectations, further complemented by community engagement initiatives like a sanitary pack drive and structured mentoring sessions. The extensive list of partners included SALGA, the Council for the Built Environment (CBE), MISA, various industry professionals, municipal engineers, and community organizations dedicated to women empowerment. Overall, the programme significantly strengthened staff collaboration, expanded crucial mentorship opportunities, enhanced students' professional development and industry exposure, and provided tangible benefits to communities through targeted outreach initiatives.

The Department of Architecture continues to lead a Project-Based Learning and Design Thinking initiative at Inanda Seminary School, specifically focused on designing a new girls' dormitory. A site visit was completed in August 2025, with the interdisciplinary project team, comprising multiple DUT departments, now finalized and further site visits planned. Led by a departmental lecturer

and an administrative assistant, this initiative provides students with invaluable real-world experience, enhances professional skills through interdisciplinary collaboration, contributes to improving local infrastructure, creates potential job opportunities, and supports broader social and economic upliftment.

The Department of Electronic and Computer Engineering maintained its collaboration with the Department of IT and Informatics on RoboGirl 2025, a STEM initiative designed to empower Grade 11 schoolgirls through hands-on MicroPython programming for embedded microcontrollers. Several DUT staff members, including the Head of Department, are actively involved, alongside external partners such as Lenovo, Toyota, and various participating secondary schools. Significant progress toward the December 2025 STEM initiative continued throughout the third quarter.

The Faculty of Accounting and Informatics, in partnership with MICTSETA, celebrated the graduation of the first cohort of learners who successfully completed the Short Learning Programme in Machine Learning at Coastal and Esayidi TVET Colleges. Principals of both colleges lauded the life-changing opportunities provided, while MICTSETA representatives emphasized the critical importance of applying and refining acquired skills to secure employment and foster new job opportunities. The Faculty consistently demonstrates its commitment to fostering innovation, enhancing employability, and promoting community development. Students from the faculty's ARM Engage Student Club continued their active participation in



digital skills community outreach programmes.

The Department of Marketing and Retail hosted a Career Day as part of its School Engagement Project on in September 2025 at Sastri College. Learners from Sastri College, Hunt Road Secondary, Overport Secondary, and Durban Girls Secondary attended, engaging in sessions facilitated by departmental experts on building a robust career plan. The session highlighted effective strategies for career planning, connecting aspirations with actionable steps, leadership development through goal setting, and practical approaches to gaining experience and building a strong CV. Learners were also introduced to design thinking principles, enabling them to approach business challenges with creativity, empathy, and innovation while remaining grounded in sound marketing practices.

A researcher from ICON, served as a judge at the KwaZulu-Natal Central Regional Science Fair of the Eskom Expo for Young Scientists, held in August 2025 at the University of KwaZulu-Natal, Edgewood Campus. Endorsed by the Departments of Basic Education and Science and Technology, the Expo stands as South Africa's premier science fair, playing a crucial role in supporting the national Mathematics, Science, and Technology strategy. Another researcher further demonstrated a commitment to social welfare and environmental education through dedicated initiatives at Gezangane Primary School in iNteke, Tafelkop.

Innobiz DUT actively fosters entrepreneurship and community development through various initiatives. Its participation in the Continental Student Leadership Summit, hosted by the DUT SRC, aimed to nurture young African entrepreneurs and future leaders, featuring a panel discussion led by a program coordinator and insights from serial entrepreneurs on their journeys to sustainable business creation. Concurrently, the Innobiz Community Engagement team conducted a comprehensive five-day field visit to Nkandla to assess the impact of the Grow and Thrive School Entrepreneurship Learning Garden Challenge. This significant engagement involved sixteen adopted schools, reaching an indirect audience of 7,459 learners and directly involving 1,201 learners, with produce donated to 288 disadvantaged children. Notably, sixteen participating schools reported financial benefits from their garden activities, involving over 10,000 seedlings planted across approximately 40 hectares. This program consistently provides valuable opportunities for youth leadership, innovation, and entrepreneurship, further exemplified by Innobiz's donation of 200 green pepper seedlings to the Emseni Old Age Home during Nelson Mandela Month, supporting the '67 Minutes' initiative.

The DUT Community Engagement Office, in collaboration with various departments and external partners, championed a wide array of impactful initiatives aimed at community upliftment and educational enhancement. This included co-hosting the Mahlabathini Science Week in July 2025 with the Department of Chemistry, which delivered science workshops to over 1,600 learners from 50 high schools in Ulundi, significantly boosting engagement in Physical Sciences and contributing to an improved matric pass rate. The long-standing Bergville Literacy Programme, now in its third year and supported by the DUT's Writing Centre and Library Unit, continued to foster literacy and critical thinking skills in rural communities, distributing books to six primary

schools in July 2025 and planning a 'Bookathon' for November. Furthermore, the Community Engagement Office partnered with the DUT Enterprise Risk Management Unit, the KwaZulu-Natal Department of Education, and the Bergville Circuit Management Centre to host the Bergville Risk Management Workshop in July 2025, empowering over 100 school principals with strategies to enhance safety and performance. The office also directly hosted the 'Streamlining Ethics for Community-Engaged Scholarship' workshop in August 2025, providing a vital platform for reflecting on ethical practices in academic community engagement. Collaborative efforts extended to the Department of Video Technology for the 'Empower Her Essentials Outreach Programme' in August 2025 at Gcinimfundo Secondary School, providing essential resources and career guidance to young girls. Additionally, the DUT Community Engagement, in partnership with the Young Leaders Academy and IQRAA Trust, hosted the 'Keys to Excellence Training Programme' in September 2025, equipping students with crucial skills for a future shaped by AI and innovation.

The Student Recruitment Unit conducted an impressive 87 school visits, reaching a total of 7,999 learners, and successfully hosted key events such as the annual Science Show and the Principals' Workshop. Furthermore, DUT actively participated in the Women's Day Fun Run and co-hosted the Ixopo Career Day, specifically benefiting rural learners. Overall, the community and educational engagements during the quarter successfully reached 9,886 learners and educators.

Overall, DUT demonstrates a robust and multifaceted commitment to community outreach and development, driven by the collaborative efforts of its Community Engagement Office, academic departments, and external partners. These programmes span diverse areas, including extensive educational outreach through school visits, career guidance sessions, and STEM initiatives, designed to inspire learners and equip them with future-ready skills. Specific efforts include impactful science workshops in rural areas that have contributed to improved matric pass rates, and literacy programmes fostering reading and critical thinking. Furthermore, the university actively promotes empowerment and entrepreneurship through initiatives like the 'Empowering Women in Engineering and Built Environment' programme, Innobiz's support for young African entrepreneurs, and the 'Keys to Excellence Training Programme' for students. The institution also addresses critical societal needs by supporting efforts against gender-based violence, enhancing food security, improving local infrastructure, and providing risk management training for school principals. These integrated activities, which also include a focus on ethical practices in community-engaged scholarship, collectively highlight DUT's strategic approach to fostering academic excellence, practical skill development, social welfare, and sustainable community impact.

2.5.2 Social Responsibility Projects

The Department of Civil Engineering Midlands continues to advance the NS4 Recycling Center Project, a project-based learning initiative in which students design a recycling center informed by DUT's recyclable waste generation. Through site visits and consultations, students gain practical insights into establishing a recycling center and understanding the importance of recycling. Staff members from



Adv Vahed, Young Leaders Academy, Dr Mahmoud Youssef Baker, Chairman of IQRAA TRUST and DUT Ms Phumzile Xulu, with students who attended of the Keys to Excellence Training.

the SAICE Student Chapter are actively supporting this project.

The Department of Chemical Engineering maintains its engagement with the Springfield Civic and Ratepayers Association, following initial interactions in the second quarter. The department is currently awaiting a draft booklet from SCRA, while the Department of Textile Design has been approached to assist with the production of required 'GO Bags'. The project task team comprises members from various departments, including Chemical Engineering, the Department of Co-operative Education, and representatives from SCRA.

CSERI launched a Project-Based Learning and Design Thinking initiative in collaboration with the DUT Department of Marketing and Retail, engaging nearly 200 students. Facilitated by CSERI's Business Development Officer, the workshop trained second-year Marketing students to think creatively, understand all five stages of the design thinking process, and prepare for real-world problem-solving. Students were grouped and paired with 20 small businesses incubated at CSERI, and a subsequent meet-and-greet session allowed them to apply classroom theory in practical settings, collaborating with entrepreneurs from sectors including bakery, beauty, construction, clothing, finance, manufacturing, and IT. This initiative provided students with industry exposure, offered fresh marketing perspectives to entrepreneurs, and supported students' preparation for professional careers.

Environmental stewardship remained a central focus during Arbor Day at Gezangane Primary School under the banner "MY TREE, MY OXYGEN, PLANT YOURS TODAY." ICON, in collaboration with local partners, led a successful initiative promoting environmental awareness and community greening, engaging residents in hands-on activities to create a sustainable impact. Gezangane Primary, home to 644 learners, faces infrastructure challenges and limited green spaces. The initiative aimed to transform the school environment through tree planting, the establishment of a vegetable garden, and the donation of watering cans to ensure sustainability. Academic

partnerships were central to the project, with ICON collaborating with DUT's Horticulture Department to ensure technical consistency, while engagement with the eThekweni Municipality aligned the initiative with DUT's ENVISION2030 strategy and local policy frameworks. National and local stakeholders contributed expertise, resources, and lived experiences, including the eThekweni Municipality's Natural Resource Division, the Department of Economic Development, Tourism, and Environmental Affairs, traditional leaders, SAPS, religious leaders, the tourism sector, Gift of the Givers, students, and community members. Outcomes included the planting of indigenous trees, the establishment of vegetable gardens, and the cultivation of environmental stewardship among learners, fostering a sense of responsibility and pride. The event demonstrated the power of collaborative engagement, highlighting how diverse stakeholders working toward a shared goal can achieve meaningful and sustainable social and environmental impact.

Innobiz DUT, in collaboration with the Moses Kotane Research Institute, the KwaZulu-Natal Provincial Government, the Department of Economic Development, Tourism, and Environmental Affairs, and the Nkandla Local Municipality, officially launched the Vumanhlamvu Digital Centre and the Adopt a School Entrepreneurship Programme at the Vumanhlamvu Community Hall. This initiative strategically empowers rural communities through digital inclusion, innovation, and entrepreneurship, with digital centres serving as hubs for skills development, enterprise support, mentorship, and access to innovation infrastructure. During the launch, Innobiz DUT also recognized the creativity and sustainability efforts of students and teachers from Vumanhlamvu Primary, Ntolwane Primary, and Mnyakanya High Schools through awards for 'The Grow and Thrive School Garden Challenge'. Complementing these efforts, the Star Saver Financial Literacy Programme, delivered by Innobiz DUT in collaboration with Nedbank, has successfully expanded into Nkandla schools, reaching 18 adopted schools and engaging over 2,000 learners with interactive lessons on saving, budgeting, spending, and investing. This



programme instills early financial literacy to support responsible money management, aligning with DUT's ENVISION2030 strategy by emphasizing education as a vehicle for economic empowerment and community development, thereby preparing future generations for financial resilience.

Collectively, the social responsibility projects undertaken by DUT's departments and centers demonstrate a broad commitment to addressing pressing societal needs through applied learning and community engagement. These initiatives range from advancing practical solutions like the NS4 Recycling Center and supporting civic associations, to fostering entrepreneurship and digital inclusion in rural communities through the Vumanhlamvu Digital Centre and Adopt a School Entrepreneurship Programme. Significant efforts are also directed towards financial literacy via the Star Saver Programme and environmental stewardship through Arbor Day initiatives, alongside empowering students with design thinking and real-world business experience. These projects consistently highlight collaborative partnerships with local government, industry, and community organizations, underscoring DUT's dedication to sustainable development, economic empowerment, and skill development, thereby making a tangible difference in the communities it serves.

2.5.3 Partnerships with Local Communities and Organizations

During the third quarter, the Department of Civil Engineering Midlands conducted a road construction site visit at Old Main Road, Edendale, involving both staff and senior students. During the visit, students engaged with the site manager and gained exposure to the processes involved in repairing roads, sidewalks, bridges, and stormwater channels. This initiative was executed in partnership with the Department of Co-operative Governance and Sinothando Construction. The department also facilitated staff placements with TLC Motors within the motor repair industry, providing mechanical technology technicians with exposure to current developments and car service processes. This placement was carried out in collaboration with the DUT School of Education.

Progress continued on the Edendale Wetland Project, a Project-Based Learning and Design Thinking initiative. Stakeholder engagement to prepare for student participation in Semester 2 took place in June 2025, with activities scheduled for the semester. Students will work with key stakeholders in the Edendale area to understand the usage and challenges of the wetlands and propose practical solutions. The project aims to equip students with practical skills, critical thinking, and a sense of social justice by integrating academic knowledge with community-oriented projects. The engagement team facilitates collaboration among students, staff, industry mentors, and the local community, while coordinating project activities, managing stakeholder relationships, ensuring inclusive participation, and aligning outcomes with academic objectives and community needs. Ethical engagement, clear communication, and sustained support throughout the project are emphasized, fostering respectful partnerships that value local knowledge while delivering tangible environmental and social benefits. External partners include the KZN Department of Economic Development, Tourism and Environmental Affairs,

Greater Edendale Mall, GroundTruth, DUCT, uMngeni-uThukela Water, Msunduzi Municipality, and local NPOs and NGOs.

Industry placements for students also advanced during the third quarter. DIBESI and DICVI students, either graduates or those with lighter academic loads, were placed in the N3 project managed by SANRAL in collaboration with the DUT School of Governance. Students benefited from practical experience, with many securing employments with consultants following their placements. Departmental staff provided coordination, partnership development, supervision, and student support throughout the placements. These collaborative activities enhanced employability, professional identity, confidence, networking, mentorship opportunities, motivation, and retention, while generating social and economic impact.

The Department of Town and Regional Planning engaged with the Nazareth community in Marianhill to assist with land use analysis of open spaces, informing decisions on conservancy or development allocation. The initial meeting and site visit occurred in early August 2025.

In Physics, the department established a partnership with Sastri College, delivering a series of lessons to Grade 12 students to prepare them for trial examinations. Staff also participated in the Maths and Science Fair at Sastri College and will provide consultation on equipment requirements for the college's new Physics laboratory. Additionally, the department will supply Science textbooks to Sastri College's Physical Sciences and Mathematics Departments as part of DUT's STEM textbook drive.

The Department of Auditing and Taxation engaged with small businesses in the eThekweni municipality, partnering with Mbasane Women in Technology to upskill learners and create funding opportunities. Similarly, the Department of ICM continues to run the Trash to Cash project, promoting a circular economy by converting waste into usable jewellery. CSERI collaborated with ABSA Bank to deliver a funding readiness workshop for Durban SMEs, covering business banking, bank products, and fundable business development, providing SMEs with critical insights into leveraging banking services effectively.

Gezangane School remained a focal point for community outreach for ICON, with the programme directly involving DUT students, learners, community members, the eThekweni Municipality, and FMS faculty members. This initiative strengthened collaborative relationships, establishing ICON as a trusted partner in youth development and receiving positive feedback for future engagement. Similarly, a strategic partnership with Ubumbano, a Newcastle LGBTQ+ organisation, delivered impactful workshops that empowered members and demonstrated the value of cross-community collaboration.

The Department of Entrepreneurial Studies and Management contributed to the Vaal University of Technology's (VUT) Annual Ecotourism Seminar in August 2025. A keynote address titled "Entrepreneurship as a Mindset Beyond Business Creation" was delivered, emphasizing that entrepreneurship extends beyond starting businesses to cultivating curiosity, recognizing opportunities, demonstrating resilience, and creating impact for others. The address highlighted both pathways of entrepreneurship,



CETA stand at the DUT World Of Work Exhibition.

entrepreneurs establishing new ventures and intrapreneurs driving innovation within organizations, underscoring that both require the same entrepreneurial mindset and contribute to social and economic development. The keynote also reflected on cross-disciplinary integration in higher education, demonstrating the importance of equipping students as problem-solvers and innovators, with ripple effects that support local communities and strengthen entrepreneurial ecosystems. This engagement strengthened partnerships between DUT and VUT, contributed to knowledge-sharing, positioned DUT as a contributor to national dialogues on entrepreneurship education, and reinforced DUT's commitment to preparing students who are adaptive, resilient, and socially responsive, in alignment with ENVISION2030 and relevant SDGs."

The Horticulture Department highlighted the Arbor Day Tree Planting initiative, which aims to beautify school grounds while fostering community engagement. Planning and collaboration with municipal departments and the DUT Horticulture Department have resulted in a promising new partnership, enhancing the project's scope and potential for sustainable impact. Stakeholders expressed enthusiasm, with the next meeting scheduled for 28 July 2025 and the tree planting day planned for 1 September 2025.

The Short Course Unit conducted NEMISA Mobile Digital Literacy Training as part of the partnership between NEMISA and DUT, focusing on increasing digital literacy across South Africa, with 76 participants, including unemployed youth from Inanda, Cato Ridge, Umlazi, and La Mercy, were trained, in July 2025. Also, 163 participants from Nkandla, Greytown, Maphumulo, Richards Bay, and Hlabisa received training, including women survivors of gender-based violence housed in a Pietermaritzburg shelter, in August 2025. An additional 95 participants were trained, including unemployed youth from Umlazi and Umfolozi, as well as DUT marketing students,

by September 2025. Collaborating with the KZN Department of Economic Development, Tourism, and Environmental Affairs, DUT recruited participants and secured training venues. Overall, SCU trained 334 participants during the third quarter, bringing the total number trained for the year, January to September 2025, to 736.

The Community Engagement Office, in collaboration with Albaraka Bank and Bringer of Light to Young Souls, hosted the Ixopo Matric Career Day in August 2025 at Jolivet Hall. Over 250 learners from five schools participated, gaining guidance on tertiary education, career opportunities, entrepreneurship, and educational pathways, resulting in an empowering and meaningful experience.

Through a wide array of strategic partnerships, DUT consistently demonstrates its commitment to enhancing education, fostering employability, and driving sustainable development within local communities. These collaborations span from providing students with invaluable practical experience through site visits, industry placements, and project-based learning initiatives like the Edendale Wetland Project, to developing critical skills in areas such as road construction, motor repair, and land use analysis. Furthermore, DUT departments actively engage in community upliftment through educational support at schools like Sastri College, financial literacy programs for SMEs, waste-to-value projects, and digital literacy training for unemployed youth and vulnerable groups. Initiatives such as the Ixopo Matric Career Day and the Entrepreneurship keynote address at VUT underscore DUT's role in career guidance and thought leadership, while environmental efforts like the Arbor Day Tree Planting foster community greening. By collaborating with local government, industry, NPOs, and other educational institutions, DUT not only provides practical application for academic knowledge but also creates tangible social and economic impacts, reinforcing its position as a dedicated and responsive partner in community and organizational development.



2.6. INTERNATIONAL PARTNERSHIPS

2.6.1 Collaborative Agreements with International Universities and Institutions

The Maritime Studies Department has significantly strengthened its collaboration with both national and international stakeholders within the maritime sector. Since the start of the year, the department has initiated partnerships with eight higher education institutions, currently assessing the strategic relevance and potential impact of each collaboration. Notable partners include the University of South Africa (UNISA), Takoradi Technical University (TTU) in Ghana, Namibia University of Science and Technology (NUST), the Arab Academy for Science, Technology and Maritime Transport in Egypt, Dar Es Salaam Maritime Institute (AASMT) in Tanzania, and the World Maritime University (WMU) in Sweden. Engagements with UNISA, NUST, and WMU were conducted in person, while discussions with TTU, AASMT, and DMI took place virtually. These interactions represent a strategic step toward fostering academic exchange, research collaboration, and capacity building across the maritime education landscape.”

In Physics, an international collaboration was established with an Associate Professor in the Educational Development Unit at the Academy of Future Education, Suzhou Industrial Park, China. Additionally, the department developed partnerships with international academics from the University of Cincinnati and the Université Pédagogique Nationale.

The Department of Management Accounting is finalising accreditation with the Chartered Institute of Management Accountants, ensuring the highest professional standards in its programmes. Meanwhile, the Department of Financial Accounting has established partnerships with UiTM and KNUST, further strengthening the Faculty’s regional and international academic collaborations. The Faculty is also exploring potential academic and research collaborations with Adam Mickiewicz University in Poland.

The Vice Chancellor of Sunyani Technical University in Ghana visited the FAI in August 2025, where the Executive Dean welcomed the delegation and led a tour of the Faculty’s laboratories. Discussions during the visit focused on potential collaboration opportunities, including academic partnerships, research initiatives, and student exchange programmes to mutually benefit both institutions.

Under the Erasmus+ KA171 Student Exchange Program, three Innobiz DUT incubates were selected for the prestigious International Mobility Program at JAMK University of Applied Sciences in Finland. This initiative provides student entrepreneurs with exposure to international entrepreneurial and innovation learning. Selected students include the founder of Enigmatic Cotton; the founder of Thothelihle Bee Farming; and the founder of The Man Carve and Zakhe Academy of Leadership. This achievement reflects DUT’s commitment, under ENVISION2030, to developing globally engaged citizens who establish mutually beneficial partnerships.

The IWWT hosted a delegation from the Indian Institute of Technology Roorkee at DUT for the ceremonial signing of a Memorandum of Understanding in August 2025. This MoU represents a significant step in strengthening academic and research collaborations, particularly in advancing innovative solutions for water and wastewater treatment technologies. IWWT also hosted the Vice Chancellor of the Technical University of Mombasa (TUM). The Vice Chancellor, principal investigator of the AJ CORE project in collaboration with IWWT, expressed interest in deepening ties with the institute, focusing on research partnerships, capacity development, and staff exchange opportunities. Proposed initiatives include TUM staff spending time at IWWT to gain practical experience in algal biotechnology techniques. During the visit, the Vice Chancellor toured IWWT’s laboratories, gaining insight into the institute’s state-of-the-art facilities and ongoing research projects. Both parties emphasized the mutual benefits of collaboration through shared expertise, training, and research opportunities for staff and students.

The Department of Entrepreneurship participated in the third instalment of a six-part national Fulbright Specialist Workshop. This workshop aimed at embedding entrepreneurship into the curriculum across all 26 South African universities. An international expert in entrepreneurship and curriculum development facilitated the workshop, which focused on creating student-centred entrepreneurial ecosystems within higher education institutions in KwaZulu-Natal. Interactive sessions explored curriculum design, pedagogical innovation, and collaborative strategy development for embedding entrepreneurship across institutional structures, aligning policies to support sustainable entrepreneurship education. Key outcomes included gaining practical strategies for embedding entrepreneurship modules, exploring innovative teaching methods to nurture entrepreneurial mindsets, and strengthening connections with academic peers and industry specialists. The workshop enhanced understanding of entrepreneurial ecosystem development within higher education, providing actionable insights to drive curriculum innovation and institutional support for entrepreneurship initiatives. It reinforced the importance of collaborative, interdisciplinary, and sustainable approaches in preparing students to become innovative, entrepreneurial, and socially responsible leaders.

DUT also formalised Memoranda of Understanding with five universities: Ibn Tofail University in Morocco, Universidad Tecnológica Empresarial de Guayaquil in Ecuador, and Karadeniz Technical University, Gedik University, and Gebze Teknik Universitesi in Turkey. Engagement with an additional 42 institutions spanning Africa, Asia, Europe, and the Americas further broadens the university’s global reach. Moreover, 22 additional partnerships were initiated during participation in the AAU conference, extending DUT’s international collaborations across multiple continents.

DUT’s proactive engagement in a multitude of international collaborations significantly amplifies its global footprint and academic influence. Through formalised Memoranda of Understanding with diverse universities across Africa, Europe, Asia, and the Americas, and participation in esteemed international programs, DUT is fostering rich academic exchange, collaborative research, and critical capacity

building. These partnerships provide invaluable international exposure for students, exemplified by initiatives like the Erasmus+ student exchange program for incubates, and enhance professional standards, such as the Management Accounting department's accreditation efforts. Furthermore, DUT's involvement in international workshops on entrepreneurship education and strategic alliances for water treatment and renewable energy demonstrates its commitment to driving innovation, contributing to global dialogues, and addressing pressing sustainable development challenges. These varied collaborations reinforce DUT's strategic vision of developing globally-engaged citizens, fostering cutting-edge research, and ensuring its academic programs meet international benchmarks.

2.6.2 Student and Faculty Exchange Programmes

The Civil Engineering and Geomatics Department at DUT welcomed French exchange students for Semester 2 of the year with a formal orientation in July. This programme introduced students to academic structures, available resources, and cultural integration, ensuring they were well-prepared for their studies. Enrolled in DUT's internationally accredited Bachelor of Engineering Technology programme, the students are pursuing modules in structural analysis, hydrology, geotechnical engineering, and foundational civil engineering.

The Maritime Studies Department continues to strengthen partnerships with higher education institutions at local, regional, and continental levels, yielding promising outcomes in staff and student exchanges, joint research initiatives, and other strategic objectives. In September, three department members, accompanied by the Executive Dean, visited the Namibia University of Science and Technology (NUST) to advance a joint initiative focused on offering short courses and developing a collaborative Marine Engineering Programme. This project will ultimately lead to the establishment of a Bachelor of Technology in Marine Engineering and the creation of a Survival Centre at NUST.

Five students from the Faculty of Accounting and Informatics represented DUT at the Global Digital Forum in Nizhny Novgorod, Russia. The conference focused on the future of technology, emphasizing AI innovations, ethical and inclusive technological practices, and smart city developments. The event also fostered global collaboration, connecting students, policymakers, and industry experts, while offering rich cultural experiences that highlighted Russia's heritage.

Innobiz DUT facilitated a Design Thinking Workshop for the Department of Operations and Quality Management, tailored for third-year students. The workshop introduced problem-solving frameworks, creative ideation methods, and innovation techniques, emphasizing how design thinking can be applied to entrepreneurial ventures. Similarly, a presentation on design thinking was delivered to Civil Engineering students in Durban to encourage innovation and creative problem-solving within technical disciplines. Through the Cultivating Entrepreneurship Mindset event hosted by Student Housing, Innobiz raised awareness among students about entrepreneurship and the opportunities available at DUT's Centre for Entrepreneurship and Innovation. This initiative aimed to inspire

students and provide guidance on entrepreneurship as a viable career path.

The Department of Human Resources Management hosted its Annual Entrepreneurship Summit, designed to mentor and empower student entrepreneurs. The summit provided an interactive platform for students to explore ideas, engage with industry stakeholders, and expand their entrepreneurial networks. As part of the summit, a presentation highlighted the services and support available through the Innobiz DUT, detailing resources to nurture entrepreneurial potential and support the development of sustainable business ventures.

Under the Erasmus+ KA171 Student Exchange Program, three Innobiz DUT incubates were selected for the prestigious International Mobility Program at JAMK University of Applied Sciences in Finland. The program offers student entrepreneurs an opportunity to gain international entrepreneurial and innovation experience. Selected participants include the founder of Enigmatic Cotton; the founder of Thothelihle Bee Farming; and the founder of The Man Carve and Zakhe Academy of Leadership. This initiative underscores DUT's commitment under ENVISION2030 to fostering global opportunities and preparing students to become engaged and productive global citizens capable of establishing mutually beneficial partnerships.

A guest speaker participated in the SWEEP – G20 Women Leaders Webinar, hosted by Innobiz DUT, in July 2025. Their presentation, titled "Empowering Student Entrepreneurs in Higher Education Institutions," focused on the integration of entrepreneurship into academic curricula, the establishment of innovation hubs, and the promotion of gender-inclusive strategies in entrepreneurial ecosystems. This contribution highlighted the vital role of universities in cultivating entrepreneurial mindsets and supporting student-led ventures. The engagement positioned DUT within a global dialogue alongside speakers from Liberia, Thailand, Indonesia, and the United States, enhancing the university's visibility in international networks dedicated to women's economic inclusion, innovation, and entrepreneurship education.

The impact of this engagement was multifaceted. DUT was positioned as a thought leader in entrepreneurship education and gender-inclusive innovation, strengthening its global profile. The webinar facilitated strategic networking, opening pathways for future collaboration, research exchange, and student engagement. The presentation aligned with DUT's ENVISION2030 focus on developing adaptive, innovative, and socially responsive graduates while contributing to Sustainable Development Goals 4, 5, 8, and 9, encompassing Quality Education, Gender Equality, Decent Work and Economic Growth, and Industry, Innovation, and Infrastructure. The engagement also reinforced DUT's entrepreneurship and innovation agenda by highlighting the integration of innovation hubs and entrepreneurship education into the higher education curriculum. Overall, the initiative contributed to a global conversation, reinforcing DUT's commitment to preparing graduates who embody leadership, inclusivity, and innovation in addressing both local and international challenges.

In essence, DUT's robust student and faculty exchange programmes, coupled with internal initiatives, are instrumental in fostering





Delegates at the DUT ICT & Society Conference.

a globally engaged and entrepreneurial academic community. These initiatives span welcoming international exchange students, facilitating staff visits for programme development and research collaboration, and enabling student participation in prominent global forums. Furthermore, DUT actively promotes an entrepreneurial mindset through dedicated workshops and summits, providing students with essential skills and exposure. Participation in prestigious international mobility programmes, such as Erasmus+, and faculty engagement in global dialogues on entrepreneurship and innovation, underscore DUT's commitment to its ENVISION2030 goals. This collective effort ensures that students and staff gain invaluable international experience, contribute to cutting-edge research, and develop into adaptive, innovative, and socially responsible 'glocal' citizens, aligning with key Sustainable Development Goals.

2.6.3 Global Research Initiatives and International Conferences

Several staff members from the Department of Electrical Power Engineering presented papers at the International Conference on Science, Engineering and Business for Driving Sustainable Development Goals (SEB4SDG) in Omu-Aran, Nigeria. This participation provided an opportunity to contribute to international academic discourse on sustainability, renewable energy, and engineering innovation. Engagements with scholars and practitioners from across Africa and beyond strengthened international research collaborations, enhanced DUT's visibility and reputation in sustainability-focused research, and demonstrated the university's commitment to addressing global challenges through local solutions. For students, these interactions offered potential

pathways for future postgraduate collaborations and exchange programs with international institutions focused on SDG-related research.

Staff and students also participated in the IEEE Conference on Information Communications Technology and Society in Ballito, KwaZulu-Natal, in July. Presentations included research on the design and simulation of a solar photovoltaic system integrated with a hydrogen fuel cell storage system; hybrid multi-objective swarm intelligence and self-evolving neural networks for grid stability in renewable-heavy systems; load frequency control of an interconnected power system; and the design, simulation, and analysis of a PMSG for hydroelectric plants based on the generalized theory of electrical machines. The Department further contributed to international conferences, including the 5th International Conference on Electrical, Computer and Energy Technologies in Paris, France, and the SEB4SDG conference in Nigeria. Presentations covered topics such as enhancing photovoltaic system efficiency, control strategies for microgrid converters, smart shopping cart development using barcode and RFID technologies, optimized deep learning models for sign language recognition, comparative performance analyses of grid-connected PV systems, and intelligent energy management systems with priority-based load-shedding mechanisms.

The Department of Town and Regional Planning continues its collaboration with the University of Botswana, with an honours-level field trip scheduled for the first week of October. This seven-day study visit, involving fourth-year town planning students from both institutions, will include shared site visits, projects, and activities. The trip follows an initial collaborative engagement

held in Durban from 15–19 September, which included a five-day program on catalytic development projects hosted by the eThekweni Municipality Institute of Learning, with 2.5 days conducted in the Department's studio facilities on the Steve Biko Campus. Additionally, the department is advancing a collaborative research project with the Bartlett School of Planning at University College London, examining changing land values, land management practices, and equitable spatial transformation in Ingonyama Trust Board areas within the eThekweni Municipality. The first co-authored journal article from this project is ready for submission, with two additional articles expected to be completed by the end of the year.

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In the field of Food and Nutrition, two staff members and two PhD students participated in the 23rd International Congress of Nutrition in August. The congress, themed "Sustainable Food for Global Health," convened 3,900 delegates and featured lectures, symposia, oral presentations, and poster sessions addressing the fundamental, clinical, epidemiological, and social dimensions of nutrition.

ICON delivered a public lecture on "Public Administration, Democracy and Peacebuilding in the Democratic Republic of Congo" at Saint Augustine University of Tanzania as part of a research forum in July. ICON also partnered with the Centre



Delegates at the China TVET Cooperation Symposium 2025



for the Study of Race, Gender and Class at the University of Johannesburg for the Women for ImPACT: Innovation and Sustainability in Africa Conference in August. This hybrid event addressed Africa's pressing development challenges, including SDGs, inclusive innovation, climate change, agroecological futures, education, entrepreneurship, governance, and Africa's geopolitical positioning. A professor moderated two sessions and presented a paper, contributing to knowledge exchange, policy dialogue, and multi-sectoral collaboration aimed at empowering African communities and reinforcing the continent's global relevance.

ICON also participated in the 10th International Policy and Development in Africa Conference held in Cape Town in September. The forum convened leading academics, policymakers, and practitioners to examine governance, security, and sustainable development challenges, providing opportunities for research dissemination, engagement with cutting-edge scholarship, and strengthening international networks.

ICON's engagement extended to regional and international platforms. A staff member's lecture at Saint Augustine University reinforced DUT's commitment to knowledge dissemination and capacity building in governance and peacebuilding. As a key partner in the Women for ImPACT: Innovation and Sustainability in Africa Conference, ICON contributed to a transformative platform addressing Africa's most pressing development challenges, convening policymakers, scholars, civil society actors, and practitioners to engage in critical dialogue on innovation, sustainability, and inclusion in alignment with Agenda 2063. Similarly, researchers' participation in the IPADA conference allowed for research dissemination, engagement with contemporary scholarship, and the strengthening of international networks.

The IWWT hosted the Vice Chancellor of the Technical University of Mombasa in August. As the principal investigator of the AJ CORE project in collaboration with IWWT, the Vice Chancellor expressed interest in deepening institutional ties, with discussions focusing on strengthening collaboration in research, capacity development, and staff exchange opportunities. A proposed initiative will enable TUM staff to gain hands-on experience in algal biotechnology techniques at IWWT. The visit included a tour of IWWT's laboratories, providing insight into ongoing research projects and highlighting mutual benefits for staff and students through shared expertise, training, and collaborative research opportunities.

DUT also participated in the Times Higher Education Global Sustainable Development Congress in Istanbul, Turkey, in June, providing a strategic platform to advance the university's sustainability agenda. In addition, the university's engagement at the 16th Quadrennial General Conference of the Association of African Universities in Rabat, Morocco, in July, strengthened international networks and benchmarks, further positioning DUT as a leader in sustainability-focused research and higher education collaboration.

In summary, DUT's active participation in global research initiatives and international conferences significantly bolsters its academic standing and commitment to addressing worldwide challenges. Through presentations at esteemed conferences such as SEB4SDG, IEEE ICTAS, ICECET, ICN, and IPADA, and engagements with prominent organizations like Times Higher Education and the

Association of African Universities, DUT staff and students contribute to critical discussions on sustainability, renewable energy, information communications technology, nutrition, governance, and peacebuilding. Furthermore, strategic research collaborations with institutions like the University of Botswana, University College London, and the Technical University of Mombasa, alongside involvement in initiatives like the AJ CORE project, drive innovative solutions and foster capacity development. These efforts underscore DUT's dedication to advancing cutting-edge research, disseminating knowledge, and strengthening international networks, ultimately positioning the university as a key contributor to global sustainable development goals and academic discourse.

2.7. INNOVATION AND ENTREPRENEURSHIP

2.7.1 Innovation Hubs and Startup Incubators

The Department of Electronic and Computer Engineering continues its engagement with the Clinic Kiosk Project in collaboration with Innobiz DUT, providing practical exposure and supporting innovation-driven solutions.

CSERI continues to implement pre-incubation and incubation programmes that foster innovation and entrepreneurial growth. For the 2025/2026 cohort, approximately 60 SMEs were recruited, with 30 selected for incubation and 30 for pre-incubation, ensuring a structured pathway for business development. As part of the programme, CSERI hosted a Bootcamp to welcome the new cohort of entrepreneurs into the 12-month incubation journey. Facilitated by an expert, the session provided participants with practical business tools, guidance on the Launch League Lean Canvas, and methods for refining ideas, assessing markets, and planning finances. Entrepreneurs left the session with actionable strategies and a clear roadmap for building sustainable businesses.

The 2025/26 entrepreneur cohort also participated in an immersive design thinking workshop led by CSERI's Business Development Officer. This hands-on session equipped entrepreneurs with creative problem-solving methodologies, emphasizing customer-centric approaches. From reframing business challenges to rapid prototyping, participants gained tools to design innovative, scalable, and human-centred solutions. CSERI further strengthened entrepreneurial capacities through a Legal Issues Workshop, facilitated by a legal expert from Quattro. The session provided essential legal knowledge, covering foundational protections and practical guidance for small business sustainability.

In collaboration with ABSA Bank, CSERI hosted a funding readiness workshop for Durban SMEs. The workshop focused on business banking, fundable business models, and enterprise development, equipping participants with insights on effectively leveraging banking services to grow their businesses.

In the third quarter, Innobiz achieved significant milestones as follows: a total of 151 businesses were engaged across pre-incubation, incubation, and post-incubation phases, with operational incubated businesses collectively valued at approximately R100 million (to be verified during site visits). Approximately 200 jobs were created, while 798 students were trained, exposed

to entrepreneurial practices, and made aware of business development opportunities. Eleven student businesses were visited for verification and assessment of progress in September, and three students participated in international entrepreneurship programmes, including the Finland JAMK–DUT Erasmus+ Student Exchange Program. Five students represented DUT at the Final GISU Urban Innovation and Entrepreneurship Competition. Additionally, continuous support was provided to 30 adopted schools, engaging 3,253 learners and 75 educators through Agri and Tech for Kids initiatives.

In essence, DUT's concerted efforts in innovation and entrepreneurship are yielding tangible results, fostering a dynamic ecosystem that supports nascent businesses and cultivates entrepreneurial talent. Through structured pre-incubation and incubation programmes by CSERI, practical project-based learning, and collaborative initiatives like the Clinic Kiosk Project with INNOBIZ, the university provides comprehensive support, from ideation and legal guidance to funding readiness. These initiatives have successfully engaged numerous SMEs, created jobs, trained hundreds of students in entrepreneurial practices, and facilitated international opportunities. The broad reach, extending to adopted schools through programs like Agri and Tech for Kids, underscores DUT's commitment to embedding innovation and entrepreneurship as core tenets of its educational and community development mandate.

2.7.2 Entrepreneurship Programmes and Competitions

Advanced Diploma students in Chemistry engaged in an international entrepreneurship lecture delivered by an expert from Bangladesh in August via Teams. The lecture focused on ways students could actively participate in entrepreneurial initiatives, complementing practical learning with global perspectives. In addition, an Innovation and Entrepreneurship Coordinator was appointed for the year 2025, reinforcing the department's commitment to fostering innovation and enterprise development.

Advanced Diploma students in Financial Accounting participated in the Microsoft Challenge, while third-year Management Accounting students collaborated with lecturers on the Chartered Institute of Management Accountants case study project. Students are encouraged to engage in competitions to enhance practical experience and professional development. Notably, nine students, supported by two expert mentors, took part in the China World Skills competition, with results currently pending.

The SNP Aspiring Entrepreneurship Programme, launched in August 2025, provides a platform for students to develop, test, and grow innovative ideas into viable business ventures. The program facilitates connections with industry experts, alumni, and mentors, guiding students to build innovative and sustainable business ideas aligned with the United Nations Sustainable Development Goals.

The Innobiz DUT hosted a two-day Alumni Engagement event to reconnect with past student entrepreneurs and reaffirm support for their business journeys. The event convened current and former participants in the entrepreneurial ecosystem for discussions on business acceleration, investment opportunities,

leadership, enterprise development, and procurement pathways. Industry experts from organizations such as E Squared Investments, CSIR, SAB Foundation, and DUT Procurement shared practical strategies for scaling businesses and unlocking sustainable growth. The event celebrated alumni achievements while reinforcing DUT's ongoing commitment to mentorship, access, and a supportive entrepreneurial network.

Student entrepreneurs supported by Innobiz DUT received seed funding totaling R836,000, benefitting 24 student-led businesses in scaling their ventures. Funding is complemented by access to mentors, advisors, and entrepreneurial networks, providing essential support for early-stage business growth. Recipients are required to submit post-funding expenditure reports detailing fund utilization against set milestones, ensuring accountability and effective resource use. This initiative reflects the University's vision to produce job creators and foster a culture of entrepreneurship.

DUT students participated in the 2025 Guangzhou International Sister-City Universities Urban Entrepreneurship and Innovation Competition. The semifinals offered a platform to showcase innovative projects on an international stage. Dedicated pitch training, facilitated by the Innobiz team, helped students refine their ideas, improve presentation skills, and build confidence. Five DUT students were selected to present their businesses at the final competition scheduled for late October.

The Business Management Training hosted by the Innobiz DUT provided student entrepreneurs with practical knowledge in business management, business information systems, compliance, and marketing. Preparatory Enterprise and Supplier Development training focused on supplier readiness, compliance documentation, business profiling, and tender procedures, ensuring incubated businesses are market-ready. Business progress and funding readiness review sessions assessed compliance, traction, scalability, and financial documentation, with tailored feedback provided to address gaps and enhance funding appeal. Pitch preparation and final evaluation sessions emphasized content clarity, business viability, and persuasive delivery, with funding recommendations based on innovation, market potential, and sustainability.

Targeted workshops for GISU and EDHE competitions enhanced students' strategic thinking, presentation skills, and pitch quality, preparing them for national and international competitions. Agri Skills Training promoted urban agriculture through hands-on demonstrations, while Costing and Pricing Workshops provided guidance on financial sustainability, including cost structures, break-even analysis, profit margins, and competitive pricing strategies.

The newly appointed Enactus Executive Team for 2025–2026 attended a comprehensive leadership training hosted by Enactus South Africa at KPMG South Africa. The program focused on developing leadership qualities, strategic thinking, and an understanding of social innovation and entrepreneurship, providing actionable insights to align the team's efforts with Enactus' mission of driving sustainable change. Enactus DUT also hosted a two-week On-Campus Camp to develop entrepreneurship initiatives and prepare the team for the upcoming Enactus National Exposition. Participants refined social enterprise projects, developed strategic presentations, and engaged in leadership development and team-





building exercises to strengthen collaboration and enhance competition readiness.

In the first week of September 2025, eleven student-founded businesses in Durban were visited to gain first-hand insights into daily operations, assess progress, identify challenges and growth opportunities, and strengthen mentorship through direct engagement. The businesses included CHARGOE, PSAM Printings, Msebeyelanga Solutions, Nonkanyiso Funeral Services, Wislove Family Group, Yesterday's Gem, 4th AI Holdings, Infinity Wellness Clinic, Creative Wrap SA, Inhlanzeko Services, and Afripact. Site visits will continue until all operational businesses have been assessed.

DUT students achieved recognition in multiple competitions. In the EDHE ABSA Innovation Challenge, five students advanced to the national stage from 47 submissions. A founder placed third in the Green Innovators Pitch Competition at the Green Youth Indaba, promoting sustainable fashion using upcycled materials. Another founder won R15,000 at the FNB Monetize Your Business Competition, crediting Innobiz DUT for support in refining pitching skills. At the 10th Annual Green Youth Indaba, a founder received the Green SMME Trailblazer Award for an innovative aquaponics farming model, while another founder secured third place in the City of Cape Town Youth Pitching Competition. In June, a student launched Northbury Park Secondary's first official matric jacket, exemplifying community-focused entrepreneurship.

At the Enactus SA National Expo 2025, DUT was represented by the ThinkWaste Africa project, led by two students, and MYCO-FEEDS, represented by a student. MYCO-FEEDS achieved second place in both the Harmony Entrepreneurship for Employment and Food Security Challenge and the Ford Community Challenge. Enactus

advisors were honoured for their outstanding contributions.

The TTI Unit hosted workshops in collaboration with the Department of Trade, Industry and Competition to empower DUT researchers, academics, and professional staff with knowledge of industrial policies, trade facilitation, and economic growth support programs. An Incubation Review Workshop invited ten innovators to present project updates, assess progress, and receive mentorship to ensure successful outcomes. Projects included a Greywater Conservation System, nutraceutical peptide synthesis, nootropic nutraceutical development, and research software, all receiving individualized guidance to advance their innovations.

CSERI continued to deliver pre-incubation and incubation programmes for 2025/2026, recruiting 60 SMEs, with 30 selected for incubation and 30 for pre-incubation. The Bootcamp, facilitated by an expert, provided practical business tools, market assessment, financial planning, and structured steps for building sustainable businesses. A design thinking workshop led by CSERI's Business Development Officer equipped entrepreneurs with creative problem-solving skills and human-centred approaches. Legal Issues workshops, facilitated by a legal expert from Quattro, provided guidance on foundational legal protections, while funding readiness workshops in collaboration with ABSA Bank focused on business banking and capitalization strategies.

Key performance indicators for 2025 include 151 businesses incubated across pre-incubation, incubation, and post-incubation phases; operational businesses valued at approximately R100 million (to be verified during site visits); around 200 jobs created; 798 students trained and exposed to entrepreneurship; eleven student businesses visited for verification; three students exposed to international entrepreneurship programmes in Finland through

the JAMK–DUT Erasmus+ Student Exchange Program; five students representing DUT at the Final GISU Urban Innovation and Entrepreneurship Competition; and continuous support for 30 schools, 3,253 learners, and 75 educators through Agri and Tech for Kids initiatives.

The Department of Entrepreneurial Studies and Management continued its “Igniters’ Era” initiative, launched in 2023 and embedded in the Postgraduate Diploma in Business Administration’s Entrepreneurship module. The 2025 theme, “From Waste to Wonder: Designing a Future Where Nothing Goes to Waste,” challenges students to reimagine waste as a resource, cultivating entrepreneurial mindsets that link innovation with sustainability. Unlike conventional “trash to treasure” initiatives, this program functions as an assessed assignment requiring BA students to mentor high school learners while producing knowledge artefacts such as vlogs, pitches, and business canvases. It establishes a co-learning ecosystem where DUT students act as mentors, judges, and facilitators, while high school learners engage as innovators and entrepreneurs-in-training. The initiative embeds entrepreneurship within Green Economy and Circular Economy discourses, linking outputs to SDGs 4, 8, 9, 11, and 12. Top projects are sustained beyond the competition through Eco-Entrepreneurship Clubs and incubation opportunities, ensuring long-term impact.

The Department of Marketing and Retail integrated applied projects into its curriculum across semesters. In Semester 1, Level

3 Marketing students engaged in integrated projects covering Product Management, Pricing, and Logistics. Semester 2 activities included projects with Marketing Level 2 students on Market Environment, Market Segmentation, and Marketing Metrics in collaboration with the Centre for Social Entrepreneurship, as well as integrated projects on Marketing Communications, Brand Management, Market Planning, and Work Preparedness. These initiatives reinforce applied learning, collaboration, and industry readiness among students.

Collectively, these comprehensive entrepreneurship programmes and competitions at DUT form a vibrant ecosystem designed to empower students with the skills, knowledge, and resources needed to transform innovative ideas into sustainable ventures. From international lectures and specialized challenges like the Microsoft Challenge and CIMA case study, to structured initiatives such as the SNP Aspiring Entrepreneurship Program, students receive invaluable practical and global exposure. Innobiz plays a pivotal role, offering seed funding to numerous student-led businesses, fostering alumni engagement, and providing rigorous training in critical areas like business management, legal aspects, and pitch preparation. Significant achievements in national and international competitions, including the EDHE x ABSA Innovation Challenge, Green Innovators Pitch Competition, FNB Monetize Your Business, Green SMME Trailblazer Award, City of Cape Town Youth Pitching Competition, and the Enactus SA National Expo, highlight the entrepreneurial talent nurtured at DUT. These efforts,



further strengthened by targeted workshops, leadership training, and close mentorship through initiatives like site visits to student-founded businesses and TTI Unit workshops, underscore DUT's unwavering commitment to cultivating a generation of innovative job creators who are well-prepared to contribute to economic development and address societal challenges in alignment with global sustainability goals.

2.7.3 Technological Advancements and Patents

The Department of Electrical Power Engineering holds two patents arising from the Grey Water Recycling Project, both of which have successfully passed the initial review phase. The department also continued to make significant progress on the Hydrogen Boat Design for the University competition in Q3. A dedicated team of honours students was assigned specific project topics that directly support the design, development, and testing of a hydrogen-powered boat. A MATLAB-based simulation model was developed to assess the boat's power and energy requirements, hydrogen consumption rates, and overall system efficiency. Concurrently, an electrical system is being designed to integrate the hydrogen fuel cell, battery storage, propulsion system, and safety mechanisms.

This project provides multiple benefits: EPE staff strengthen their supervision and mentorship capacity in renewable and alternative energy technologies, while students gain practical exposure to cutting-edge hydrogen and fuel-cell systems, experience in MATLAB simulations, electrical integration, prototype testing, and collaborative work in multidisciplinary teams. These experiences equip students with the skills and knowledge required for careers in renewable energy and sustainable transport. Expert supervision and technical guidance are provided, with close collaboration with the DUT Energy Centre.

In the Department of Civil Engineering Midlands, collaboration with the DUT Short Course Unit resulted in the development of a short course titled "Understanding the Use of Computer Applications." This course aims to provide foundational knowledge in computer literacy and application skills. The short course proposal has been submitted to the Short Course Unit, and upon approval, it will establish a third-income stream for the department.

The Department of Architecture conducted a departmental session in May 2025, hosted by DUT's Short Course Unit, designed to capacitate staff on the development, approval, and submission processes for short courses. The session covered critical areas such as compliance, academic rigour, short course frameworks, institutional requirements, and the alignment of courses with societal and industry needs. Staff were guided on how to design accredited short courses, develop programmes for professional upskilling, and promote future third-stream income opportunities. This initiative was led by the TLA Committee Lead in collaboration with the DUT Short Course Unit, equipping academic staff with the knowledge and tools to expand DUT's continuing education offerings.

Collectively, these initiatives demonstrate DUT's robust commitment to fostering technological advancement, applied research, and practical skill development. From securing patents in grey water recycling and pioneering hydrogen-powered boat designs to developing essential short courses in computer applications and professional upskilling, the university actively engages in cutting-edge innovation. These efforts not only provide students with invaluable hands-on experience in renewable energy and digital literacy but also empower staff through enhanced mentorship capabilities and contribute to generating diversified income streams. Such strategic focus on technological innovation and capacity building ensures that DUT remains at the forefront of preparing a skilled workforce and contributing to sustainable solutions.



Collectively, these initiatives demonstrate DUT's robust commitment to fostering technological advancement, applied research, and practical skill development. From securing patents in grey water recycling and pioneering hydrogen-powered boat designs to developing essential short courses in computer applications and professional upskilling, the university actively engages in cutting-edge innovation.



3. THIRD-STREAM INCOME

The Faculty of Applied Sciences has actively engaged with quad-helix partners, securing significant funding to support students. Additional funding for internships has been obtained from the MICTSETA and FASSET, demonstrating a strong commitment to supporting Work-Integrated Learning students and graduate internships. Bursary funding has also been secured from SAP, reinforcing the faculty's strategy to expand financial support for its students.

Source	Amount	Purpose
Quad-helix partners	1,200,000	ICT and Engineering Programmes
SAP	2,500,000	Bursary Funding
TOTAL	3,700,000	

The Co-operative Education Unit continues to secure SETA funding to support stipends for WIL students and graduate internships. Significant contributions have been received from multiple SETAs. In total, over R32.6 million has been secured, benefiting 565 students.

SETA	Amount
Services SETA	1,800,000
LGSETA	12,190,000
merSETA	1,080,000
FOODBEV SETA	3,000,000
LGSETA (additional)	6,440,000
CHIETA	2,100,000
ETDPSETA	1,250,000
FOODBEV SETA (additional)	4,800,000
TOTAL SETA FUNDING	32,660,000

A two-year Memorandum of Agreement between CSERI and SEDFA was signed, covering the 2025–2026 and 2026–2027 financial years. For the 2025–2026 period, funding of R1.8 million was approved, with the first tranche of R900,000 already disbursed.

Additional funding secured in 2025 includes research grants from several national and international funders, totalling R7.365 million.

Funder	Grant Number	Amount
NRF SARCHI	84166	4,150,000
NRF Competitive Funding	129358	645,000
EKSOM Tesp	-	60,000
WRC Microplastics	-	280,000
WRC Anammox Mainstream	-	850,000
NRF BRICS STI	-	300,000
AJ CORE	-	680,000
NRF Marine and Coastal	-	400,000
TOTAL ADDITIONAL FUNDING	-	7,365,000



In addition to these major grants, the university received further support from various sources, including SETAs and income generated through faculty-specific short courses and professional development programs.

Source/Initiative	Amount
ETDP SETA	770,000
NEMISA	194,970
INSETA Research Chair	300,000
INSETA IBSA	285,750
INSETA Data Science	778,410
Maritime Communication Short Course	21,600
ENS Management	32,000
ENS Operational	82,500
ECDIS	32,480
Laboratory Personnel Management	35,000
Introduction to Biostatistics	115,000
Faculty of Management Sciences: Project Management Courses	23,010
Faculty of Health Sciences: Audiometry	6,050
Faculty of Health Sciences: Spirometry	25,520
Faculty of Health Sciences: Legal Knowledge	93,500
Faculty of Health Sciences: Infection Prevention and Control	61,200
TOTAL	2,853,990

Furthermore, the Advancement and Alumni Relations Unit actively engaged with various organizations, raising R7.8 million primarily to support students through bursaries, food security, and school engagement programmes.

These diverse and substantial funding streams underscore DUT's success in diversifying its income and strengthening its financial sustainability. Through strategic collaborations with industry, government bodies, and international funders, the university actively secures vital resources for student support, research initiatives, and professional development. The significant contributions from SETAs for Work-Integrated Learning and graduate internships, coupled with competitive grants and revenue generated from specialized short courses, not only enhance educational offerings but also directly contribute to skills development, economic impact, and the overall advancement of the university's mission.



4. ACHIEVEMENTS AND MILESTONES

The third quarter of 2025 witnessed significant achievements across a wide range of projects and outreach programmes at DUT, demonstrating the University's ongoing commitment to innovation, research, and community engagement. These accomplishments align strategically with its ENVISION2030 goals and contribute meaningfully to national and international development agendas.

Research, Publications, and Scholarly Impact

DUT demonstrated a robust research output, generating a substantial number of high-impact publications (over 60 journal articles and 1 book across various departments) spanning diverse fields. Notable contributions included 17 publications from Biotechnology and Food Science, an article on random forest algorithms in BMC Public Health from Statistics, eleven publications from Chemistry on environmental applications and sustainable innovations, two articles from Food and Nutrition addressing food waste and health benefits, and seven articles from Mathematics covering astrophysics, stellar evolution, and AI in STEM education. ICON further reinforced its output with a published monograph with AOSIS, nine peer-reviewed journal articles, and two co-edited volumes in press with Palgrave Macmillan and Routledge, addressing interdisciplinary themes related to sustainability, education, governance, and development.

The Institute for Water and Wastewater Technology published in prestigious journals like Environmental Pollution, and ICON reported the acceptance and publication of eight journal articles with an average impact factor of 6.54 during the quarter, alongside two conference presentations and one invited lecture.

Staff and students actively participated in and presented at numerous national and international conferences, including the Hydrogen Summit in Namibia, North American Meeting for Catalysis, Europacat, and various IEEE conferences, contributing to international academic discourse on sustainability, renewable energy, and engineering innovation.

Academic staff received significant recognition, including appointments as guest editors for high-impact journals and invitations to peer review research grants for international bodies. An invitation to participate in the 2025 International Science Prize in Germany further affirmed international recognition, and academic leadership milestones included an appointment to lead the Research Forum at St Augustine University of Mwanza. The university also launched the Horticultural Research Colloquium to enhance collaboration and advanced applied research such as the development of a peacebuilding and juvenile violence prevention framework implemented in the Democratic Republic of Congo and South Africa, and pioneering CO₂ hydrogenation research.

The Faculty of Accounting and Informatics notably launched a Smart Robotics Lab and is developing a VR-based stocktaking system, further showcasing AI-driven innovation. Various webinars were

conducted by academic staff addressing topics such as the use and management of internal funding, departmental proposals, research supervision, and departmental research initiatives, including a HELTASA Professional Learning Project webinar on pathways for higher education professionals.

Strategic Partnerships and Collaborations

DUT significantly strengthened its national and international research partnerships and collaborative initiatives. Nationally, formal MOUs were signed with the College of Emergency Care and UNISA, with an MOU nearing finalization with KZN Athletics. Strategic engagements were conducted with the South African Medical Research Council, ARC – VIMP, TIA, CSIR, Mintek, and a consortium of partners supporting DUT's AI-driven boat



Deputy Vice-Chancellor: Research, Innovation and Engagement (RIE) at DUT, Professor Fulufhelo Nemavhola at the MoU signing ceremony with Dr Collin Pillay from MILE



projects. The university signed an MoA with eThekweni Municipality, formalising a three-year partnership aimed at driving strategic research, resource sharing and promoting life-long learning. The Faculty of Accounting and Informatics notably hosted the Deputy Minister for the ZADNA conference, further enhancing its engagement with national policy discussions. Internationally, DUT formalized MOUs with five universities facilitating staff/student mobility and academic cooperation.

MOUs were also established with O.P. Jindal Global University and College of Social Work, Nirmala Niketan for community engagement, and with Parul University under the BRICS initiative. Extensive collaborations were forged with institutions globally, including the University of Minnesota, University of Manitoba, and the Russian Academy of Sciences. Industry collaborations were strengthened through advisory board meetings, student industry visits, and partnerships with leading sports organizations.

The Department of Electronic and Computer Engineering continued partnerships with the University of Botswana and Gdańsk University of Technology, while the Faculty of Accounting and Informatics is actively exploring potential international partnerships. The Maritime Studies Department engaged with the Namibia University of Science and Technology and SAFPORTS Pty Limited for course development and third-stream income. DUT successfully hosted major international events including International Week 2025 and the 9th ICTAS International Conference, elevating its global profile.

Innovation and Entrepreneurship Achievements

DUT achieved significant milestones in innovation and entrepreneurship, including securing two patents arising from the GreyWater Recycling Project, both having successfully passed initial review. Innobiz and CSERI collectively engaged 151 businesses across various incubation phases, resulting in operational incubated businesses valued at approximately R100 million and the creation of approximately 200 jobs. Student entrepreneurship was significantly supported, with 798 students trained in entrepreneurial practices and seed funding totaling R836,000 provided to 24 student-led businesses. Eleven student businesses received site visits for verification and progress assessment.

Students gained international entrepreneurial exposure through participation in programs in Finland (JAMK–DUT Erasmus+ Student Exchange Program) and the Final GISU Urban Innovation and Entrepreneurship Competition. Noteworthy entrepreneurial successes from CSERI entrepreneurs included a business showcasing Xhosa-inspired designs at the Korea Import Fair, another winning a prestigious local award for Best Small Enterprise, an entrepreneur being named among the Top 100 Influential Men in KwaZulu-Natal, and an entrepreneur securing \$10,000 in seed funding at the 2025 Entrepreneurship Education in Africa Summit.

Additionally, three businesses represented South Africa at the Global Entrepreneurship Festival, with further participation planned. Entrepreneurship was further integrated into the

curriculum through initiatives like the “Igniters’ Era” in the PGDipBA and the SkillXcelerate program, which redefined Work-Integrated Learning for Business Administration students. A guest lecture on Work Preparedness and Entrepreneurship was delivered to Marketing students by an academic from the Department of Entrepreneurial Studies and Management, highlighting employability, resilience, adaptability, and entrepreneurial opportunities through design thinking. The Technology Transfer and Innovation Unit also initiated a commercialization profile for the Grey Water Recycling Project and is pioneering sustainable materials like sanitary pads from banana fibers. Students also achieved recognition in multiple competitions, including the EDHE ABSA Innovation Challenge, Green Innovators Pitch Competition, FNB Monetize Your Business Competition, Green SMME Trailblazer Award, City of Cape Town Youth Pitching Competition, and the Enactus SA National Expo (where a project achieved second place in two challenges).

Third Stream Income Generation

DUT demonstrated significant financial robustness by securing diverse and substantial funding streams. Over R32.66 million in SETA funding was obtained to support Work-Integrated Learning students and graduate internships, benefiting 565 students. The Faculty of Accounting and Informatics secured approximately R8 million in bursary and internship funding from FASSET, SAP, and Mbasane Pty Ltd. An additional R1.2 million was secured from quad-helix partners for ICT and Engineering programs, R2.5 million in bursary funding from SAP, and R1.8 million was approved from SEDFA for 2025-2026. Furthermore, the Advancement and Alumni Relations Unit actively engaged with various organizations, raising R7.8 million primarily to support students through bursaries, food security, and school engagement programmes. Research initiatives were bolstered by an additional R7.365 million in grants from national and international funders, including NRF SARCHI, NRF Competitive Funding, WRC, NRF BRICS STI, and AJ CORE.

Furthermore, the university generated over R2.8 million in income from various sources, including ETDP SETA, NEMISA, INSETA funding, and faculty-specific short courses and professional development programs across various departments such as Maritime Communication, ENS courses, Laboratory Personnel Management, Introduction to Biostatistics, Project Management, Audiometry, Spirometry, Legal Knowledge, and Infection Prevention and Control. New short courses, such as “Understanding the Use of Computer Applications,” were developed to establish additional income streams for departments, demonstrating a strategic approach to financial sustainability.

Community Engagement and Social Impact

DUT’s commitment to community outreach and development was extensive. Outreach initiatives reached 9,886 learners and educators through 87 school visits, career exhibitions, and events like the annual Science Show and the “Women in Science: Shaping Tomorrow’s Leaders” program, particularly engaging rural learners at events like the Ixopo Career Day. Digital inclusion was advanced through the launch of the Vumahlamvu Digital Centre and the Adopt-A-School Entrepreneurship Programme in Nkandla, with NEMISA Mobile Digital Literacy Training reaching 334 participants, including unemployed youth and women survivors of gender-based



violence. Significant contributions to peacebuilding were made through the implementation of a juvenile violence prevention framework in the Democratic Republic of Congo and South Africa. Environmental stewardship was promoted via Arbor Day initiatives and student projects like the NS4 Recycling Center and the 'Grow and Thrive School Garden Challenge.'

Social responsibility projects included supporting the Emuseni Frail Care project and expanding the Star Saver Financial Literacy Programme to Nkandla schools, reaching over 2,000 learners. The university also engaged in direct community projects such as land use analysis for the Nazareth community and the Edendale Wetland Project, demonstrating a holistic approach to addressing societal needs. ICON further enhanced its community engagement and public visibility through the launch and maintenance of a dedicated LinkedIn page, effectively disseminating research updates and promoting outreach initiatives.

Global Visibility and Academic Excellence

DUT significantly enhanced its global visibility and academic excellence by hosting major international conferences, including the 25th Conference of the International Association for Research on Service Learning and Community Engagement (its first in Africa) and the 9th ICTAS International Conference. International Week 2025 also convened global experts and students. The university elevated its global profile through BRICS initiatives, hosting BRICS delegations, strengthening ties with Parul University, and receiving the BRICS Training Workshop award in Artificial Intelligence and Big Data, where students secured a bronze medal in the Future Skills Competition.

DUT secured the NRF Focused Research Advancement Award for the second consecutive year, indicative of its research excellence. Student and faculty mobility programs were robust, with French

exchange students welcomed, and faculty and students participating in exchanges to Finland (Erasmus+), Germany, and Russia. Academic leadership was recognized with an appointment to lead the Research Forum at St Augustine University of Mwanza, fostering interdisciplinary research and knowledge exchange.

In Sports Studies, Women's Month highlighted the achievements of an alumna who was recognized as a 'Protea of Mzansi' for her excellence, leadership, and social impact, notably for integrating elite sports expertise with innovation in food security and corporate sustainability. Additionally, a third-year degree student successfully completed "Learn to Swim" and "Learn to Sail" programs offered by Sail South Africa, gaining foundational skills and participating in a sailing tournament.

The Department of Textile Science and Apparel Technology is processing a request for five bursaries from CSIR to support needy and deserving students. The Department of Co-operative Education enrolled over 200 students in the KPMG Mentorship Programme, providing tailored guidance on workplace readiness, CV writing, interview preparation, career planning, and professional communication, equipping graduates with essential skills to navigate competitive job markets.

These initiatives, coupled with participation in global dialogues on entrepreneurship and innovation, underscore DUT's commitment to fostering a globally engaged and entrepreneurial academic community. The third quarter of 2025 witnessed significant achievements across a wide range of projects and outreach programmes at DUT, demonstrating the University's ongoing commitment to innovation, research, and community engagement. These accomplishments align strategically with its ENVISION2030 goals and contribute meaningfully to national and international development agendas.



5. IMPACT AND CONTRIBUTIONS

DUT's strategic initiatives and concerted efforts across its faculties, departments, and centers during Q3 have generated significant and far-reaching impacts, translating academic excellence into tangible contributions for local, national, and global communities. These contributions underscore the university's commitment to its ENVISION2030 goals, fostering sustainable development, and nurturing a people-centered, innovation-driven institution.

Advancement of Knowledge and Scholarly Discourse

The university's robust research output, evidenced by over 60 high-impact journal articles, multiple books, and co-edited volumes, has significantly contributed to interdisciplinary scholarship across health, education, social sciences, engineering, and environmental studies. Publications on topics ranging from novel chemical synthesis and AI in STEM education to critical issues in food waste and climate change directly advance global knowledge. Active participation and presentations at numerous national and international conferences, such as the Hydrogen Summit, Europacat, and IEEE conferences, have placed DUT at the forefront of academic discourse on sustainability, renewable energy, and engineering innovation. The recognition of academic staff through guest editorships, invitations to peer review international grants, and an invitation to the 2025 International Science Prize in Germany further solidifies DUT's reputation for scholarly excellence and thought leadership. Moreover, the graduation of numerous Master's and PhD students, demonstrates a strong commitment to cultivating the next generation of researchers and experts, ensuring a continuous pipeline of knowledge creation and dissemination.

Socio-Economic Development and Community Empowerment

DUT's extensive community engagement and social responsibility projects have delivered profound socio-economic impact. Outreach initiatives, reaching over 9,800 learners and educators through school visits, career days, and STEM programs like "Women in Science: Shaping Tomorrow's Leaders," directly foster awareness of educational opportunities and contribute to skills development. The launch of the Vumanhlamvu Digital Centre and the Adopt-A-School Entrepreneurship Programme in Nkandla, along with NEMISA Mobile Digital Literacy Training for 334 participants (including unemployed youth and women survivors of gender-based violence), actively bridges the digital divide and promotes rural economic empowerment. Peacebuilding initiatives, including the implementation of a juvenile violence prevention framework in the Democratic Republic of Congo and South Africa, have provided psychosocial support and empowered youth with conflict resolution skills. Environmental stewardship through Arbor Day initiatives, the NS4 Recycling Center, and the 'Grow and Thrive School Garden Challenge' cultivates sustainable practices and community resilience. These efforts, supported by partnerships

with municipalities and local organizations, exemplify DUT's role in addressing pressing societal challenges, enhancing livelihoods, and fostering inclusive growth.

Economic Growth and Entrepreneurial Ecosystem Cultivation

The university serves as a vital engine for economic growth and entrepreneurial development. Innobiz and CSERI's incubation programs have engaged 151 businesses, resulting in operational ventures valued at approximately R100 million and the creation of around 200 jobs. Direct seed funding of R836,000 for 24 student-led businesses, coupled with comprehensive training and mentorship, nurtures a new generation of job creators. Achievements in national and international competitions, such as the EDHE ABSA Innovation Challenge and various entrepreneurship awards, highlight the success of these programs in developing market-ready innovators. The generation of significant third-stream income, totaling over R32.66 million in SETA funding for Work-Integrated Learning (benefiting 565 students), R8 million in bursary and internship funding for the Faculty of Accounting and Informatics, R1.2 million from quad-helix partners, R2.5 million from SAP, R1.8 million from SEDFA, and R7.365 million in research grants, along with over R2.8 million from short courses, with the Advancement and Alumni Relations Unit, raising R7.8 million, demonstrates DUT's success in diversifying its revenue streams. This financial robustness not only supports the university's operations but also provides crucial resources for student development, research, and infrastructure, thereby sustaining a vibrant innovation ecosystem.

Enhanced Educational Quality and Student Preparedness

DUT's commitment to educational excellence is reflected in enhanced curricula, practical skill development, and career readiness initiatives. Work-Integrated Learning placements and project-based learning initiatives across various departments, such as Civil Engineering's engagement with the Edendale Wetland Project and the SkillXccelerate program for Business Administration students, provide invaluable real-world experience. Student exposure to cutting-edge technologies, such as the hydrogen-powered boat initiative and the Smart Robotics Lab, equips them with future-ready skills in renewable energy and AI. International exchange programs, including those with Finland (Erasmus+), Russia, and France, broaden student perspectives and foster global competencies.

Mentorship programs, such as the KPMG Mentorship Programme for over 200 students, and industry-aligned guest lectures on topics like work preparedness and entrepreneurship, ensure graduates are well-equipped to navigate competitive job markets and contribute meaningfully to their professions. The development of short courses in computer applications and professional upskilling further provides foundational knowledge and career advancement opportunities.

Strengthening Institutional Reputation and Global Engagement

Through its diverse impacts, DUT has significantly strengthened its institutional reputation and global standing. The hosting of major international conferences, such as the 25th Conference of the International Association for Research on Service Learning and

Community Engagement (its first in Africa) and the 9th ICTAS International Conference, positions DUT as a hub for global academic exchange. BRICS initiatives, including hosting delegations and receiving awards in Artificial Intelligence and Big Data, further elevate its international profile. Formalized MOUs with numerous international universities and research institutions across Africa, Europe, Asia, and the Americas facilitate staff and student mobility, collaborative research, and curriculum enrichment, aligning DUT with global best practices and Africa's Agenda 2063. The university's consistent alignment with the United Nations Sustainable Development Goals across its research, teaching, and community engagement activities demonstrates a dedicated approach to impact ensures DUT is recognized as a leader in research, innovation, and community engagement, contributing to a more sustainable and equitable world.

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6. CHALLENGES AND OPPORTUNITIES

Despite numerous achievements, DUT faced a range of operational, financial, and structural challenges during the third quarter of 2025. These issues highlight areas for strategic focus to ensure sustained growth and impact in line with the ENVISION2030 strategic objectives.

Operational and Infrastructure Challenges

Across various faculties, significant operational and infrastructure challenges impacted student learning, safety, and departmental efficiency. The Faculty of Engineering and the Built Environment, for instance, experienced an intensive workload due to Programme Review Evaluation preparation and Quality Improvement Plan development, which constrained capacity for external projects and community engagement due to frequent curriculum changes. Delays in project implementation, such as the grey water system for S Blocks, arose from difficulties in securing necessary institutional approvals. Broader concerns included poorly maintained facilities, persistent Wi-Fi and internet connectivity issues, incomplete air-conditioning repairs, insufficient lighting in basement areas posing security risks, and unresolved security vulnerabilities. Academic calendar disruptions further complicated operations. Maintaining

essential infrastructure, including laboratories, greenhouses, and research farms, proved challenging for departments like Horticulture, impacting research productivity.

Financial and Resource Constraints

Limited financial resources emerged as a significant barrier across multiple areas. Several departments cited funding constraints as an impediment to supporting staff attendance at international conferences, thereby restricting opportunities for global engagement. Research productivity in Horticulture was directly constrained by restricted funding. Similarly, the CSERI operated with a lean structure and limited financial resources, hindering the expansion of its operations, despite its nomination to pilot dual financial and non-financial services. The Institute for Water and Wastewater Technology also faced challenges in attracting



postgraduate students due to declining national bursaries, affecting higher-degree enrollment. Societal engagement, across the university, remained resource-intensive given limited staff availability. Administrative delays in grant processing, exemplified by a grant that was not reflected in accounts until over a year later and subsequently expired, underscored reputational risks and potential discouragement of future grant applications. Converting research and collaborative projects into sustainable entrepreneurial ventures and third-stream income also remained a persistent challenge due to resource limitations.

Staff Workload and Capacity

The intensive workload associated with compliance activities, such as PRE and QIP development, placed significant strain on departmental capacity. Early-career academics, in particular, faced challenges in balancing time-intensive engagement activities, including community partnership building and event organization, with the demands of peer-reviewed publication. This highlights a need for better support structures to manage diverse academic responsibilities effectively. Scheduling conflicts, such as those experienced by the Maritime Studies department where a critical engagement coincided with a Senate meeting, occasionally limited attendance at key events. The lack of in-house design and media capacity led to delays in marketing and communications, as departments relied on central studios.

Challenges in Community Engagement and Entrepreneurship Conversion

Sustaining community engagement initiatives and accurately measuring their long-term impact remained a challenge. Aligning academic projects with industry requirements to ensure both rigor and practical relevance proved complex, as did converting

research and collaborative projects into entrepreneurial ventures and third-stream income. Competing demands on staff and student time limited participation in networking events, public lectures, and workshops with industry leaders. Moreover, research outputs arising from engagement often take longer to complete than laboratory-based research, creating additional pressure on academics.

Opportunities for Strategic Growth

Despite these challenges, substantial opportunities for strategic growth remain. Departments continue to identify potential collaborations with industry, government, and private-sector stakeholders, which can enhance access to resources, expertise, and networks for incubated businesses. Building internal creative capacity in design, videography, and content development is expected to improve stakeholder communication and ensure timely campaign delivery. The nomination of CSERI to pilot dual financial and non-financial services presents an opportunity for extended agreements, enhanced SMME services, and the establishment of a one-stop shop for entrepreneurial support. Direct engagement through community-based research offers access to primary data and nuanced insights, facilitating original research more likely to be published in high-impact journals, while simultaneously fostering networking with policymakers, community leaders, technical experts, and international scholars. The IWWT continues to address critical water and wastewater challenges, actively disseminating information and promoting sustainable water management practices, reinforcing its role in addressing real-world problems. These avenues provide strategic pathways for DUT to further advance its ENVISION2030 objectives by strengthening academic capacity, fostering innovation, and promoting sustainable development in both local and global contexts.



7. FUTURE OUTLOOK

The fourth quarter of 2025 for DUT is poised to build upon the momentum of prior achievements, with a strong emphasis on experiential learning, applied research, entrepreneurship, and societal engagement. This period will strategically reinforce the university's commitment to its ENVISION2030 goals, fostering impactful, sustainable, and globally connected academic and community initiatives.

The Faculty of Engineering and the Built Environment will continue to prioritize community outreach, industry collaboration, and research-informed teaching and learning to enhance graduate readiness, foster innovation, and strengthen societal impact. Specifically, the Department of Electronic and Computer Engineering will intensify the planning and rollout of RoboGirl 2025, ensuring full project implementation to encourage participation and skills development in STEM fields among young women.

Industry placements for students in the Department of Civil Engineering Midlands are scheduled for 2026, with preparatory engagements continuing in Q4 to enhance practical experience and employability. The Department of Chemical Engineering will sustain its collaboration with the Springfield Civic Association, and the Department of Architecture will maintain active involvement in the proposed Inanda Seminary School girls' hostel project, alongside collaborations with national and international higher education

institutions. Furthermore, the Department of Electrical Power Engineering anticipates continued progress on the implementation of its patented grey water system in S Blocks, expanding on the efforts from the previous quarter to promote water conservation and sustainable practices.

The Department of Town and Regional Planning has scheduled an honours student trip to Botswana in early October 2025, facilitating international academic exchange. This department will also continue contributing to the ongoing review of the KwaZulu-Natal Spatial Planning and Land Use Management Bill, influencing regional policy development. Research on the heat impacts of climate change in urban environments will advance through collaboration with the South African Medical Research Council, while land-use management initiatives with the Nazareth community will be sustained.



Across the university, marketing and outreach campaigns will expand to reach thousands of students, educators, and community members, promoting educational opportunities and career pathways, particularly within the maritime sector. The Maritime Studies department will actively pursue new MOUs with local and international institutions, including the Namibia University of Science and Technology and the University of South Africa, to strengthen research collaboration, facilitate student exchanges, and expand third-stream income through new short courses. Upcoming SAMSA Syllabus Committee meetings are expected to enhance practical student learning through increased port visits and vessel exposure.

Entrepreneurial activities will remain a key focus, with the completion of pre-incubation and incubation programmes, continued engagement in project-based learning and design-thinking initiatives such as SkillXccelerate and the “Igniters’ Era”, and the strengthening of strategic partnerships across the DUT entrepreneurial ecosystem. Centres like Innobiz and CSERI aim to ensure financial sustainability while delivering value-added services that support SMMEs and student-led ventures, building on achievements like the launch of the Smart Robotics Lab and the pursuit of new funding opportunities for the Faculty of Accounting and Informatics.

The FAI will also maintain its focus on engagement and collaboration, encouraging students to participate in competitions and pioneer innovative models such as EPIP, ensuring the development of adaptive graduates capable of addressing complex societal challenges. Brand positioning and marketing efforts will be central, positioning DUT and Innobiz as leading hubs for entrepreneurship and innovation through creative campaigns highlighting student and partner successes, reinforcing DUT’s ENVISION2030 vision.

The ICON will continue to play a central role in supporting staff engagement, leveraging established partnerships to deepen impact, particularly in youth engagement and institutionalizing community-led peace initiatives to ensure collaborative efforts yield measurable and lasting societal change, aligned with relevant SDGs. Interdisciplinary collaboration will be further promoted across research institutes, enabling the integration of insights from engineering, environmental science, and public health to develop holistic solutions.

Advancements in nanotechnology and data analytics will enhance water quality monitoring, wastewater treatment processes, and broader resource management. Continuous collaboration with government and water sector stakeholders, including the IWWT, will strengthen the dissemination of research findings, extend outreach to broader audiences, and facilitate the practical application of outcomes, with societal engagement further advanced through media reporting, school outreach programmes, and rural community initiatives.

In summary, Q4 2025 will build on the momentum of prior achievements, strategically addressing identified challenges by emphasizing experiential learning, applied research, entrepreneurship, and societal engagement. Through these concerted efforts, EBE, ICON, and associated faculties will continue to strengthen DUT’s strategic priorities under ENVISION2030, fostering impactful, sustainable, and globally connected academic and community initiatives that contribute significantly to both local and global development.

The EBE will continue to prioritize community outreach, industry collaboration, and research-informed teaching and learning throughout the fourth quarter of 2025. Key planned activities reflect ongoing efforts to enhance graduate readiness, foster innovation, and strengthen societal impact.



8. CONCLUSION

This report has presented a comprehensive overview of the Durban University of Technology's progress across its Faculties, Institutes, Centres, and associated units during the third quarter of 2025, with forward-looking insights into the fourth quarter. It highlights significant achievements, tangible impacts, persistent challenges, and strategic opportunities, all firmly aligned with the institution's overarching ENVISION2030 strategy.

During the reporting period, DUT demonstrated a sustained commitment to high-quality research, robust interdisciplinary collaboration, and significant societal impact. The university's impressive scholarly output included over 60 high-impact journal articles, multiple books, and numerous conference presentations, significantly advancing knowledge across diverse fields from biotechnology and environmental science to AI in STEM education and peacebuilding. Notable innovation was evidenced by two patents arising from the Grey Water Recycling Project and the launch of initiatives like the Smart Robotics Lab. Entrepreneurial activities flourished, with 151 businesses engaged through incubation programs, resulting in approximately R100 million in operational value and the creation of around 200 jobs. Student entrepreneurship was actively nurtured through training for 798 students and seed funding totaling R836,000 for 24 student-led businesses. Financial sustainability was bolstered by securing over R32.66 million in SETA funding for Work-Integrated Learning, an additional approximately R8 million in bursary and internship funding for the Faculty of Accounting and Informatics, and R7.365 million in research grants, alongside over R2.8 million generated from short courses.

These achievements have translated into profound impacts and contributions. DUT has advanced scholarly discourse, driven socio-economic development through extensive community outreach (reaching nearly 10,000 learners and educators), and empowered communities through initiatives like the Vumanhlamvu Digital Centre and peacebuilding frameworks. The university has acted as a vital engine for economic growth, cultivating a vibrant entrepreneurial ecosystem and enhancing educational quality through practical, industry-aligned programs and global competencies fostered by international exchanges. This multi-faceted engagement has significantly strengthened DUT's institutional reputation and global standing, marked by hosting major international conferences and active participation in BRICS initiatives.

Despite these notable successes, systemic challenges persist. Operational and infrastructure issues, including poorly maintained facilities, persistent connectivity problems, and delays in project approvals, continue to affect student learning and safety. Financial constraints limit participation in international engagements and research infrastructure development, notably in areas like Horticulture. Administrative inefficiencies, such as delays in grant processing, pose reputational risks and can discourage future research efforts. Challenges in balancing intensive community engagement with peer-reviewed publication demands, particularly for early-career academics, and the conversion of research into entrepreneurial ventures, highlight ongoing areas for improvement. Student protests and limited in-house design capacity also presented operational hurdles.

Looking forward, DUT is strategically positioned to build on its momentum. The fourth quarter of 2025 will see continued prioritization of community outreach, industry collaboration, and research-informed teaching and learning, with a focus on enhancing graduate readiness and societal impact. Key planned activities include the intensified rollout of RoboGirl 2025, advancing policy review projects in KwaZulu-Natal, progressing grey water system implementation, and expanding marketing and outreach campaigns. Entrepreneurial activities, including incubation programs and strategic partnerships, will remain central, ensuring financial sustainability for SMMEs and student-led ventures. Interdisciplinary collaboration, advancements in technology, and sustained community-led initiatives are slated to further deepen impact. Through robust partnerships, applied research, and a strong commitment to its values, DUT continues to play a pivotal role in sustainable development, professional growth, and societal transformation, firmly actualizing the vision of ENVISION2030.

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GALLERY

LIBRARY
S BLOCKS
STUDENT COUNSELLING
AND HEALTH
FINANCIAL AID
STUDENT ADMISSIONS
STUDENT HOUSING AND
RESIDENCE LIFE



DUT

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ENVISION2030

transparency • honesty • integrity • respect • accountability
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