

NELSON MANDELA
UNIVERSITY

Faculty of Engineering, the
Built Environment, and
Technology



WHAT'S BEEN HAPPENING?



EDITOR'S NOTE



Welcome to the second edition of our Faculty Newsletter for 2026.

As we reflect on another productive quarter, it is evident that our Faculty continues to grow through innovation, collaboration and a shared commitment to excellence. The stories featured in this edition capture more than achievements, they reflect the dedication of our staff, students, alumni and partners who continue to shape the future of engineering, the built environment and technology.

This quarter has been marked by significant milestones. We celebrate the academic accomplishments of our staff, recognise outstanding student performance through the Dean's Merit Awards, and applaud the international recognition earned by our Architecture students. Our researchers continue to make meaningful contributions to their respective fields, while strategic partnerships with industry strengthen the relevance and impact of our teaching, research and innovation.

Beyond academic excellence, this edition also highlights the values that define our Faculty. Initiatives such as the Nourish and Rise Soup Kitchen, school career expos and community engagement activities demonstrate our commitment to making a positive difference both on campus and in the communities we serve. These initiatives remind us that education extends beyond lecture halls; it is about creating opportunities, inspiring future generations and contributing to society.

As you read through these pages, I hope you are inspired by the remarkable work taking place across our Faculty. Every achievement, partnership and initiative featured here reflects our collective pursuit of excellence and our vision of developing graduates, research and partnerships that create lasting impact.

Thank you to everyone who contributed to this edition and to those whose dedication continues to make our Faculty a place of innovation, leadership and opportunity.

Happy reading!



Created by:
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*Diploma in Public Relations
Management, Advanced Diploma in
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STAFF SUCCESS



Mr Jaco Snyders - MBA at NMU

Jaco Snyders recently completed his MBA at the Nelson Mandela University Business School. His research, titled “Optimising the Collaborative Use of the Nelson Mandela University Learning Factory,” investigates the factors influencing the adoption of the Learning Factory by manufacturing SMEs in the Eastern Cape. His work provides valuable insights to enhance industry-academia collaboration, support SME capability development, and strengthen the role of learning factories in advancing Industry 4.0 and 5.0 readiness.



Ms Lilies Ratshidi - PhD in Industrial Engineering at Stellenbosch University.

Lilies Ratshidi graduated from Stellenbosch University with a PhD in Industrial Engineering. Her research, titled “The development of a framework to support and guide the implementation of ICT solutions for CHWs in resource-constrained settings within the South African context,” focused on validating a context-specific, user-centric toolkit comprising of mechanisms to operationalise ICT for CHWs while addressing socio-technical complexities within health systems.



Ms Sinazo Yani - Advanced Diploma in Public Relations Management at NMU

Her studies focused on advanced public relations theory and practice, including strategic communication, media relations, stakeholder engagement, corporate communication, reputation management, and integrated communication planning.



Ms Lindokuhle Gwengula - Bachelor of Arts Honours in Corporate Communication at NMU

Her research topic titled “The influence of Facebook on consumer brand perception: A case study of Algoa FM in Eastern Cape” focused on examining how Facebook influences consumer perceptions of the Algoa FM brand among audiences in the Eastern Cape. It explored the role of Facebook in shaping brand image, engagement, trust, and overall consumer attitudes toward the station.

STAFF SUCCESS



Ms Andiswa Sulo - PDBA at MANCOSA

She graduated from MANCOSA with a Postgraduate Diploma in Business Administration (PDBA). This achievement reflects her commitment to continuous professional development and strengthening her knowledge in business administration, equipping her with valuable skills to support strategic leadership and organisational growth.



Mr Lethola Tshikose - MCom (IS)

He graduated from the University of Fort Hare with a Master of Commerce (MCom) in Information Systems. His achievement reflects his dedication to academic excellence and continuous professional development, strengthening his expertise in information systems and reinforcing his commitment to driving innovation and digital transformation within higher education and beyond.



Yonela Madyibi – Master of Geotechnical Engineering at Nelson Mandela University

Yonela obtained a Master of Geotechnical Engineering, marking her second Master's degree. This achievement reflects her continued commitment to advancing her expertise in geotechnical engineering and contributing to the development of innovative and sustainable engineering solutions.



Dr Vuyolwethu Mdunyelwa – PhD in Computer Science at Nelson Mandela University

His doctoral research focused on secure coding education and training, resulting in the development of a conceptual process model that equips programmers with the knowledge and skills to develop secure software. By integrating key educational theories and implementing a practical educational intervention in a real-world software development environment, his study demonstrated measurable improvements in secure coding knowledge while validating the effectiveness of the proposed model.



Dr Mark André Brand – Doctor of Philosophy (Computer Science) at Nelson Mandela University

His doctoral research explored the paradox of graduate unemployment alongside the shortage of in-demand ICT skills through the thesis, "The Paradox of a Software Development Skills Gap: A Nelson Mandela University Case Study." His study examined the complexities of employability, offering valuable insights into how higher education institutions can better align with industry needs and develop sustainable strategies that enhance graduate readiness and success.

STUDENT ACHIEVEMENTS



ARCHITECTURE STUDENTS EARN INTERNATIONAL RECOGNITION



The Faculty of Engineering, the Built Environment and Technology proudly congratulates School of Architecture students Ruan Smith and Rudi Scholtz on winning first prize at the 2026 Saint-Gobain Architecture Student Contest, one of the world's most prestigious competitions for architecture students.

After securing victory in the South African national stage, the Bachelor of Architectural Studies Honours students represented Nelson Mandela University and South Africa at the international finals in Belgrade, Serbia, where they competed against leading architecture students from 239 universities across 34 countries. Their exceptional project, Ceding the Sava, earned them the competition's top honour and a €5,000 first prize.

This year's competition challenged participants to reimagine a former industrial site on the Belgrade waterfront through innovative, sustainable and socially responsive design. Smith and Scholtz's winning proposal transformed an abandoned cement factory into a vibrant public destination that reconnects communities with the Sava River while integrating ecological restoration, flood resilience and recreational spaces. A standout feature of the design was its proposal to harvest plastic pollution from the river and repurpose it into architectural building materials, demonstrating how architecture can contribute to environmental regeneration.

Despite experiencing visa and travel delays before the competition, the pair remained focused and delivered an outstanding presentation to the international jury, ultimately securing the competition's highest accolade. Senior Architecture Lecturer John Andrews, who mentored the students throughout the competition, praised their dedication, creativity and resilience, describing their success as a reflection of the world-class education and design excellence fostered within Nelson Mandela University's School of Architecture. This remarkable achievement highlights the Faculty's commitment to nurturing innovative, socially conscious professionals who are equipped to address global challenges through sustainable design. It also reinforces Nelson Mandela University's growing international reputation for academic excellence and architectural innovation.

Congratulations to Ruan Smith and Rudi Scholtz on this outstanding accomplishment. Their success is a proud milestone for the University, the Faculty of Engineering, the Built Environment and Technology, and South Africa.

Dean's Merit Awards Celebrate Academic Excellence

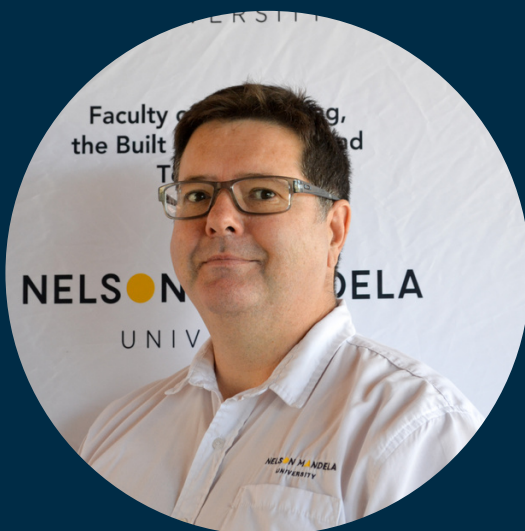
The Faculty proudly hosted the Dean's Merit Awards, recognising outstanding academic achievement across all schools within the Faculty. The awards celebrate students who have demonstrated exceptional dedication, perseverance, and excellence in their studies.

By honouring these high-achieving students, the Dean reaffirmed the Faculty's commitment to fostering a culture of academic excellence and inspiring students to reach their full potential. The Merit Awards not only acknowledge individual success but also recognise the hard work, resilience, and commitment that underpin outstanding academic performance.

Congratulations to all the recipients on this well-deserved achievement. Your dedication continues to inspire the Faculty community and reflects the high standards of excellence that define our institution.



RESEARCH EXCELLENCE RECOGNISED IN PRESTIGIOUS INTERNATIONAL JOURNAL



The Faculty of Engineering, the Built Environment and Technology proudly congratulates Prof Gerrit Crafford and co-author Prof Liezel Frick on the inclusion of their scholarly article, "Reframing Student Engagement: A Systems Approach to Bridging Learner–Lecturer Dualities," in the 50th Anniversary Issue of the internationally acclaimed journal *Studies in Higher Education*.

The special commemorative edition celebrates five decades of influential research that has shaped higher education globally. The selection of their article reflects the quality, relevance and impact of their work in advancing understanding of student engagement and strengthening teaching and learning practices.

This prestigious recognition highlights the Faculty's commitment to research excellence and innovation, while showcasing the significant contributions of its academics to addressing contemporary challenges in higher education.

The Faculty extends its congratulations to Prof Crafford and Prof Frick on this outstanding achievement and their continued contribution to scholarship that makes a lasting impact both nationally and internationally.

FACULTY NOURISH AND RISE SOUP KITCHEN LAUNCHES WITH GREAT SUCCESS



On 26 March 2026, the Faculty hosted its first Nourish and Rise Soup Kitchen initiative of the year, reaffirming its commitment to supporting student wellbeing and fostering a caring campus community.

The initiative was met with an overwhelming response, with more than 250 students receiving a warm meal. The event created an atmosphere of gratitude, compassion and unity, as staff members came together to serve students and demonstrate the Faculty's commitment to making a meaningful difference beyond the classroom.

The success of the initiative was made possible through the dedication and teamwork of Faculty staff, whose collaborative efforts ensured that the distribution process was well organised and efficient. Impressively, all meals were served within just one hour.

The event also provided valuable insights that will help strengthen future initiatives, including aligning serving times more closely with the student shuttle schedule and ensuring an initial one-meal-per-student approach so that as many students as possible can benefit before additional servings are offered.

The Faculty extends its sincere appreciation to everyone who contributed their time, resources and enthusiasm to the success of the first Nourish and Rise Soup Kitchen of 2026. Together, we continue to embody the spirit of compassion, service and community that defines our Faculty.

MARINE ENGINEERING STRENGTHENS INDUSTRY PARTNERSHIPS WITH SAMSA

On 9 June 2026, the Department of Marine Engineering welcomed a delegation from the South African Maritime Safety Authority (SAMSA), led by Chief Executive Officer Captain Dennis Mgadi, for a strategic engagement at Nelson Mandela University.

The meeting brought together representatives from the Department of Marine Engineering, the School of Engineering, Mechatronics and SAMSA to discuss matters of mutual interest aimed at strengthening collaboration between academia and the maritime industry.



The engagement reflects the Department's ongoing commitment to building meaningful partnerships with key industry stakeholders that support academic excellence, research, innovation and the development of graduates equipped to meet the evolving needs of South Africa's maritime sector.

Through collaborations with organisations such as SAMSA, the Faculty of Engineering, the Built Environment and Technology continues to create opportunities that enhance teaching, learning and industry engagement while contributing to the growth and sustainability of the maritime industry.



GRADUATION



SCHOOL OF ENGINEERING HOSTS INAUGURAL POSTGRADUATE RESEARCH SYMPOSIUM

The School of Engineering successfully hosted its inaugural Postgraduate Research Symposium on 15 May 2026 at the North Campus Conference Centre, providing a platform for postgraduate students to showcase their research while strengthening connections between academia and industry.

The symposium brought together master's and doctoral candidates, academics, alumni and industry representatives from Jendamar, Haslop and Mason, AutoX and Eskom. Students presented their research across various engineering disciplines, receiving valuable feedback from panels comprising academic experts, alumni and industry professionals.

In his opening address, Dr Kumeshan Reddy, Chairperson of the School of Engineering Postgraduate Studies Committee, highlighted the importance of research that addresses emerging engineering challenges and contributes to the advancement of the profession.

The Executive Dean of the Faculty of Engineering, the Built Environment and Technology (EBET), Prof Sudesh Rathilal, emphasised the vital role of impactful postgraduate research in driving innovation, supporting industry and creating solutions that benefit society.

The symposium reflects the School of Engineering's ongoing commitment to fostering a strong research culture, promoting industry collaboration and developing highly skilled engineering graduates equipped to address future challenges.

Following the success of the inaugural event, the School of Engineering aims to establish the Postgraduate Research Symposium as an annual platform for research excellence, knowledge sharing and industry engagement.



STRENGTHENING INDUSTRY COLLABORATION WITH ISUZU

The Faculty of Engineering, the Built Environment and Technology recently hosted the Isuzu–NMU Truck Engineers Meeting, bringing together University and industry stakeholders to review progress, strengthen collaboration and explore new opportunities that support engineering education, research and innovation.

Discussions focused on several strategic initiatives, including funding opportunities, the proposed Isuzu Chair in Mechatronics, feedback on the mentorship programme and ongoing developments within the CPM Laboratory. These initiatives reflect the shared commitment of Nelson Mandela University and Isuzu to developing industry-relevant skills and advancing engineering research.

The meeting reaffirmed the value of strong industry partnerships in creating opportunities for students, supporting academic excellence and driving innovation that responds to the evolving needs of the engineering sector.

Through collaborations such as this, the Faculty continues to bridge the gap between academia and industry, ensuring graduates are equipped with the knowledge, practical experience and professional networks needed to thrive in an increasingly dynamic engineering landscape.



EBET INSPIRES FUTURE ENGINEERS THROUGH SCHOOL CAREER EXPOS

As part of its ongoing student recruitment and community engagement initiatives, the Faculty of Engineering, the Built Environment and Technology (EBET) participated in career expos at Andrew Rabie High School and Newton Technical High School during the first semester of 2026.

The expos provided an opportunity for Faculty representatives to engage directly with learners, offering valuable information about the wide range of academic programmes and career opportunities available within engineering, the built environment and technology.

Through interactive conversations, learners gained insight into the exciting possibilities that a career in these fields can offer, while also learning about the admission requirements, student support services and the opportunities available at Nelson Mandela University.

These engagements form part of the Faculty's commitment to inspiring and empowering the next generation of engineers, innovators and problem-solvers. By connecting with learners at school level, EBET continues to encourage young people to pursue careers that will contribute to South Africa's future development.



CONNECTING GQEBERHA TO GLOBAL ROBOTICS INNOVATION

From 2–4 June 2026, the Faculty of Engineering, the Built Environment and Technology (EBET), through the School of Engineering, partnered with the South African Institute of Measurement and Control (SAIMC) Eastern Cape Branch to host a local satellite viewing site for the IEEE International Conference on Robotics and Automation (ICRA 2026).

Hosted at Nelson Mandela University, the event connected postgraduate students, academics and industry professionals in Gqeberha with one of the world's premier conferences in robotics, automation, artificial intelligence and advanced manufacturing, taking place in Austria.

The three-day programme provided participants with access to cutting-edge research, emerging technologies and global discussions shaping the future of engineering. It also created valuable opportunities for networking, knowledge exchange and collaboration between academia and industry.

The initiative, made possible through the collaboration of SAIMC, the IEEE South Africa Section, the Advanced Mechatronic Technology Centre (AMTC) and Nelson Mandela University, reflects the Faculty's commitment to advancing engineering excellence, strengthening international partnerships and preparing graduates to contribute to a rapidly evolving technological landscape.

1. NELSON MANDELA BAY BUSINESS CHAMBER COFFEE MORNING

eNtsa hosted the Nelson Mandela Bay Business Chamber Coffee Morning on 23 June 2026 at the Nelson Mandela University Business School, featuring Dr Annelize Botes, Director of FeTiCon, as the guest speaker. The session brought together members of the regional business community, industry professionals and organisational leaders to explore the role of engineering capacity building in strengthening organisational performance and resilience.

Presented under the theme "Engineering Capacity Building: Technical Capability as a Business Risk Control Mechanism," the discussion highlighted how investing in technical competence enhances decision-making, mitigates operational risk and supports sustainable business growth. The session encouraged dialogue on the strategic importance of engineering expertise as a driver of organisational resilience and long-term competitiveness.

The event facilitated discussions on engineering capability and business sustainability. eNtsa reinforced its commitment to advancing professional development, strengthening industry partnerships and promoting engineering excellence in support of regional economic development.



INDUSTRY PARTNERSHIP DRIVING FUTURE ENGINEERING TALENT

The Faculty of Engineering, the Built Environment and Technology (EBET), through the ISUZU Chair of Mechatronics, continues to demonstrate the impact of meaningful university-industry collaboration in preparing the next generation of engineers.

Since 2018, Isuzu Motors South Africa has invested more than R1 million in the ISUZU Chair of Mechatronics, supporting engineering student projects, industry mentorship and experiential learning opportunities. This long-standing partnership enables students to bridge the gap between classroom learning and industry practice by tackling real-world engineering challenges alongside experienced professionals.

During the reporting period, approximately 300 engineering students benefited from mentorship, project-based learning and direct engagement with industry experts. These experiences have strengthened students' technical capabilities, enhanced their professional skills and improved their readiness to enter the manufacturing, automotive and technology sectors.

The continued partnership reflects the Faculty's commitment to producing industry-ready graduates while fostering innovation, skills development and stronger collaboration between academia and industry.

SAICE STUDENT CHAPTER VISITS R355 ROAD UPGRADE PROJECT

On 22 May 2026, members of the South African Institution of Civil Engineering (SAICE) Student Chapter, together with third-year Civil Engineering students from Nelson Mandela University, visited the R355 Road Upgrade Project between Motherwell and Addo as part of the Chapter's commitment to experiential learning.

The educational site visit provided students with valuable first-hand exposure to one of the region's major infrastructure projects, offering practical insight into the planning, construction and management of large-scale road and bridge developments.

The visit began with a comprehensive health and safety induction, highlighting the critical role that safety plays on construction sites. Students then received an overview of the project, including its objectives, scope and implementation challenges, before embarking on a guided tour of the site.

Throughout the day, students observed various stages of road construction, including earthworks, pavement layer preparation and compaction, while also learning about bridge extension works and the importance of stormwater management systems in ensuring the longevity of road infrastructure.

A key highlight of the visit was the opportunity to engage directly with engineers and construction professionals. These interactions enabled students to explore topics such as project management, quality assurance, environmental considerations and career opportunities within the civil engineering sector.

The site visit reinforced the importance of applying theoretical knowledge in real-world environments and demonstrated how engineering principles are translated into infrastructure that serves communities. It also highlighted the value of industry partnerships in preparing students for professional practice.

The Faculty remains committed to providing students with experiential learning opportunities that bridge the gap between academic study and the engineering profession, ensuring graduates are equipped with the practical skills and industry exposure needed to succeed in their careers.



STEM IN ACTION CAREER DAY

The Faculty of Engineering, the Built Environment and Technology, through its STEM in Action initiative, hosted STEM Career Day 2026 at the Nelson Mandela University Business School, bringing together Grade 11 learners from schools across Nelson Mandela Bay to explore engineering, technology and STEM career pathways through industry engagement and experiential learning.[SR1]

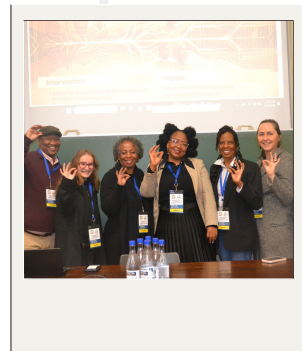
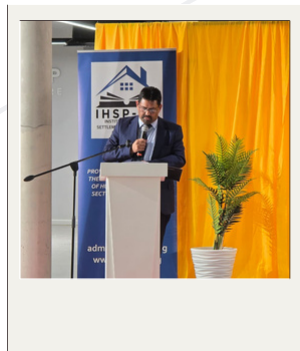
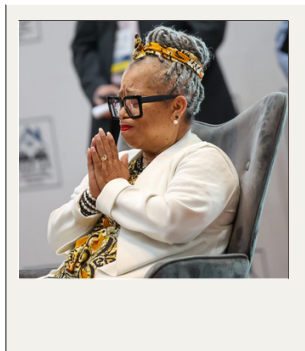
Officially opened by Executive Dean Prof Sudesh Rathilal, the event introduced learners to the diverse opportunities available within the Science, Technology, Engineering and Mathematics (STEM) disciplines. Through a collaborative partnership between Nelson Mandela University and leading industry organisations, including SANRAL, Volkswagen Group Africa, Jendamar Automation and Microcare Solar Energy, learners were provided with valuable exposure to emerging technologies, industry expectations and future career pathways.

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The programme reflects EBET's commitment to developing the future STEM pipeline by strengthening links between secondary education, higher education and industry. Through exposure to real-world engineering applications and direct engagement with industry professionals, learners were supported in making informed study and career choices while gaining a clearer understanding of opportunities within the engineering and technology sectors.



PAN AFRICAN CITY SYMPOSIUM + EXPO SMART FUTURES



Nelson Mandela University successfully hosted the **2026 Pan-African City Symposium and Exposition (PACSE)** from 22–29 June 2026, bringing together leaders from government, academia, industry, municipalities, and international organisations to explore the future of human settlements across Africa.

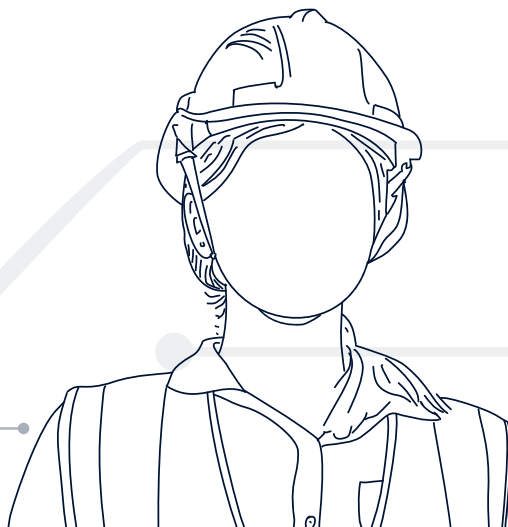
Held under the theme **“Smart Futures: From Smart Villages to Smart Economies – Exploring Models that Create Resilient, Equitable, Regenerative and Thriving Communities,”** the symposium created a platform for meaningful dialogue on affordable housing, climate resilience, integrated human settlements, sustainable urban development, and smart economies.

The Faculty of Engineering, the Built Environment and Technology played a significant role in the symposium, with Executive Dean Prof. Sudesh Rathilal contributing to discussions that highlighted the importance of collaboration between academia, government, industry, and communities in shaping sustainable futures.

A major milestone of PACSE 2026 was the official launch of the Institute of Human Settlement Practitioners South Africa (IHSP-SA), marking an important step toward the professionalisation of the human settlements sector in South Africa.

Throughout the week, delegates participated in plenary sessions, keynote addresses, technical discussions, the Women’s Leadership Forum, and the African Diaspora Forum, strengthening local and international partnerships and fostering knowledge exchange on building resilient and inclusive communities.

PACSE 2026 concluded with a renewed commitment to advancing equitable, regenerative, and thriving human settlements across South Africa, the African continent, and the global African diaspora, leaving a lasting legacy of collaboration, innovation, and shared purpose.



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