

# NEWSLETTER

12 DECEMBER 2025

Reflecting July - December 2025



*Inspired by people, driven by innovation...*



PDTS is hosted by the Central University of Technology, Free State

# Proud moments, from ideas to milestones

Dear Valued Clients and Stakeholders,

As we wrap up the final quarter of 2025, I want to sincerely thank you for your trust, support, and for partnering with PDTS in bringing your innovations to life. Quarter 4 arrived with a burst of energy, reminding us why innovation is exciting, why partnerships matter, and why PDTS continues to show up with purpose.

One of our proudest moments this quarter was the signing of the MoU between CUT–PDTS and the University of Venda. This strategic partnership opens fresh doors for impact, giving researchers and students new opportunities to turn ideas into real-world solutions. We are thrilled to be part of this journey and excited about the possibilities it creates.

Q4 also kept our training rooms buzzing. From SolidWorks sessions to sketching and drawing classes, young innovators sharpened their skills and expanded their creative toolbox. To every participant who showed up with curiosity and determination, thank you. You remind us why building capability is one of PDTS's greatest strengths.

In true PDTS spirit, we also celebrated meaningful personal milestones. I was deeply touched by the team's warm acknowledgment of my PhD achievement, a gesture that reflects the heart, unity, and support of this incredible team.

As we close the year, the PDTS team will take a well-deserved break from 12 December 2025 and will return energized on 5 January 2026. On behalf of PDTS and the Central University of Technology, Free State, I wish you and your loved ones a restful, joyful, and safe holiday season.

Thank you once again for your trust and partnership. We look forward to creating even greater impact with you in 2026.

With appreciation and anticipation,



**Dr. Shelly Mona**

Deputy-Director: PDTS

## Leadership in action: Our Deputy Director attains her PhD

On 5 December, the PDTS team surprised Dr. Shelly Mona with a beautiful celebration for her PhD achievement.

*I am truly overwhelmed. Everything was so thoughtfully put together, and I absolutely love the perfect gifts. A heartfelt thank you to the Product Development Technology Station team for making this milestone feel even more special. Your support, kindness, and generosity mean more than you know.*

*There's something powerful about being part of a team that genuinely celebrates you, not just the work you do, but the person you are and the journey you're on. I'm grateful to work with people who uplift, encourage, and show up for one another. Thank you all. I deeply appreciate every one of you.*





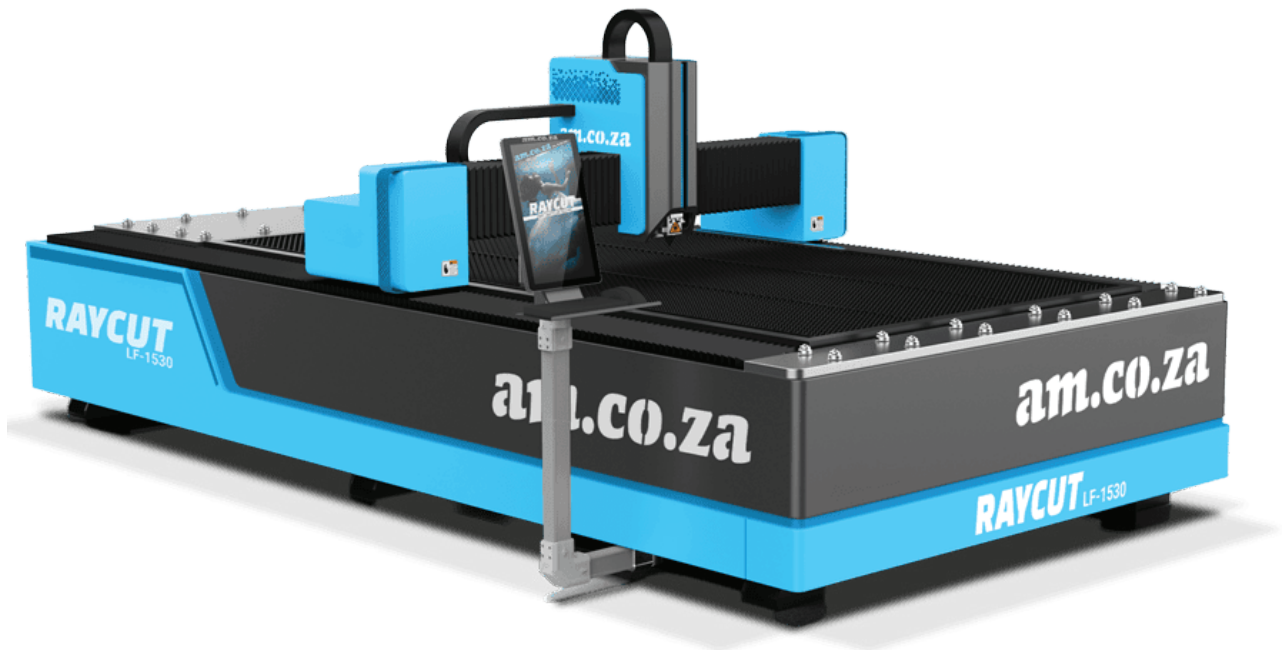
## We're expanding our manufacturing capabilities

With the addition of a brand-new 3kW Fiber Laser Cutter featuring a 3m x 1.5m bed size, in addition to our Laser Tube Notcher, CNC bender and other CNC machines, we are expanding our manufacturing capabilities.

This powerful new system will enable high-precision cutting across a wide range of materials, opening the door to bigger, more complex, and faster-turnaround projects than ever before.

We will be offering services with the machine in 2026, offering industry-grade laser cutting services to makers, businesses, and innovators. It will also play a key role in supporting the PDTS with its ongoing research, development, and prototyping initiatives.

Stay tuned for updates as we move closer to launch!



# PDTS at the Science Forum SA 2025

We were honoured to be part of Science Forum South Africa (SFSA) 2025, held from 24–28 November 2025. This year's theme, "Igniting Conversations about Science – Placing Science, Technology and Innovation at the Centre of Government, Education, Industry and Society," perfectly captured the spirit of the week.

The forum once again provided a powerful platform for meaningful dialogue, collaboration, and idea-sharing among researchers, innovators and industry leaders.

At our exhibition stand, PDTS proudly showcased our product development journey, engineering expertise, and the innovative solutions we are creating to support societal needs. Engaging with visitors who share our passion for innovation and impact was truly inspiring.

Thank you to everyone who stopped by, asked questions, and explored our work. Your enthusiasm motivates us to continue advancing innovation that makes a real difference.

Here's to driving conversations, strengthening partnerships, and shaping a future where science and technology are at the heart of progress.





# An introduction to sketching and drawing

Our Introduction to Sketching and Drawing short course was held on 20–21 November 2025 where we taught how to use lines and contours to communicate ideas with clarity and confidence. We had an incredible two days of focus and growth! On the 21st of November we wrapped up day 2 of our Sketching and Drawing Course, and we are truly inspired by the 16 participants who joined us from across the Free State and Lesotho. Participant's dedication, curiosity, and rapidly growing skills blew us away. We thank you for showing up with passion and for trusting PDTS to guide your journey in visual communication. Here's to new skills, new confidence, and new possibilities!

PDTS is a verified and recognised ECSA CPD service provider, participants earned 3 ECSA-accredited CPD credits for completing the course.



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*Celebrating 20 Years as a University of Technology*



# PDTS Sponsorship Shines at the 2025 Intervarsitybrew™ Label Design Competition

The Product Development Technology Station (PDTS) once again had the honour of sponsoring and leading the Label Design Competition at the annual Intervarsitybrew™ event — a flagship challenge that brings together creativity, technical skill, and brand communication from universities across South Africa.



The graphic features a dark wood-grain background. At the top left, the text '2025 BEER LABEL DESIGN' is in a bold, sans-serif font, with 'Judges' written in a large, elegant script below it. To the right is a yellow beer mug icon. Further right, 'Intervarsity™' is in a large, bold, sans-serif font, with 'brew' in a smaller, yellow, lowercase font. Below this, 'BREWING & TASTING CHALLENGE 2025' is written in a smaller, white, sans-serif font.

 <b>Miralde Kotze</b> Design Judges Convenor	 <b>Crystal Newman</b> Design Judges Assistant	 <b>Carien van Eck</b> National Museum	 <b>Charina Barlett</b> HeSheDigital
 <b>Hester Bergh</b> Trill	 <b>Archy Hlahla</b> BASA	 <b>Hennie de Klerk</b> CHAOS Studio	 <b>Leonard Botha</b> Metano Media Advertising
<div> Creative</div> <div> Intelligent</div> <div> Responsible</div>			

This year's competition showcased exceptional talent, with student teams submitting innovative, well-crafted beer label designs that demonstrated strong conceptual thinking and attention to detail.

The 2025 winners were:

1st Place: Hop Rocket – University of South Africa (UNISA)

2nd Place: Bathong!! – North-West University (NWU)

3rd Place: Campus Gold – Vaal University of Technology (VUT)



As always, the judging process was rigorous, fair, and based on a well-structured Label Judging Score Sheet, which evaluates each entry on creativity, brand message, visual communication, technical layout, originality, and overall execution.

PDTS's Ms. Miralde Kotzé, the convenor of judges, plays a unique and impartial role in the competition. While she oversees the judging process, her own opinion does not influence the creative scoring. Instead, she evaluates only the legal compliance section (16%) of each beer label — using a strict yes/no checklist that covers essential regulatory requirements such as: manufacturing address, best-before date, storage instructions, product identification, mandatory legal statements.

These evaluations are completed before the competition to ensure all labels adhere to industry standards. The remaining scoring is carried out by a panel of six expert judges, all professionals from the marketing and design industries. Each judge independently assesses the labels using the same scoring sheet. The scores are then compiled, reviewed in Excel, and collectively discussed to confirm the final placements. While the numbers typically speak for themselves, deliberations do occur in cases where entries are tied, ensuring fairness and transparency in the final outcomes.

PDTS is proud to contribute to an initiative that not only celebrates student creativity but also introduces real-world brand, design, and compliance standards to future professionals.



## Welcome to the Medical Team: Rassie Adendorff

We are delighted to welcome Erasmus Adendorff to the PDTS Medical Product Development Team! Erasmus is a passionate Mechanical Engineer driven by curiosity, creativity, and a love for problem-solving. His approach to innovation combines thoughtful research and practical design, transforming complex challenges into simple, effective solutions. He believes in the power of collaboration and values every opportunity to learn from others, knowing that meaningful feedback leads to smarter, more impactful innovations.

Welcome to the team, Erasmus — we're excited to see your ideas come to life!



**ERASMUS ADENDORFF**

**JUNIOR PROJECT  
ENGINEER: MEDICAL**

I'm a passionate Mechanical Engineer who thrives on innovation and creative problem-solving. Through research, design, and collaboration, I turn complex challenges into smart, impactful solutions.

# CUT-PDTS and the University of Venda partner to drive innovation

The Product Development Technology Station (PDTS) at the Central University of Technology, Free State (CUT), and the University of Venda (UNIVEN) have officially signed a Memorandum of Understanding (MoU) to strengthen collaboration in technological innovation, product development, and commercialisation.

Through this partnership, PDTS will support UNIVEN researchers and students with the development and manufacturing of prototypes — transforming innovative ideas into market-ready solutions.

In the Photographs:

**Dr. Shelly Mona**, Deputy Director: Product Development Technology Station (PDTS), CUT, and **Professor Vhonani Netshandama**, Director: Community Engagement, Entrepreneurship, Inclusive Innovation, and Commercialisation (CEEIIC), University of Venda, during the signing of the Memorandum of Understanding

Together, Central University of Technology, Free State and UNIVEN are building pathways from research to real-world impact — advancing innovation for a better South Africa.



## Quality: The backbone of our work

At PDTs, our focus is on building and maintaining systems that consistently deliver quality, reliability, and innovation. These systems form the backbone of our work, ensuring that every project — from concept to completion — is driven by precision and purpose.

Through well-defined processes, strict quality controls, and continuous performance monitoring, we ensure that:

- Operations run smoothly and efficiently, enabling faster turnaround times and reduced risks.
- Products, prototypes, and engineering solutions meet the highest industry standards, thanks to structured workflows and quality assurance practices.
- Innovation remains scalable, dependable, and impactful, ensuring that great ideas can move seamlessly from development into real-world application.

Our commitment to quality is not an isolated step — it is built into every stage of our systems, teams, and technologies. By embedding excellence into everything we do, PDTs transforms ideas into market-ready solutions that clients can trust and industries can rely on.





# Marketing or social media campaign? Let us amplify your message!

Let the PDTS Graphic Design & Branding Unit transform your message into a compelling visual story. From concept development to final roll-out, our team ensures every campaign is designed with strategy, clarity, and audience impact in mind. Whether you're raising awareness, educating the public, or driving engagement, we tailor your visuals and messaging to align with your brand and objectives.

Here's a look at our client's IR & RP Act Campaign — a great example of how thoughtful design and strong communication work together to deliver results. Design drives impact. Let us help you make yours.



# Precision Engineering

Did you know? We take precision engineering to the next level with our advanced CNC machining capabilities.

One of our highlights is the CNC Turn Mill – a game-changer! With a single setup, it handles even the most complex machining tasks while ensuring unmatched accuracy, efficiency, and quality.

From intricate designs to demanding components, our CNC Turn Mill empowers us to deliver engineering excellence every time.





## PDTS at the Motheo TVET College Disability Conference 2025

On 5 September, PDTS had the privilege of exhibiting at the Motheo TVET College Disability Conference. The event took place at the National Artisan Development Academy and centred around the inspiring theme, “Inclusivity of Education in Our Lifetime.”

This important gathering highlighted the urgent need for equitable access to education and skills development, especially for individuals with disabilities. It brought together educators, industry professionals, disability advocates, and learners for meaningful conversations about the future of inclusive education. Throughout the day, participants explored practical strategies, shared experiences, and discussed innovative approaches that can drive real, lasting change.

As PDTS, we were honoured to showcase our range of medical assistive devices, demonstrating how thoughtful product development, engineering, and innovation can actively enhance accessibility. Our work aims to support independence, improve quality of life, and ensure that no learner is left behind due to barriers that can be bridged through technology.

We remain deeply committed to contributing to a more inclusive future—one where creativity, collaboration, and innovation open doors for all. Events like this reinforce the importance of our mission and inspire us to continue advancing solutions that make education, opportunity, and dignity accessible to everyone.





# Enhance Your 3D Design Skills with PDTS SolidWorks Training



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Thinking Beyond



The Product Development and Technology Station (PDTS) is excited to invite students, innovators, and industry professionals to a comprehensive week-long SolidWorks Training programme. This workshop is tailored to build essential 3D design and CAD competencies; skills highly sought after in today's engineering and product development environments.

**Dates:** Training sessions for 2026 will be confirmed and advertised on our social media platforms.

**Time:** 09:00 – 15:00

**Venue:** Room 105, ETB Building, CUT

Participants will gain practical, hands-on experience using SolidWorks, covering core tools, techniques, and workflows that support modelling, design evaluation, and preparation for manufacturing. Whether you are strengthening your technical foundation or advancing your professional capabilities, this training provides an excellent opportunity to grow.

Seats are limited. To register for future training events, please email your name, surname, and cellphone number to [pdts@cut.ac.za](mailto:pdts@cut.ac.za)

# PDTS at the Mangaung STEAM Expo 2025

PDTS proudly participated in the STEAM Expo Hall on 4 September 2025. The expo was hosted by the Mangaung Metropolitan Municipality Library and Information Services at Mangaung City Hall.

These interactive exhibitions brought together learners from grades 9 to 11 and provided hands-on demonstrations where learners had the opportunity to explore science, technology, engineering, arts, and mathematics, sparking curiosity and inspiring a love for STEAM fields.

We were honoured to join other renowned organizations, including American Spaces, ESKOM Expo for Young Scientists, JP4IR, Motheo TVET College, the Agricultural Research Council, Blue Ribbon, SAPS, and the Traffic Department, providing learners with insights into diverse careers and industries.

At PDTS, we are committed to guiding young minds, fostering curiosity, and helping learners make informed decisions about their future careers in STEAM.





## 2025 SARIMA Conference, Dr. Mona as Keynote Speaker

The PDTS proudly participated in the 2025 SARIMA Conference, where Deputy Director, Dr. Shelly Mona, delivered an insightful talk on: **“Transforming Ideas into Market-Ready Products: The Role of PDTS in Innovation and Entrepreneurship.”**

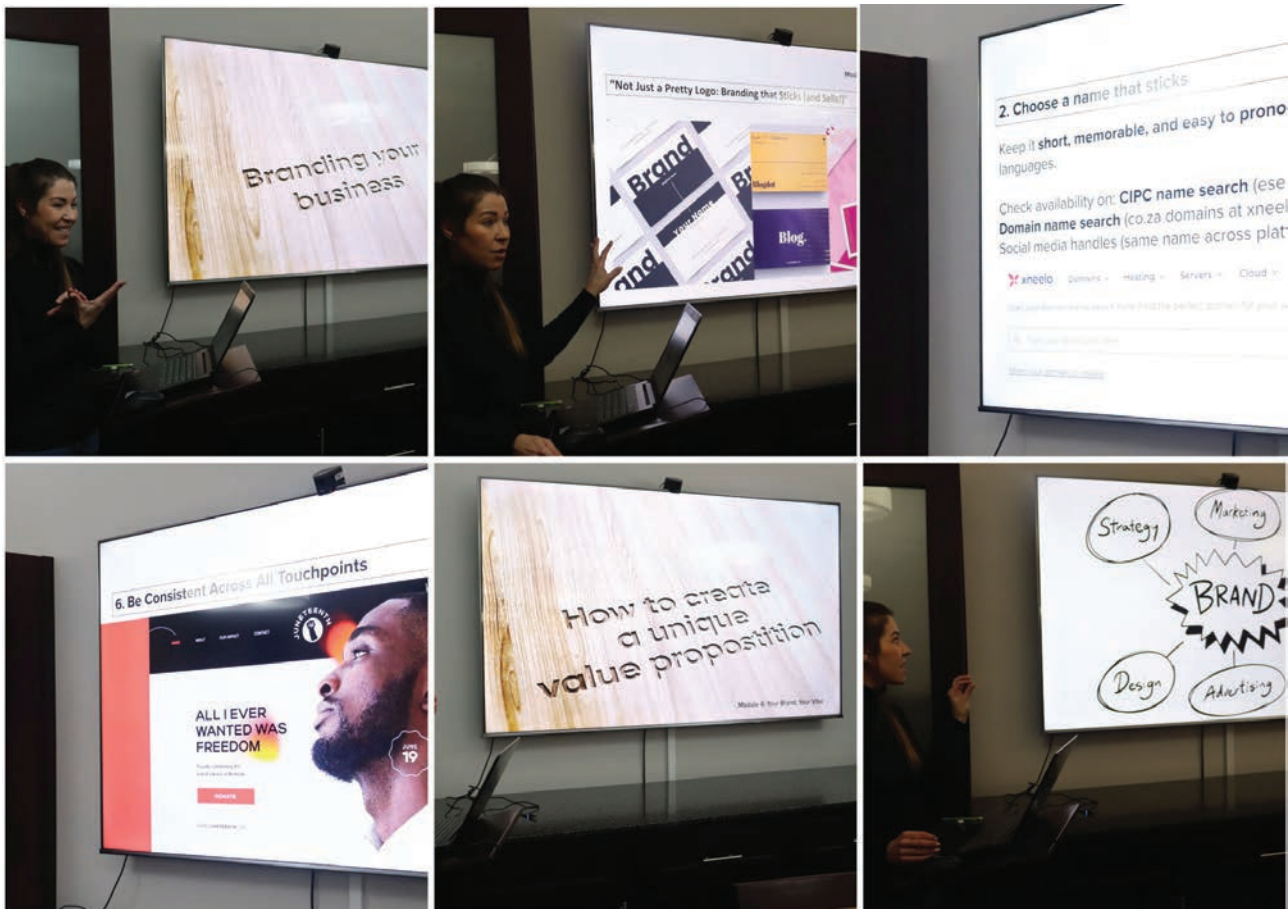
We were honoured to share our work as part of a session on Innovation and Entrepreneurship in the Research & Development Ecosystem, alongside other experts contributing to discussions on research, innovation, and commercialization. This participation reaffirms our commitment to advancing innovation and entrepreneurship.

At PDTS, we bridge the gap between innovators, SMEs, start-ups, and researchers, helping ideas evolve into impactful products that drive socio-economic growth.





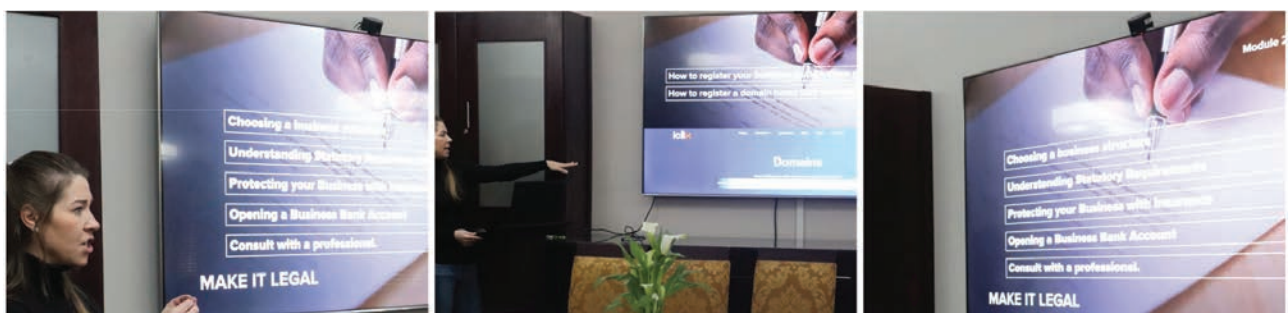
# Unpack the essentials of starting and branding a small business in South Africa



We had an inspiring day of learning and creativity on Friday, 15 August 2025. Our training workshop unpacked the essentials of starting and branding a small business in South Africa – all on a budget.

From The Big Idea Bonanza to testing your business idea in creative ways, participants explored how to identify opportunities, choose a business name that sticks, and even the practical steps like opening a business bank account and registering a domain name.

We also dived into branding strategies – discovering how to build consistency across all touchpoints, craft a unique value proposition, and understand why branding is so valuable in today's competitive marketplace. For more information about this impactful session, send an email to [pdts@cut.ac.za](mailto:pdts@cut.ac.za).



# Innovation at the 2025 Disability Awareness Expo

On 8 August 2025, the Product Development and Technology Station (PDTs) had the privilege of exhibiting at the Disability Awareness Expo hosted at the Central University of Technology, Welkom Campus. The event brought together organisations, innovators, students, and community members with a shared purpose: advancing inclusion and accessibility for persons with disabilities.

The Expo created a vital platform to address the challenges faced by individuals with disabilities, while also highlighting opportunities for meaningful employment, empowerment, and equal participation in society. Through conversations, demonstrations, and knowledge sharing, attendees explored ways to remove barriers and promote a more inclusive future.

PDTs proudly showcased a range of assistive devices, prototypes, and technological solutions designed to improve the daily lives of persons with disabilities. Our exhibit reflected our ongoing commitment to using innovation as a tool for social impact — ensuring that technology is not only advanced, but accessible and beneficial to all.

Our participation reaffirmed PDTs's dedication to building an equitable society where every person is supported through thoughtful design, inclusive thinking, and transformative technology.





# Celebrating Innovation and Collaboration

Our Newsletters highlight inspiring stories and events, reflecting how partnerships continue to drive product development and community impact.

*Together, we innovate. Together, we strengthen connections.*

To view our current\previous Newsletters, visit <https://pdts.co.za/newsletters/>





## PDTS as the main exhibitor for the Kah-Dah Device for the DSTI, TIA event

On Monday, 4 August 2025, the Product Development Technology Station (PDTS) at the Central University of Technology, Free State (CUT), in partnership with the Department of Science Technology and Innovation (DSTI) and the Technology Innovation Agency (TIA), proudly hosted a groundbreaking event showcasing inclusive innovations for persons with disabilities. A major highlight was the unveiling of Ka-Dah – a wearable device developed and manufactured by PDTS – that empowers blind users to operate smartphones without touching the screen. This life-changing assistive technology is a testament to the power of user-centered design and inclusive innovation.

Other pioneering technologies presented included:

**Virecom** – Real-time video remote interpreting for Deaf users

**WeSignIt** – Printed content translated into South African Sign Language via QR codes

**ShazaCin** – A tourism and entertainment app with narrated experiences for the visually impaired

A sincere thank you to everyone who contributed to this meaningful day — including persons with disabilities, caregivers, advocacy groups, NGOs, researchers, and government stakeholders. Your support continues to inspire our efforts to make a lasting impact.



# Empowering Africa's Future Through Innovation

The Product Development Technology Station (PDTs), in collaboration with the Centre for Rapid Prototyping and Manufacturing (CRPM), had the honour of exhibiting at the Inaugural Annual Youth Development Conference hosted by the Central University of Technology, Free State, on 28–29 July 2025.

Under the theme “Cultivating Youth Agency in a Complex Societal Setting: Transcending the Africa That Is Desirable,” this event ignited crucial conversations around innovation, transformation, and youth empowerment.

At PDTs, we proudly showcased our capabilities in product development, design, prototyping, and manufacturing support—services that help bring ideas to life. It was a pleasure engaging with passionate young minds excited about shaping the future through innovation and technology.

Thank you to CUT for the invitation—we are proud to contribute to building a future-ready Africa.





# PDTS Showcases Innovation at the 2025 Manufacturing Indaba

PDTS proudly exhibited at the Manufacturing Indaba 2025, live from the Sandton Convention Centre – Exhibition Hall 1, where our team showcased cutting-edge, human-centred solutions designed to strengthen Africa's manufacturing value chains.

The expo brought exciting conversations, industry connections, and valuable insights into how innovation can elevate industrial competitiveness across the continent. From advanced product development to technology-driven problem-solving, PDTS continued to highlight the role of innovation in shaping a stronger manufacturing future.



# Celebrating over 25 Years of Innovation!

At the Product Development Technology Station (PDTS), we've been driving innovation and excellence in product development for more than two decades.

From concept to creation, our core services include:

- Medical Device Product Development
- Product Development
- Advanced Manufacturing
- Graphic Design and Branding

Backed by an ISO 9001:2015 certified Quality Management System, PDTS is your trusted partner for cutting-edge solutions that turn ideas into reality.

Proudly based at the Central University of Technology, Free State – powering industry, empowering innovation.





## Serving those with unique medical needs

At PDTS, we believe that innovation should serve people — especially those with unique medical needs. We recently developed our second customized cranial protector for a young learner living with epilepsy at Pholoho Special School. Each device we create is patient-specific and designed to offer comfort, safety, and dignity.

Through local design and development, we ensure that our assistive devices are both effective and accessible.



## Meet the Creative and Skilled Team



**Shelly Mona**  
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