

NEWSLETTER

12 OCTOBER 2026

REFLECTING JULY - SEPTEMBER 2026



Inspired by people, driven by innovation...

PDTS in Focus: Our Latest Quarter of Innovation

Dear Valued Clients and Stakeholders,

Some milestones are worth pausing to recognise. This quarter, one of those milestones was successfully completing our ISO 9001 audits.

At PDTS, quality is not simply about passing an audit or having a certificate on the wall. It is reflected in how we approach our work every day, from the first conversation with a client to the development of an idea and the delivery of a solution. Successfully completing our ISO 9001 audits is a reflection of the commitment of our team and the standards we continue to hold ourselves to.

This quarter also brought opportunities to learn, share knowledge, and develop new skills. Our Sketching and Drawing Workshop, together with our Work-Integrated Learning collaboration, gave students an opportunity to gain practical experience in visualising and communicating ideas. Their enthusiasm and feedback made this one of the highlights of the quarter and reinforced the value of creating opportunities for learning through practical experience.

This quarter, we also shared a glimpse into some of the technologies available at PDTS, including our Doosan DNM 4500 CNC Milling Machine and range of prototyping tools. These capabilities form an important part of how we turn ideas into practical, tangible solutions.

Beyond our technical capabilities, this quarter provided opportunities to connect with industry, regional partners and the wider innovation ecosystem. Our participation in SADC Industrialisation Week, along with our work in product development, design and branding, created opportunities to exchange ideas, build relationships and explore new areas of collaboration.

As we move towards the final quarter of the year, our ISO journey reminds us that innovation and quality must go hand in hand. Good ideas need the right processes, skills and commitment behind them to become solutions that people can trust and use.

I am proud of what the PDTS team continues to achieve and of the commitment they bring to every project and engagement. I also value the partnerships we have built with our clients, students, industry partners and collaborators, which continue to open new opportunities for growth and innovation.



As we move into the final quarter of the year, our focus remains on strengthening our capabilities, building meaningful partnerships and delivering solutions that create lasting value. There is much more to do, and we look forward to what lies ahead.

Thank you and warm regards,

Dr Shelly Mona

Deputy Director: PDTS

Where Ideas Begin: Freehand Sketching & Drawing

Recognising the importance of visual communication in the product development process, the Product Development Technology Station (PDTs) hosted its Introduction to Sketching and Drawing Workshop on 16-17 July 2026 at the CUT Hotel School. The two-day workshop focused on developing practical sketching and drawing skills that can help professionals, students, engineers, designers, innovators and entrepreneurs communicate their ideas more clearly and effectively. Sketching is much more than simply drawing. In a product development environment, a quick sketch can be used to explore an idea, explain a technical concept, communicate a design requirement, brainstorm possible solutions or provide a visual starting point for developing a new product. The ability to translate an idea from the mind onto paper can therefore play an important role in collaboration and innovation.

Participants were introduced to practical, hands-on techniques aimed at strengthening their confidence in visualising and communicating ideas. The workshop provided an opportunity to develop skills that can be applied across a variety of professional and academic environments; from engineering and product development to design, entrepreneurship and innovation.

Through initiatives such as the Introduction to Sketching and Drawing Workshop, PDTs continues to support the development of practical skills that contribute to innovation, problem-solving and product development. Because before an idea becomes a prototype, a product or an innovation, it often starts with something as simple (and as powerful) as a sketch.



Three Months of Progress, Innovation & Impact

Innovation does not happen in isolation. It grows through collaboration, curiosity, shared expertise and a commitment to finding practical solutions to real-world challenges. The July edition of the PDTS Newsletter brought together some of the people, projects, partnerships and activities that continue to shape the Product Development Technology Station's journey in driving innovation and product development.

In that edition, readers can explore how PDTS continues to build meaningful partnerships across industry and healthcare, while creating opportunities for knowledge exchange and collaboration. The newsletter also highlights initiatives aimed at empowering innovators through practical training and skills development, helping individuals turn knowledge and ideas into tangible solutions.

Technology and product development remain at the heart of PDTS's work. This edition showcases how advanced technologies, specialised equipment and technical expertise are being used to transform concepts into prototypes, products and practical solutions. From exhibitions and stakeholder engagements to product innovation, advanced manufacturing and skills development, the stories featured in this edition reflect the diverse role PDTS plays in supporting innovation and contributing to socio-economic development across South Africa.

More than simply a collection of updates, the newsletter provides a glimpse into the people and partnerships behind the work; and the impact that can be created when knowledge, technology and collaboration come together. We invite our stakeholders, partners, clients, industry colleagues and the broader innovation community to catch up on the latest PDTS stories and explore previous editions of the newsletter on our website.



Precision Meets Power: Our New CNC Capability

Ever wondered how we turn complex digital designs into high-precision, physical reality? Meet one of the workhorses of our Advanced Machining and Tooling Unit; the Doosan DNM 4500 3-Axis CNC Milling Machine!

The Doosan DNM 4500 in full force, utilizes high-pressure coolant to flush away chips and maintain perfect thermal stability while carving out a high-tolerance workpiece.

What do we use it for? Rapid Tooling & Injection Moulding: Machining high-quality mould inserts, retainer plates, and supports to help SMMEs dramatically lower the capital cost of polymer production.

Custom Parts & Prototyping: Crafting highly precise mechanical components, wheel hubs, and medical device tooling.

Verified Precision: Using the on-board controller (NX CAM software) to simulate tool paths before cutting, ensuring absolute accuracy every single time. If you are an entrepreneur looking to manufacture a limited run of a new product, or an established business needing specialized engineering support, our team can help to design, prototype, and manufacture your vision.



From Classroom to Concept: WIL Meets PDTS

The Introduction to Sketching and Drawing Workshop provided WIL students with an opportunity to step away from theory and put their creativity into practice through an engaging, hands-on learning experience.

The practical session on 22 July 2026 introduced students to the fundamentals of sketching, drawing and visual communication. As they worked through different techniques and exercises, it was encouraging to see their confidence grow and their ideas take shape on paper.

On 23 July 2026, the creative journey continued with another day of practical learning, collaboration and exploration. A group photograph captured the participants before they returned to their sketches, reflecting the enthusiasm and positive energy that characterised the workshop.

The workshop demonstrated that sketching is more than simply putting pencil to paper. It is a powerful tool for communicating ideas, exploring possibilities and visualising concepts; valuable skills for students preparing to enter creative, technical and innovation-driven fields.



In Their Own Words: The WIL Experience

Back to Basics: Students Reflect on the Value of Practical Training

The PDTS Introduction to Sketching and Drawing Workshop, presented in collaboration with the CUT Work Integrated Learning (WIL) Office, received encouraging feedback from participating students.

For many of the students, the workshop provided an opportunity to revisit the fundamentals of drawing — skills that can sometimes be overlooked while focusing on completing a final creative product. The practical nature of the training encouraged participants to slow down, strengthen their foundations and recognise the importance of developing skills through consistent practice.



Limpo Molefe, a Jewellery Design student in the Department of Design and Studio Art, appreciated the workshop's focus on the basics:

"The best part of this workshop for me is that we are learning the basic things about drawing. Many artists as students only focus on the finished product and we forget about the basics and fundamentals. So it circles us back to basics, and for us that is great."

For **Masemola Kgotso**, a Communication Design student in the Department of Design and Studio Art, the workshop reinforced an equally important lesson — skills develop through time, practice and perseverance:

"What I've learned about this workshop is that practice makes perfect, and a skill can be learned; not overnight but over time."

Their reflections capture an important message at the heart of practical skills development: strong creative and technical abilities are built from a solid foundation and strengthened through continued practice.



Through collaboration with the WIL Office, PDTS continues to create opportunities for students to gain practical skills that complement their academic learning and prepare them for the demands of the professional world.



Quality You Can Trust: PDTS Passes the Test

The Product Development Technology Station (PDTS) has successfully completed both its internal and external quality management audits, reaffirming its commitment to maintaining a robust Quality Management System (QMS) and upholding high standards across its operations.

The successful audit outcomes reflect the importance of consistent processes, continuous improvement and a strong focus on customer satisfaction — principles that underpin the delivery of reliable, high-quality product development services.

As PDTS prepares for recertification against the revised ISO 9001 Quality Management Standard, the organisation remains focused on strengthening its quality practices and ensuring that its systems and processes continue to meet the evolving requirements of the standard.

For PDTS, quality is an integral part of every stage of the product development journey. From initial concepts to the development of practical solutions, a commitment to quality helps ensure that clients and future partners can rely on professional, consistent and customer-focused services.



“At PDTS, quality is more than a standard; it is a commitment to excellence, continuous improvement and delivering value through innovation.”

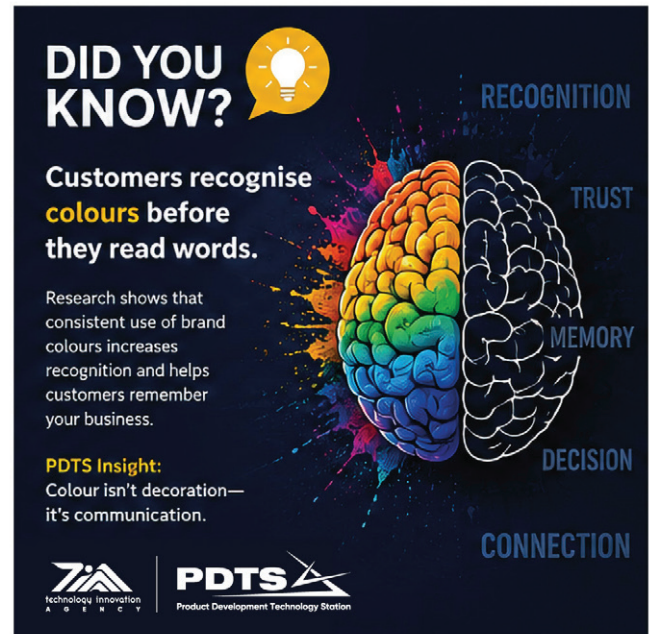
Behind the Brand: Design Insights from PDTs

Branding is about much more than a logo or an attractive design. It shapes how customers recognise a business, understand its value and build trust in its products and services. At the Product Development Technology Station (PDTs), our Graphic Design and Branding (GDB) Unit believes in sharing knowledge and promoting a better understanding of the role design plays in business success. Through our Did You Know? series, we aim to educate, inspire and empower businesses and innovators to make more informed branding decisions. In this edition, we explore three important principles of effective brand development.

1. Colour is a powerful recognition tool

Colour is often one of the first visual elements people notice when encountering a brand. A consistent colour palette helps customers identify a business across different platforms and marketing materials, strengthening brand recognition over time.

PDTs Insight: Colour is more than decoration; it communicates identity, creates recognition and helps your brand stand out.



2. Strong brands communicate solutions

Successful branding goes beyond promoting a product or service. It communicates the value a business offers and explains how its products or services address customers' needs and challenges. When customers understand the problem a product solves and the benefits it offers, they have a clearer reason to engage with the brand.

PDTs Insight: Don't just tell customers what you offer. Show them the value you bring and the difference you can make.



Behind the Brand: Design Insights from PDTs (Cont.)

3. Consistency builds trust

A recognisable brand maintains a consistent identity across its logo, colours, typography, messaging and communication platforms. When these elements vary unnecessarily, customers may struggle to recognise the business or form a clear impression of its identity. Consistent branding creates a more professional appearance and helps build familiarity and confidence among customers and stakeholders.

PDTs Insight: Every interaction with your audience is an opportunity to reinforce your brand. Keep your visual identity and message consistent.



Turning Design into Business Value: These principles demonstrate how thoughtful brand development can help businesses communicate more effectively, strengthen their identity and build lasting relationships with their customers.

Through the Did You Know? series, the PDTs Graphic Design and Branding Unit continues to share practical insights that highlight the strategic value of design and branding in business and product development.

Remember: A strong brand doesn't just look good; it communicates clearly, creates recognition and builds trust.



Advancing Innovation: Building Regional Connections

Supported by the Technology Innovation Agency (TIA), PDTS had the privilege of participating in the 9th SADC Industrialisation Week and Exhibition, held from 27–31 July 2026 at the Durban International Convention Centre (ICC).

Held under the theme “Resilient, Sustainable and Inclusive Industrialisation through Infrastructure Development, Agricultural and Critical Minerals Transformation in Pursuit of a Just World,” the event brought together government representatives, industry leaders, policymakers, innovators, researchers, entrepreneurs, and development partners from across the SADC region. The exhibition provided an opportunity to showcase PDTS’s capabilities in product development, advanced manufacturing, and technology-driven solutions, while engaging with stakeholders, sharing knowledge, and exploring opportunities for collaboration and partnership development.

The event highlighted the importance of innovation, science and technology, and strong partnerships in accelerating sustainable industrialisation and strengthening regional value chains across Southern Africa. We extend our sincere appreciation to TIA for the continued support and opportunity to participate in this important regional platform.



From Digital Design to Medical Reality

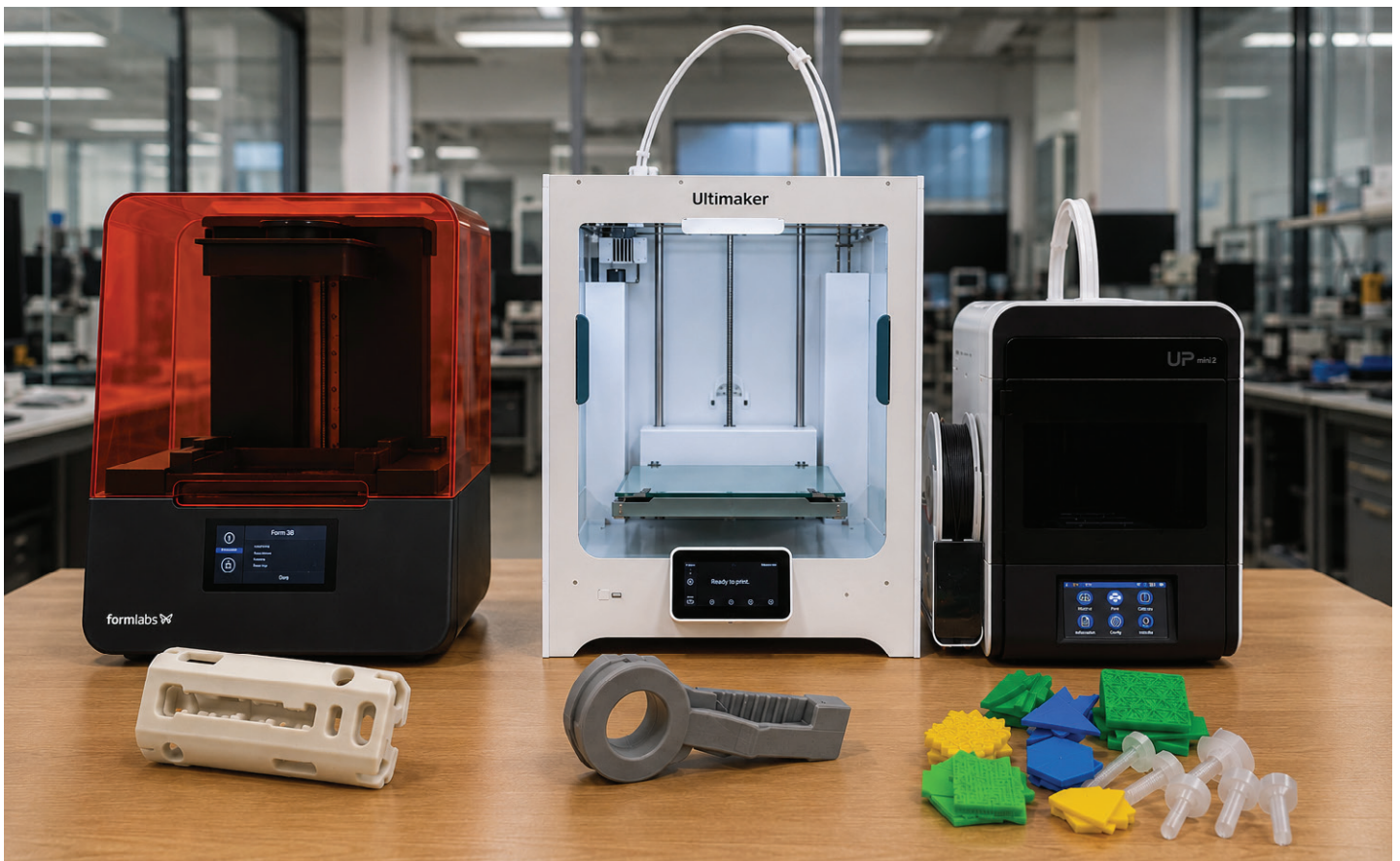
From design to functional prototype: 3D printing at PDTs, turning concepts into tangible solutions through rapid prototyping.

At the Product Development Technology Station (PDTs), 3D printing plays an important role in transforming design concepts into functional prototypes, particularly in the development of medical devices and other innovative products. Using specialised 3D printing equipment, including the **Formlabs Form 3B, UP Box+ and UP Mini 2**, our team can produce physical models that support the evaluation, refinement and development of product designs.

These technologies enable engineers to assess the form, fit and function of a design, evaluate ergonomics, test design concepts and identify potential challenges early in the development process. They also support the production of prototypes, jigs and fixtures, helping to streamline product development and inform engineering decisions. By incorporating 3D printing into the design and development process, PDTs can rapidly produce and refine prototypes, allowing concepts to be evaluated and improvements to be made before progressing to subsequent development stages.

This iterative approach enables the team to learn from each prototype, address design challenges and make informed decisions throughout the product development journey. In medical device development, this is particularly valuable in refining designs to meet functional requirements and support further evaluation. Through the integration of different 3D printing technologies, PDTs continues to strengthen its prototyping capabilities, helping innovators move from an initial concept towards a practical, tangible solution.

Faster iterations. Earlier insights. Better-informed design decisions.



New Expertise, New Possibilities

Welcome to the AMT Unit, Rassie!

PDTS has recently undergone some structural staff changes, and we are delighted to welcome Mr. Erasmus Adendorff to our Advanced Machining and Tooling (AMT) Unit.

With the workshop currently carrying a demanding workload, Erasmus (aka Rassie, as we know him) brings a wealth of multidisciplinary engineering experience from several fields to help us effectively carry the load. But his contribution extends far beyond his technical expertise. Rassie brings infectious energy, constant smiles, and some wonderfully weird daily interactions to the workshop floor!

Every high-performing mechanical system needs a good shock absorber, and Rassie's positive attitude is exactly the human element we need to help keep stress levels in check, morale high, and the daily grind a little more fun and manageable.

We are thrilled to have you as part of the team, Rassie. Welcome to the PDTS AMT Unit. We look forward to achieving great things together!



Innovation Doesn't Always Start from Scratch

Have an idea you would like to turn into a product? Are you struggling to develop an idea you have in mind? The Product Development Unit at PDTS is here to assist you!

Innovation is not only about creating something completely new—it can also involve enhancing existing products to improve their functionality, usability and market potential. Whether you have an innovative new product concept or an existing product that needs further development, our team can help you take the next step. Reach out to PDTS today for a consultation and let's explore the potential of your idea together.

“From the first spark of an idea to a tangible prototype, PDTS transforms concepts into products through creativity, design, engineering and innovation.”



Sketch Your Built Environment Concepts into Reality

Nurturing creativity through freehand sketching and drawing; building practical skills today to inspire the innovators of tomorrow.

The Product Development Technology Station (PDTs) collaborated with the Department of Built Environment over a two-week period to facilitate a **Freehand Sketching and Drawing Workshop**, creating an opportunity for students to strengthen their drawing skills and develop greater confidence in visual communication.

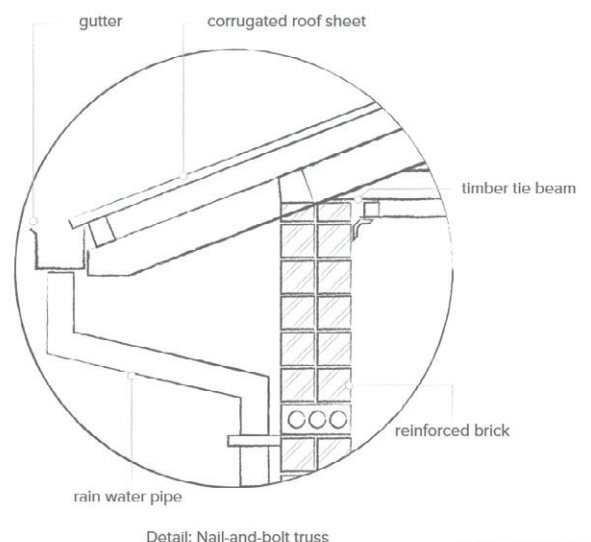
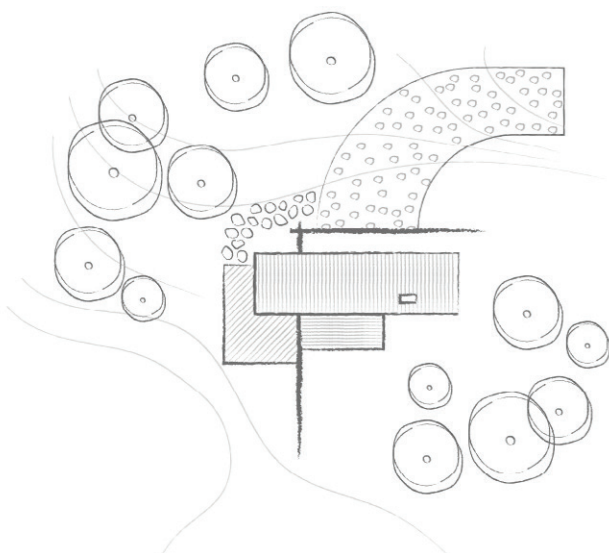
Freehand sketching is a valuable skill across a range of technical and creative disciplines, particularly in the built environment, where the ability to communicate ideas visually is essential. From capturing initial concepts and exploring design possibilities to illustrating spatial arrangements and communicating proposed solutions, a simple sketch can serve as a powerful starting point for innovation.

Through practical learning and guided exercises, the workshop aims to help participants develop their observation, drawing and visualisation skills. By exploring the fundamentals of freehand drawing, students can learn to translate the ideas in their minds into visual representations that others can understand, interpret and develop further.

Beyond the technical aspects of drawing, the workshop also encourages creativity, experimentation and problem-solving. These skills can support students in their academic journeys and future professional careers, equipping them with additional tools to communicate their ideas effectively and approach design challenges with confidence.

The collaboration reflects the value of partnerships between academic departments and specialised technology development institutions. By combining academic knowledge with practical skills development, PDTs and the Department of Built Environment are investing in opportunities that complement classroom learning and encourage students to explore their creative potential.

We believe that when we plant the seeds of knowledge and nurture creativity today, we help cultivate the innovators, designers and problem-solvers of the future.



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Six Creative Minds. One Winning Label.

The countdown to **Intervarsitybrew™ Brewing & Tasting 2026** is on, and we are proud to introduce the distinguished panel of judges who will bring their expertise, creativity and industry knowledge to this year's **Best Label Design Competition!**

Managed and convened by **Ms. Miralde Kotze** of the Product Development Technology Station (PDTs), with the assistance of **Ms. Crystal Newman** from the Centre for Rapid Prototyping and Manufacturing (CRPM), the category celebrates the creativity, innovation and design talent of university students from across South Africa.

This year's judging panel brings together accomplished professionals representing the design, branding, creative and beverage industries. Their diverse perspectives and professional experience will play a vital role in recognising the most original, visually striking and effective beer label designs.

Intervarsitybrew™ 2026 | 22–24 October 2026 | Central University of Technology, Free State

Hosted by CUT and co-hosted by BASA, in collaboration with CAFSAB and the CUT Hotel School.



Miralde Kotze
Design Judges Convenor



Crystal Newman
Design Judges Assistant



Tracey Venter
SAB ZITECH Africa



Carien van Eck
National Museum



Charina Barlett
HeSheDigital



Hester Bergh
Trill



Archy Hlahla
BASA



Hennie de Klerk
CHAOS Studio



Leonard Botha
Metano Media Advertising

The Intersitybrew Label Design Judging is proudly sponsored by PDTs



BEER ASSOCIATION
OF SOUTH AFRICA



Beyond Compliance: Our Next ISO Chapter

PDTS prepares for the next chapter in quality excellence; strengthening our commitment to quality, innovation and continuous improvement.

The Product Development Technology Station (PDTS) is preparing for the transition to the upcoming ISO 9001 quality management standard, with an audit against the revised edition on the horizon. As part of this transition, PDTS will be updating its quality management systems and processes to align with the new requirements and ensure that our commitment to excellence remains at the heart of everything we do.

The revised standard places greater emphasis on key principles such as fostering a strong quality culture, promoting ethical behaviour, strengthening leadership accountability, embracing digital transformation, enhancing organisational resilience and integrating climate change considerations into quality management practices.

“At PDTS, our quality commitment is embedded in everything we do.”



Brewing Creativity: PDTs & Intervarsitybrew Since 2022

From brand creation to lasting collaboration: PDTs and Intervarsitybrew™; A creative partnership brewing innovation, identity and student talent since 2022.

Great brands are built on more than a logo — they tell a story, create recognition and bring people together around a shared vision. For the Product Development Technology Station (PDTs), this has been at the heart of its long-standing creative and branding partnership with **Intervarsitybrew™**.

The collaboration began in 2022 with the development and unveiling of the Intervarsitybrew™ brand, establishing a distinctive visual identity that captures the competition's spirit of creativity, innovation and collaboration among universities across South Africa.

Since then, PDTs has continued to nurture and manage the brand's visual identity, ensuring that it remains consistent, recognisable and relevant with each annual event. From promotional materials and digital platforms to event communications and other branded applications, PDTs provides ongoing creative support to maintain a cohesive and professional brand presence.

Drawing on its expertise in **graphic design, branding, visual communication and marketing**, PDTs plays an important role in bringing the Intervarsitybrew™ identity to life — helping the competition communicate its vision while celebrating the creativity, passion and talent of participating students.

This partnership reflects PDTs's commitment to using design and branding as strategic tools to support innovation, strengthen brand recognition and create meaningful connections between people, institutions and industries.



From Lines to Ideas: The Group in Action

From ideas to paper: CUT Mechanical Engineering students sharpened their sketching skills at PDTS; turning engineering concepts into visual possibilities through creativity, practical learning and skills development. On **10-11 September 2026**, the Product Development Technology Station (PDTS) welcomed ****10** Mechanical Engineering students from the Central University of Technology (CUT) for a two-day **Introduction to Freehand Sketching and Drawing Workshop**.

Facilitated by **Ms. Miralde Kotze and Ms. Kekeletso Phongola**, the workshop provided students with hands-on experience in the fundamental drawing techniques used to communicate engineering ideas visually.

One of the highlights was witnessing the students' enthusiasm, growing confidence and willingness to experiment with their newly acquired skills. As the workshop progressed, initial concepts developed into visual representations, allowing students to explore ideas, interpret shapes and begin expressing their own design thinking. The ability to sketch an idea is often the first step towards exploring its potential, communicating its purpose and bringing a concept closer to reality.

A big thank you to our talented CUT Mechanical Engineering students for their participation, curiosity and commitment throughout the workshop. We encourage you to keep sketching, keep exploring and keep challenging yourselves to see possibilities where others may see only a blank page.

Meet the participating students: In no particular order, we acknowledge the 10 students who participated in the workshop: Mr Boikokobetso Matsepe, Mr Tiholo Letshwenyo, Mr Boago Tshupetso Badukanye, Mr Thapeko Mokoena Collen, Mr Lebohlang Mantso, Mr Isaac Moyo, Mr Mokhele Mokhele, Mr Pabalelo Amos Mvumalela, Mr Lebogang Bokamoso Modiso, Mr Bongani Makome.



From Concept to 3D: Master the Essentials

Design. Create. Innovate. SOLIDWORKS Training at PDTS! **Turning concepts into professional 3D designs through practical, hands-on learning.

The Product Development Technology Station (PDTS) invited aspiring designers, engineers and innovators to take their technical skills to the next level through its practical **SOLIDWORKS Training Programme**.

The training offered participants an opportunity to explore the power of computer-aided design (CAD) and develop their ability to transform ideas into detailed, professional 3D models. Through practical learning, participants could build valuable technical skills and gain greater confidence in bringing product concepts to life.

Training details:

Date: 5–9 October 2026

Venue: ETB Building, Central University of Technology (CUT)

Time: 09:00–15:00

The programme supported skills development in digital design and product development, empowering participants with knowledge they could apply to engineering projects, product innovation and future design challenges.



The Response Is In: SolidWorks Is Fully Booked!

Fully Booked! SOLIDWORKS Training Sparks Strong Interest at PDTS!

Our SOLIDWORKS training programme reached full capacity!

The Product Development Technology Station (PDTS) was pleased to announce that its upcoming SOLIDWORKS Training Programme was officially fully booked, reflecting the strong interest in developing practical design and engineering skills.

Scheduled for **5-9 October 2026**, the training brought together registered participants for an opportunity to strengthen their computer-aided design (CAD) capabilities and explore how concepts could be transformed into professional 3D models.

The programme was designed to provide a practical learning experience, equipping participants with valuable technical knowledge to support product development, design innovation and engineering applications.

SOLIDWORKS ESSENTIALS TRAINING
05-09 OCTOBER 2026
08:00 - 15:00 | Room 105, ETB Building,
Central University of Technology, Free State, 20 President Brand Street, Bfn
Free to CUT Staff & Students - R 10 000 for external applicants
pdts@cut.ac.za

A sincere thank you to everyone who registered and showed enthusiasm for this training opportunity. Your interest reinforces the importance of accessible technical skills development in supporting innovation and preparing individuals for the evolving demands of design and engineering.

We looked forward to welcoming all registered participants to the CUT campus for a week of learning, creativity and hands-on design exploration.

Missed out this time? Keep an eye on PDTS communication channels for updates on future training opportunities and programmes.

MEET THE CREATIVE AND SKILLED TEAM



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LATEST NEWS ON PDTS