***Tshwane Youth Innovation Challenge (TYIC):***

**OFF-GRID DC POWER SOLUTIONS FOR INFORMAL SETTLEMENT ELECTRICITY**

**2025 Call for Applications**

**Closing date: Monday, 25 August 2025**

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This initiative aims to identify the most effective and resource-efficient innovative solution for providing alternative electrification of informal settlements in Tshwane.

The challenge seeks scalable, innovative ideas for providing sustainable off-grid electricity systems to meet the energy needs of newly developing households in areas with limited or underdeveloped electricity distribution infrastructure.

Who is eligible to participate?

**ALL** registered students from Tshwane-based institutions of higher learning.

The Goal of the Tshwane Youth Innovation Challenge Programme

**Goal 1: Designing Low-Cost, Green Energy Solutions for Informal and Low-Income Housing**

In alignment with the City of Tshwane’s objective to provide low-cost housing solutions supported by alternative electricity through green technologies, this goal challenges participants to propose innovative, practical solutions for energy access in underserved communities. Specifically, participants are tasked with developing a micro, low-cost Direct Current (DC) photovoltaic (PV) system capable of powering a one- or two-section informal dwelling or low-cost household.

The focus is on affordability, simplicity, and scalability—ensuring that the solution is not only technically viable but also feasible for deployment in the real-world context of Tshwane’s informal and low-income settlements.

**Goal 2: Shifting Perceptions and Driving Adoption of Solar Energy in Informal Settlements**

One of the key barriers to the adoption of renewable energy—particularly solar—in informal settlements is the lack of awareness, coupled with widespread misconceptions about its relevance, reliability, and affordability. For many residents, solar technology is either seen as too expensive, not dependable, or simply misaligned with their day-to-day realities.

This goal seeks to explore: How might we increase awareness, desirability, and adoption of renewable energy, especially solar solutions within informal settlements in the City of Tshwane? The objective is to reposition solar energy not as a fallback or second-rate alternative, but as a smart, cost-effective, and aspirational choice technology that is not only functional but also culturally resonant and socially desirable, even 'cool.'

Important Information to Note

* The idea/concept/product/solution must be *innovative* and targeted at addressing a solution of providing off-grid DC-powered solutions for informal settlements.
* An idea/concept/product/solution is considered *innovative* if it is new and has not been implemented before to solve the identified societal challenge or is an improvement over existing solutions wherein the improvement provides a significant benefit to the target audience or market.

Application and Assessment Process

Call for proposal

Submit proposal

Pre-selection & Review &shortlisting

D1

Bootcamp

Awards Ceremony

UniVentures

Final Pitch

Full Application Submission

Exit

Yes

D2

Yes

No

No!

Exit

**Step 1. Call for Proposal**

The call for proposals is announced on 11 July 2025

**Step 2. Pre-selection**

Interested participants must submit a proposal in the prescribed application template/form (Link to Form).

Proposals must be submitted to dittc@Unisa.ac.za by the due date – 25 August 2025

Proposals will be evaluated based on the criteria below:

**Evaluation Criteria for Pre-proposals (100% Total Weighting):**

* **Problem Definition (20%)** – Clarity in identifying and defining the societal challenge.
* **Innovation (50%)** – Novelty of the solution or significant improvement over existing solutions.
* **Feasibility (20%)** – Viability considering technical aspects, team, partnerships, financial resources, and timelines.
* **Potential Impact (10%)** – Expected positive effect on the identified challenge.

**3. Ignite Bootcamp**

Qualifying projects will be invited to a **five-day virtual or in-person Bootcamp**, where participants will:

* Refine their proposals.
* Receive mentorship.
* Submit their final proposals at least seven days after the Bootcamp (no late submissions allowed).

**4. Assessment by the Challenge Committee**

All complete proposals will be evaluated by the TYIC committee based on the following criteria (**100% Total Weighting)**:

* **Problem Definition (5%)** – Understanding of the identified challenge.
* **Customer/User Definition (5%)** – Clarity in identifying target customers and users.
* **Innovation (35%)** – Degree of originality and differentiation from existing solutions.
* **Feasibility (15%)** – Technical and financial viability.
* **Capabilities (15%)** – Expertise of the team or individual applicant.
* **Sustainability (10%)** – Long-term viability of the proposed solution.
* **Potential Impact (10%)** – Societal benefit of the solution.
* **Quality of Submission/Presentation (5%)** – Clarity and professionalism.

**5. Final Pitch and Award Ceremony**

* Qualifying projects will be invited toappear and pitch before the external panel of judges.
* Winners will be presented with the certificate and award.

**5. Contracting**

The winning applicants will be required to conclude a contract agreement with Unisa or participating partners (Tshwane-based institutions of higher learning)

**6. Acceleration Phase**

* Release of **Funding in tranches:** Funds dispensed in tranches based on progress and compliance.
* **Mentorship:** Access to dedicated mentors for project development.
* **Incubation Services:** Where available, incubation support will be provided.
* **Expert Access:** Commercialization specialists, IP professionals, and product design experts.
* **Marketing Support:** Assistance in promoting the concept.

Inquiries may be directed to:

dittc@unisa.ac.za ***(012 429 8549)***