Africa-Wide Green Building Research Challenge 2026

Two-Page Competition Brief

Purpose of the Challenge

The Challenge promotes climate-responsive, human-centred, and resource-efficient design across African universities and early-career professionals. Participants develop feasible low-carbon design solutions aligned with recognised green building strategies.

What Participants Will Explore

- Passive and active climate-smart design strategies
- Human-centered responses to people, place, and community
- Low-carbon, affordable and context-appropriate materials
- Practical solutions grounded in research and African climate contexts

Core Evaluation Pillars

- Energy performance — reducing operational energy demand
- Water efficiency — lowering potable water consumption
- Material optimisation — reducing embodied carbon and promoting durability

Design Task

Design a climate-responsive, resource-efficient architecture studio (or equivalent small public building) in any African context. Show how the design achieves improvements over a conventional baseline.

- Apply climate and passive design principles
- Show estimated 15–20% improvements in energy, water or materials
- Include a basic performance justification
- Explain choices on orientation, shading, natural ventilation, systems and materials

Who can participate?

- Students in architecture, engineering or built-environment programmes
- Recent graduates and young professionals
- Self-taught learners and career-switchers interested in sustainability

Participants may join individually or as teams. Only one submission is required per team.

Three-Step Process

- Register — Complete the online registration form.
- Develop Your Design — Prepare drawings, calculations, sustainability explanation and 3D visuals.
- Submit — Upload all required files before the deadline.

Submission Requirements

- Performance calculations (energy, water, materials)
- Environmental performance summary (PDF)
- Architectural drawings — plans, sections, elevations
- Sustainability explanation (1–2 pages)
- 3D images or renderings
- Optional: climate diagrams, simulations or research materials

Virtual ID Verification

Participants verify their Virtual ID before joining virtual briefings using the official CGRC portal.

Data Use

Information collected is used only for administering and evaluating the challenge and will not be shared without consent.

Contacts

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