**Postgraduate (MEng) opportunities: Hydrogen Engineering Research**

**Location:** Department of Chemical Engineering, Stellenbosch University, Stellenbosch

**Degree level:** Research-based master’s degree in chemical engineering (one position)

**Commencement**: The successful candidate will be required to start postgraduate studies in March 2025.

The global transition to clean, clean renewable fuels, such as hydrogen as an alternative to fossil fuels, is driven by the urgent need to achieve the carbon dioxide emission reductions over the next 30 years. In South Africa, this transformation will require the development of a **diversified energy eco-system**, particularly through adaptive technologies for centralised locations. Hydrogen will play a key role in the **green economy** and will be an essential part of this evolving energy mix.

Currently green hydrogen is primarily produced through water splitting or electrolysis, but these processes remain highly energy-intensive and expensive. As a result, alternative pathways to cost-effective, low carbon hydrogen production are being explored, including methane pyrolysis.

Aligned with the *Green Hydrogen Strategy* and *Just Energy Transition*, research under the Green Hydrogen Chair and Engineering Research Platform at Stellenbosch University is advancing innovative hydrogen technologies. As part of this initiative, one funded Master’s opportunity is available for a highly motivated postgraduate student to contribute to an experimentally based engineering project on the **pyrolysis of methane derived from biogas**. This research will support low-carbon hydrogen production by investigating the **thermocatalytic decomposition of methane**.

**Requirements:** Applicants must have good academic record (preferably with a course aggregate of >65%) and hold a four-year undergraduate BEng. or BSc. Eng. degree in Chemical Engineering from an accredited tertiary institute.Preference will be given to South African citizens and permanent residents who display academic excellence.

**Application:** Cover letter, CV, complete academic transcripts and the contact details of at least two academic references. Merge all documents into a single PDF and attach it to the application. Incomplete applications will not be considered. Applications can be submitted to Prof Prathieka Naidoo at [prathiekan@sun.ac.za](mailto:prathiekan@sun.ac.za).

\*Stellenbosch University reserves the right not to fill the position.