



UNISA is the only publicly funded institution in South Africa dedicated to distance education. In keeping with its mandate as a comprehensive, open and distance learning tertiary institution offering a variety of academic and career-focused programmes, the University is inviting applications for positions in the **COLLEGE OF SCIENCE ENGINEERING AND TECHNOLOGY (CSET)**.

To be considered for a position, applicants must meet all the generic requirements **plus** the specific requirements as stated per position. If found suitable for appointment, Unisa may offer an applicant a position at a level other than the level that was applied for. Furthermore, Unisa reserves the right to offer the applicant a contract appointment.

ACTIVITY:



TEACHING STATEMENT:

All applicants to attach a teaching statement (max 2 000 words) to their application as specified in one of the following options:

Option A: External applicants and internal applicants (from non-academic positions) – Describe how you intend to approach teaching and learning by taking into account the information in the policies listed below:

- Unisa's Tuition Policy
- Unisa's Open Distance Learning Policy
- Unisa's Assessment Policy
- Curriculum Policy
- Open Distance Learning (ODL) Pedagogy

The above-mentioned Policies of UNISA can be accessed on the web using a search engine. In the event that you cannot trace the ODL Pedagogy policy finalise your teaching statement without it.

Option B: Internal applicants (from academic positions) –

Explain your:

- Involvement in, or approach to, Open Distance Learning
- Approach to fostering a learner-centered approach.
- Involvement in, or approach to, teaching at either undergraduate or postgraduate level.
- Involvement in developing study material as an individual or in a team approach.
- The extent to which you have, or would, use an electronic learning platform for teaching.
- Your pass success rates in the courses you teach/taught and your plan to increase or maintain these rates.
- A peer and student evaluation of your teaching
- Your involvement in and provision of learner support to students

ACTIVITY:



The teaching statement must be supported by a portfolio of evidence which may be requested from short-listed candidates at the interview.

Candidates are expected to submit a research reflection or portfolio.

ACTIVITY:



[APPLICATION FORM FOR A PERMANENT ACADEMIC POST](#)

ACTIVITY:



FOR MORE INFORMATION ON ACADEMIC POSITIONS (LEVELS) OPEN THE LINK OF THE POSITION YOU WISH TO APPLY FOR:

[POSITION: PROFESSOR](#)

[POSITION: ASSOCIATE PROFESSOR](#)

[POSITION: SENIOR LECTURER](#)



The following positions exist in the various departments:

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY (CSET)

Florida Campus

INSTITUTE FOR CATALYSIS AND ENERGY SOLUTIONS (ICES)

PERMANENT POSITIONS/ 5 YEARS CONTRACT

PROFESSOR: HETEROGENEOUS CATALYSIS FOR CLEAN FUEL PRODUCTION X 2

PROFESSOR: ADVANCED CATALYTIC MATERIALS X 1

PROFESSOR: ADVANCED ENERGY MATERIALS X 1

ASSOCIATE PROFESSOR: CATALYSIS RESEARCH X2

ASSOCIATE PROFESSOR: ENERGY CONVERSION RESEARCH X1

SENIOR LECTURER: CATALYSIS AND ENERGY RESEARCH X 8

The Institute for Catalysis and Energy Solutions (ICES) is a research institute of the College of Science, Engineering and Technology (CSET) that addresses the current and emerging issues relating to clean energy solutions, to solve energy problems of tomorrow. ICES will focus on the development of advanced strategic leadership in fundamental and applied catalysis research for energy solutions, by educating and mentoring graduate students via multidisciplinary collaborations with researchers and industry, towards a more climate change responsive and sustainable world for better communities. ICES has two Research Focus Areas of Catalysis focus area and Energy Solutions focus area. The Catalysis focus area is divided into three thematic areas namely, Heterogeneous Catalysis for Clean Energy Production, Advanced Catalytic Materials and Catalytic Reaction Engineering, Modelling & Process Synthesis. The Energy Solutions focus area is also divided into three thematic areas; Biomass, Waste & CO₂ Valorisation, Energy Conversion Devices and Advanced Energy Materials.

Professor (X2): Heterogeneous Catalysis for Clean Fuel Production (Ref.ICES/New/P-HC/10-2023)

Post specific requirements Professor.

- Doctorate in Chemical Engineering or Chemistry or equivalent
- Candidates must have a proven track record in the field of Clean Fuel Production through a Heterogeneous Catalytic Process.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion in the relevant research field.
- Involvement in Engaged Scholarship or Community Engagement

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- Proven record of mentoring of junior staff
- Ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

Recommendations:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- NRF rating or eligibility to apply for rating.
- Involvement in industry-based research

Professor (X1): Advanced Catalytic Materials (Ref.ICES/New/P-ACM/20-2023)

Post specific requirements Professor.

- Doctorate in Chemistry or Chemical Engineering or equivalent
- Candidates must have a proven track record in the field of Advanced Catalytic Material Design and application in Photocatalytic or Electrocatalytic Process.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion in the relevant research field.
- Involvement in Engaged Scholarship or Community Engagement
- Proven record of mentoring of junior staff
- Ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

Recommendations:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- NRF rating or eligibility to apply for rating.
- Involvement in industry-based research

Professor (X1): Advanced Energy Materials (Ref.ICES/New/P-AEM/30-2023)

Post specific requirements Professor.

- Doctorate in Material Science, Chemical Engineering or Chemistry or equivalent
- Candidates must have a proven track record in the field of Advanced Energy Material Synthesis, Characterization, and application Design, in the field of Energy Material Application.
- 5 years teaching/work/relevant experience

- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion in the relevant research field.
- Involvement in Engaged Scholarship or Community Engagement
- Proven record of mentoring of junior staff
- Ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

Recommendations:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- NRF rating or eligibility to apply for rating.
- Involvement in industry-based research

Associate Professor (X2): Catalysis Research (Ref.ICES/New/AP-CR/40-2023)

Post specific requirements for Associate Professor

- Doctorate in Chemical Engineering or Chemistry or equivalent
- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters or Doctoral) students to completion in the relevant research field.
- Involvement in Engaged Scholarship or Community Engagement

Field of Expertise for this position

Candidates must have a proven track record in one of the following fields:

- Advanced Catalytic Materials Design and application in Thermal Catalytic or Photocatalytic, or Electrocatalytic Processes, or
- Process Design, Systems Engineering, Process Optimization of Energy Systems or Process Simulation or Applied Thermodynamics.

Recommendation:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- NRF rating or eligibility to apply for rating.
- Involvement in industry-based research

Associate Professor (X1): Energy Conversion Research (Ref.ICES/New/AP-ECR/50-2023)

Post specific requirements for Associate Professor

- Doctorate in Material Science, Chemical Engineering or Chemistry or equivalent
- Candidates must have a proven track record in the field of Energy storage Material Synthesis and Characterization; or Energy storage devices design and applied in portable, Mobile, and Stationary Solutions, or Product Design using the Synthesized Material
- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters or Doctoral) students to completion in the relevant research field.
- Involvement in Engaged Scholarship or Community Engagement.

Recommendation:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- NRF rating or eligibility to apply for rating.
- Involvement in industry-based research

Senior Lecturer (X8): Catalysis Energy Research (Ref.ICES/New/SL-CER/60-2023)

Post specific requirements for Senior Lecturer:

- A Doctoral degree in Chemical Engineering or Chemistry or equivalent
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in accredited journal articles, peer-reviewed conference proceedings, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- Involvement in Engaged Scholarship or Community Engagement.

Field of Expertise for this position

- Candidates must have a proven track record in one of the following fields:
 - Clean Fuel Production through a Heterogeneous Catalytic Process, or
 - Design and application of Photocatalytic Material or Electrocatalytic Material for Energy Processes, or

- Process Synthesis, Systems Engineering, Process Optimization, Process Simulation, Process Modelling and Applied Thermodynamics, or
- Energy storage materials, or
- Fuel cell, or
- Waste to energy process or utilization, CO₂ utilization

Recommendations:

- Professional Registration with a relevant professional body
- Participation in Departmental, School, College and University committees including workplace committees or task teams and voluntary associations.
- Eligibility to apply for NRF rating
- Involvement in industry-based research
- A proven record of supervision of postgraduate students to completion in the relevant research field.

Salary	:	Remuneration is commensurate with the seniority of the position
Assumption of duty	:	As soon as possible
Enquiries	:	Mr TA Masego – 011 670 9237 Mr J Maano – 011 670 9081
Closing Date	:	24 February 2023

Your [APPLICATION FORM FOR A PERMANENT ACADEMIC POST](#) must be accompanied by a COMPREHENSIVE CURRICULUM VITAE and;

- identity document (*including passport, work permit, permanent residence permit or proof of nationalisation if applicable*) (certified copies within the previous six months).
- all educational qualifications (certified copies within the previous six months).
- academic transcripts/records (certified copies within the previous six months).
- proof of SAQA verification for foreign qualifications (*if applicable*) (certified copies within the previous six months)
- **for ACADEMIC POSITIONS** a teaching statement (refer to page 1 of advertisement).
- UNISA reserves the right to authenticate all qualifications without any further consent from the applicant.
- The contact details of three contactable references must be provided, one of which must be from your present employer excluding your current line manager if you are an internal Unisa applicant
- **Late, incomplete, and incorrect applications will not be considered.**
- Unisa is not obliged to fill an advertised position
- *Appointments will be made in accordance with Unisa's Employment Equity Plan and other applicable legislation.*



- **We welcome applications from Persons with Disabilities**

ACTIVITY:



- Applications must be emailed to CSET2PA@unisa.ac.za
- If you apply for more than one position, each application must be on a separate email.

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Applications emailed to the incorrect email address will not be considered.
Late, incomplete, and incorrect applications will not be considered.

All applications should reach UNISA before 16h00 on the closing date.

Correspondence will be limited to short-listed candidates only. If you have not been contacted within two months after the closing date of this advertisement, please accept that your application was not successful.