



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 SCIENCES ENGINEERING AND TECHNOLOGY**.

**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 other than academic positions)** – Describe how you intend to approach teaching and learning by considering 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 (ODeL) Pedagogy

The above-mentioned Policies of UNISA can be accessed on the web using a search engine. If you cannot trace the ODeL 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-centred 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

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

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**

**POSITION: LECTURER**

**POSITION: JUNIOR LECTURER**

 The following positions exist in the various fields :

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
INSTITUTE FOR NANOTECHNOLOGY AND WATER SUSTAINABILITY (iNanoWS)  
PERMANENT POSITIONS**

**PROFESSOR X6**

**ASSOCIATE PROFESSOR X4**

**SENIOR LECTURER X11**

The Institute for Nanotechnology and Water Sustainability (iNanoWS) is a research Institute which was established in September 2014 as a research unit under the College of Science, Engineering and Technology (CSET) which has recently been approved as an institute with effect from January 2021. It is a strategic Research Institute at the College of Science, Engineering and Technology (CSET) that will address current and emerging issues relating to Water Quality and Water Scarcity. iNanoWS will focus on the development of Nanotechnology enhanced smart materials and their application in Water Treatment and Water Sustainability. iNanoWS has two Research Focus areas namely Nanoscience and Water Sustainability. The Institute will be further divided into the following thematic areas include Membrane Science and Technology, (nano)Composites, Nanostructured Materials and Electrochemistry, the Urban Water Cycle and Water Treatment Technologies, Drug Delivery (Water and Health) and Analytical & Environmental Research.

**PROFESSOR (X1) (ANALYTICAL AND ENVIRONMENTAL RESEARCH)**

***Ref: iNanoWS/ TA /01-2020***

**Post specific requirements**

**Qualifications:**

- Doctorate in Analytical Chemistry, Water Science/Environmental Science or Environmental Engineering or equivalent

**Requirements:**

- Candidate must have a proven track record in the field of Analytical and Environmental research with specific expertise on applications to both chemical and microbial emerging pollutants in aquatic systems.
- Proven research track record in ability to handle Analytical Instruments, analytical work covering different type of matrices, with aspects of toxicology and risk assessment.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.

- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

**Recommendation:**

- An NRF rating will be an added advantage.
- Registration with South African Professional bodies such as SACNASP and ECSA.

**PROFESSOR (X1) (MEMBRANE SCIENCE AND TECHNOLOGY)**

**Ref: iNanoWS/ TA /02-2020**

**Post specific requirements for Professor**

**Qualifications:**

- Doctorate in Chemistry, Applied Chemistry, Nanoscience or Equivalent

**Requirements:**

- Candidate must have a proven track record in the field of Membrane Science and Technology.
- The candidate must demonstrate excellent understanding of the fundamentals of membrane Technology; specifically, the design, preparation and application of innovative membrane material for various purposes such as water treatment, seawater desalination and gas separation.
- 5 years teaching/work/relevant experience.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.
- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

**Recommendations:**

- An NRF rating will be an added advantage
- Registration with South African Professional bodies such as SACNASP and ECSA

**PROFESSOR (X2) NANO-STRUCTURED MATERIALS**

**Ref: iNanoWS/ TA /03-2020**

**Post specific requirements for Professor**

**Qualifications:**

- Doctorate in Chemistry, Materials Science/Engineering, Nanoscience or equivalent

**Requirements:**

- Proven research track record in the synthesis of nanostructured materials and other materials based on composite structures with applications in Water Treatment.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level:

Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.

- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.
- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

### **Recommendations**

- An NRF rating will be an added advantage
- Registration with South African Professional bodies such as SACNASP and ECSA

### **PROFESSOR (X1) (DRUG DELIVERY)**

**Ref: iNanoWS/ TA /04-2020**

**Post specific requirements for Professor**

#### **Qualifications:**

- Doctorate in Applied Chemistry, Materials Science/Engineering, Nanoscience, Water/Environmental Science or Environmental Engineering or equivalent

#### **Requirements:**

- Candidate must have a proven track record in the field of drug delivery for Health in water systems.
- 5 years teaching/work/relevant experience.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.
- Mentoring of junior staff and the ability to attract funding and collaboration with other researchers, both nationally and internationally.
- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

### **Recommendations**

- An NRF rating will be an added advantage
- Registration with South African Professional bodies such as SACNASP and ECSA

### **PROFESSOR (X1) URBAN WATER CYCLE AND WATER TREATMENT TECHNOLOGIES**

**Ref: iNanoWS/ TA /05-2020**

**Post specific requirements for Professor**

#### **Qualifications:**

- Doctorate in Chemistry, Water Science/Environmental Science or Environmental Engineering or Equivalent

**Requirements:**

- Candidate must have a proven track record in the field of the Urban Water Cycle and treatment technologies with particular expertise in Natural Organic Matter dynamics in drinking water treatment, emerging micro pollutants research and design of innovative water treatment technologies.
- 5 years teaching/work/relevant experience.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.
- Mentoring of junior staff and the ability to attract funding and collaboration with other researchers, both nationally and internationally.
- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

**Recommendations**

- An NRF rating will be an added advantage
- Registration with South African Professional bodies such as SACNASP and ECSA

**ASSOCIATE PROFESSOR (X1) (URBAN WATER CYCLE AND WATER TREATMENT TECHNOLOGIES)**

*Ref: iNanoWS/ TA /06-2020*

**Post specific requirements for Research Associate Professor****Qualifications:**

- Doctorate in Chemistry Water Science/Environmental Science or Environmental Engineering or Equivalent

**Requirements:**

- Candidate must have a proven track record in the field of the Urban Water Cycle and treatment technologies with particular expertise in Natural Organic Matter dynamics in drinking water treatment, emerging micro pollutants research and design of innovative water treatment technologies.
- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Six accredited research output points over the previous 5 years or four accredited research output points over the previous 3 years
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- Involvement in industry-based research, community engagement and the ability to attract external funding.

**Recommendation:**

- Registration South African Professional Bodies such as SACNASP and ECSA.
- A proven track record of successful mentoring of Postdoctoral Fellows.

**ASSOCIATE PROFESSOR (X1) (MEMBRANE SCIENCE AND TECHNOLOGY)**

**Ref: iNanoWS/ TA /07-2020**

**Post specific requirements for Associate Professor**

**Minimum Qualifications:**

- A Doctorate in Chemistry, Applied Chemistry, Nanoscience or equivalent

**Requirement:**

- Candidate must have a proven track record in the field of Membrane Science and Technology for Water Treatment Purposes.
- The candidate must demonstrate excellent understanding of the fundamentals of membrane Technology; specifically, the design, preparation and application of innovative membrane material for various purposes such as water treatment, seawater desalination and gas separation.
- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Six accredited research output points over the previous 5 years or four accredited research output points over the previous 3 years
- A proven record of supervision of postgraduate students (Masters and Doctoral) to completion.
- Involvement in industry-based research, community engagement and the ability to attract external funding.

**Recommendation:**

- Registration with South African Professional Bodies such as SACNASP and ECSA.
- A proven track record of successful mentoring of Postdoctoral Fellows

**ASSOCIATE PROFESSOR (X2) (NANOSTRUCTURED MATERIALS)**

**Ref: iNanoWS/ TA /08-2020**

**Post specific requirements for Associate Professor**

**Minimum Qualifications:**

- A Doctorate in Chemistry, Materials Science/Engineering or equivalent

**Requirements:**

- Candidate must have a proven track record in the field of photocatalytic materials, Advanced Oxidation Processes, synthesis of nanostructured materials and other materials based on composite structures with application in Water Treatment well as for application in Acid Mine Drainage remediation.
- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: Six accredited research output points over the previous 5 years or four accredited research output

*points over the previous 3 years.*

- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- Involvement in industry-based research, community engagement and the ability to attract external funding.

**Recommendation:**

- Registration with South African Bodies such as SACNASP and ECSA
- A proven track record of successful mentoring of Postdoctoral Fellows.

**SENIOR LECTURER (X2) (MEMBRANE SCIENCE AND TECHNOLOGY)**

**Ref: iNanoWS/ TA /09-2020**

**Post specific requirements for Senior Lecturer**

**Minimum Qualifications:**

- A Doctorate in Chemistry, Materials Science or equivalent

**Requirements:**

- The candidate must demonstrate excellent understanding of the fundamentals of membrane Technology; specifically, the design, preparation and application of innovative membrane material for various purposes such as water treatment, seawater desalination and gas separation.
- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water and resource recovery.
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: five accredited research output points over the previous 5 years or three accredited research output points over the previous 3 years.

**Recommendation:**

- A Proven record of Supervision of Masters Students.

**SENIOR LECTURER (X1) (ANALYTICAL AND ENVIRONMENTAL RESEARCH)**

**Ref: iNanoWS/ TA /10-2020**

**Post specific requirements for Senior Lecturer**

**Minimum Qualifications:**

- A Doctorate in Analytical Chemistry, Applied Chemistry, Water/Environmental Science or Environmental Engineering or equivalent

**Requirements:**

- Candidates must have a track record in the field of analytical and environmental research.
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference

**HOW TO APPLY: See last page of advertisement**

proceedings or journals in line with the Unisa Research and Innovation Policy at this level: *five accredited research output points over the previous 5 years or three accredited research output points over the previous 3 years.*

**Recommendation:**

- A Proven record of Supervision of Masters Students.

**SENIOR LECTURER (X1) (URBAN WATER CYCLE AND WATER TREATMENT TECHNOLOGIES)**

**Ref: iNanoWS/ TA /11-2020**

**Post specific requirements for Senior Lecturer**

**Minimum Qualifications:**

- Doctorate in Chemistry, Water Science/Environmental Science or Environmental Engineering or Equivalent

**Requirements:**

- Candidate must have a proven track record in the field of the Urban Water Cycle and treatment technologies with particular expertise in Natural Organic Matter dynamics in drinking water treatment, emerging micro pollutants research and design of innovative water treatment technologies.
- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water and resource recovery.
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: *five accredited research output points over the previous 5 years or three accredited research output points over the previous 3 years.*

**Recommendation:**

- A Proven record of Supervision of Masters Students.

**SENIOR LECTURER (X3) (NANOSTRUCTURED MATERIALS)**

**Ref: iNanoWS/ TA /12-2020**

**Post specific requirements for Senior Lecturer**

**Minimum Qualifications:**

- A Doctorate in Chemistry, Materials Science or equivalent

**Requirements:**

- Proven research track record in the synthesis of nanomaterials and other materials based on with application in Water Treatment well as for application in Acid Mine Drainage remediation.
- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water and resource recovery. This must



research on polymer nanocomposite-based methods for water quality monitoring and decontamination.

- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water and resource recovery. This must include research on polymer nanocomposite-based electrochemical methods for water quality monitoring and decontamination.
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: *five accredited research output points over the previous 5 years or three accredited research output points over the previous 3 years.*

**Recommendation:**

- A Proven record of Supervision of Masters Students.

**SENIOR LECTURER (X4) APPLIED ELECTROCHEMISTRY**

**Ref: InanoWS/ TA /13-2020**

**Post specific requirements for Senior Lecturer**

**Minimum Qualifications:**

- A Doctorate in Chemistry, Materials Science or equivalent

**Requirements:**

- Candidate must have a track record in the field of Applied electrochemistry, sensors and biosensors with their application in water treatment and energy storage.
- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water, drug delivery and resource recovery. This must include research on nanomaterials-based electrochemical methods for water quality monitoring and decontamination.
- 3 years relevant teaching/work/relevant experience.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level: *five accredited research output points over the previous 5 years or three accredited research output points over the previous 3 years.*

**Recommendation:**

- A Proven record of Supervision of Masters Students.
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**Salary** : Remuneration is commensurate with the seniority of the position.

**Assumption of duty** : As soon as possible.

**Enquiries** : **011 670 9237 Mr T Masego**

**Closing Date** : **02 October 2020** (*Email application before close of business at 16:00*).

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 [CSET1PA@unisa.ac.za](mailto:CSET1PA@unisa.ac.za)
- If you apply for more than one position, each application must be in a separate email.
- Use the reference number as the subject line



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

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