WEARE HIRING

Faculty of Engineering and the Built Environment

Department: Mechanical, Industrial and Electrical Engineering

Professor: Electronics Engineering

Requirements

A Doctorate (NQF Level 10) in Electronics Engineering or equivalent/related qualification with at least ten (10) years of lecturing experience at tertiary education level and/or industry experience and an equivalent combination of relevant professional experience. Excellent English communication skills (oral and written). Proven competence in successful sourcing of research or project funding from third-party sources. Successful initiation and management of research projects. Experience in curriculum development at post-graduate level. Strong management/organisational and mentorship skills. Competence to develop high-quality course materials and teach in at least four (4) of the following courses at both undergraduate and postgraduate levels: Micro-controller Applications, Computer Architecture and Micro-processors, Embedded Systems, Artificial Intelligence, Internet-of-Things, Intelligent Robotics, Wireless Communications, Optical Communications and Electronic Systems Design. Ability to establish contacts and maintain links with the Electronics and telecommunications Industry. Sound research experience/profile, including twenty (20) publications in peer-reviewed journals/books/conference proceedings and successful supervision of at least three (3) Master's and one (1) Doctoral (research) students.

Professor: Renewable Energy Systems

Requirements

A Doctorate (NQF Level 10) in Electrical Power Engineering, Energy Engineering or Sustainable and Renewable Energy Systems with at least ten (10) years of lecturing experience at tertiary education level and/or industry experience and an equivalent combination of relevant professional experience. Excellent English communication skills (oral and written). Proven competence in successful sourcing of research or project funding from third-party sources. Successful initiation and management of research projects. Experience in curriculum development at post-graduate level. Strong management/organisational and mentorship skills. Competence to develop high-quality course materials and to teach in at least four (4) of the following post-graduate courses/fields: Energy Systems; Energy Management; Project Management; Energy Policy; Socio-ecological Impact Assessment; Participatory Mapping and Geographic Information Systems; Energy Economics; Sustainable Development; Wind and Ocean Energy Systems; Energy Storage Technologies; Solar Energy Resources and Technologies; Bio-energy; Research Techniques and Methodology. Ability to establish contacts and maintain links with the Sustainable and Renewable Energy Industry. Sound research experience/profile, including twenty (20) publications in peer-reviewed journals/books/conference proceedings and successful supervision of at least three (3) Master's and one (1) Doctoral (research) students.

Senior Lecturer: Electrical (Power) Engineering Requirements

A relevant Doctorate (NQF Level 10) with at least six (6) years of lecturing experience at tertiary education level and/or industry experience or an equivalent combination of relevant professional experience. Excellent English communication skills (oral and written). Proven competence in successful sourcing of research or project funding from third-party sources, successful initiation and management of research projects, curriculum development and strong management/organisational and mentorship skills. Competence to teach at least four (4) of the following post-graduate courses: Energy Systems; Solar Energy Resources and Technologies; Energy Economics; Energy Technologies; Bio-Energy. Competence to establish professional networks and to maintain links with the industry, as well as experience in developing post-graduate programmes, strong management skills and a proven record of raising substantial research funding. A credible record of lecturing, peer-reviewed publications, community engagement, prograduate levels.

Lecturer: Electrical (Power) Engineering (2 Posts) Requirements

A Master's degree (NQF Level 9) in Electrical Power Engineering with at least four (4) years of lecturing experience at tertiary education level and/or industry experience or an equivalent combination of relevant professional experience. Excellent English communication skills (oral and written). Competence to teach at least six (6) of the following courses: Power Semiconductor Devices and Converters; Electric Drives; Energy Conversion; Electrical Machines; Measurements and Instrumentation; Engineering Electromagnetics; Power Systems; Electrical Design; Automation and Automation Systems; Power Systems Protection; Power Systems Operation and Control. Competence to establish professional networks and to maintain links with the industry, as well as experience in developing under-graduate programmes. A credible record of peer-reviewed publications, community engagement, supervision of students (research) under-graduate level.

Laboratory Technician: Electrical (Power) Engineering Requirements

A Bachelor's degree (NQF Level 7) in Electrical Power Engineering with at least three (3) years experience in industry/workshop. Excellent English communication skills (oral and written). Competence in handling and maintaining electrical laboratory equipment. Ability to prepare and set practical laboratory sessions, set, mark and evaluate students' laboratory exercises, experiments and reports; Competence to teach the following courses: Electrical Installation and Workshop Technology and the electrical components of Workshop Practice. Ability to give practical training in the electrical workshop and in the laboratory.

Key Responsibilities

Oversee staff and student activities in the Power Laboratories and the Project Laboratory. Ensure all equipment in the laboratory is functioning optimally; Conduct laboratory induction sessions for students and supervise laboratory experiments. Set laboratory induction examination papers and memoranda; Mark, assess and evaluate students' laboratory exercises, experiments and reports; Evaluate laboratory practical exams. Ensure Laboratory rules and norms are strictly adhered to; Liaise with lecturers and store personnel with respect to equipment and components required for specific laboratory exercises; Maintain laboratory equipment and inventory lists.

Associate Professor: Thermofluids Engineering

Requirements

A relevant Doctorate (NQF Level 10) with at least seven (7) years of lecturing experience at tertiary education level and/or industry experience or an equivalent combination of relevant professional experience. Excellent English communication skills (oral and written). Proven competence in successful sourcing of research or project funding from third-party sources; successful initiation and management of research projects, curriculum development and strong management/organisational and mentorship skills. Competence to develop high-quality course materials and teach in at least three (3) of the following courses at both under-graduate and post-graduate levels: Thermodynamics, Fluid Mechanics, Thermofluids, Heat Transfer, Computational Fluid Dynamics and HVAC/R (Heating, Ventilation, Air-conditioning and Refrigeration). Competence to assume academic leadership, to establish professional networks and to maintain links with industry; as well as experience in developing post-graduate programmes. Sound research profile including ten (10) peer-reviewed journals/ books/conference proceedings and successful supervision of at least three (3) Master's (research) students.

