

CAREER OPPORTUNITY

The Council for Scientific and Industrial Research (CSIR) is a leading scientific and technology research organisation that researches, develops, localises and diffuses technologies to accelerate socio-economic prosperity in South Africa. The organisation's work contributes to industrial development and supports a capable state.

Research Group Leader: Pavement Design and Construction

About the job:

The CSIR Smart Mobility Cluster has a vacancy for a **Research Group Leader: Pavement Design and Construction** in the Transport Infrastructure Engineering impact area. The incumbent will be responsible for leading the development and growth of the research group and ensure the highest quality standards in the group's outputs. This position is based in Pretoria, but the incumbent may be expected to travel from time to time.

About the group:

The research group strives to effectively and efficiently deliver practical, innovative, knowledge-based solutions addressing the infrastructure needs of the transport sector. The group plays a leading role in the development, application and transfer of processes and technologies for the design, construction, maintenance and management of transport infrastructure.

The group consists of a team of professionals specialising in all aspects of transport infrastructure design, construction and maintenance, including the assessment of material and pavement behaviour, and performance modelling. The senior engineers and technologists in the team have international standing and are well-known in their areas of specialisation through their contributions to the advancement of transport infrastructure engineering.

Key responsibilities:

- Provide scientific leadership to staff in the Pavement Design and Construction research group by means of an excellent grasp of the field and by ensuring quality scientific outputs and the professional development and transformation of the group's scientific capacity;
- Promote a culture of scientific excellence in terms of both quality and delivery;
- Drive the strategic vision of the Pavement Design and Construction research group;
- Contribute to the ongoing development and implementation of strategies to grow the research group;
- Assist the Impact Area Manager to construct and implement a business plan for the impact area (including strategy, goals, mission, HR, finances);
- Identify and manage research opportunities in order to secure external contracts;
- Establish, build, manage and maintain mutually beneficial and credible stakeholder relationships;
- Ensure financial sustainability of the research group, through active networking, developing and managing client relationships, understanding the client needs and aligning them with internal needs and capability;

- Conceptualise, lead and deliver on multi-disciplinary and multi-agency projects and programmes in support of pavement design and construction, decision-making and policy development;
- Draft project proposals, identify tasks and activities to facilitate execution, and allocate appropriate resources;
- Prepare reports, guidelines or other documents aimed at disseminating the results and outcomes of projects;
- Manage, motivate and develop the people in the research group and enable their career growth through creation of opportunities;
- Provide guidance to researchers and mentorship to interns and learners;
- Direct, drive and measure the performance of the people in the research group;
- Ensure that the research group is dynamic, and remains innovative, competitive and abreast of trends;
- Raise personal, team and institutional profiles through publishing original research and presenting at national and international conferences and workshops;
- Ensure the quality and delivery of projects and publications in the group by means of technical reviews and quality assurance;
- Ensure impact of the research group's work.

Qualifications, skills and experience:

- A Doctorate in Civil Engineering with a minimum of ten years' experience in at least five of the following fields related to road engineering:
 - materials design and evaluation
 - structural design
 - performance assessment and modelling
 - vehicle-pavement interaction
 - construction and maintenance
 - geotechnical engineering
 - risk and vulnerability assessment
 - forensic investigation
 - procurement/contractual models
 - infrastructure funding alternatives
 - asset management
 - sustainability science
- Must be registered as a Professional Engineer;
- Proven leadership, management skills and financial acumen;
- Track record of successful development and management of revenue streams in the field of pavement design and/or construction;
- Ability to demonstrate an in-depth understanding of the business/engineering environment in which the research group operates;
- Recognition as an expert in the road infrastructure domain or in related fields allowing the individual to contribute to integration across disciplines;
- Networking ability and proven networks within all aspects of transport infrastructure design, construction, maintenance and rehabilitation, including the assessment of materials and pavement behaviour, and performance modelling, demonstrated through participation in national or provincial committees, task teams and working groups;
- Proven contract and project management experience on medium to large-scale projects, preferably multi-disciplinary research and development projects;
- Practical knowledge of and experience in a range of research methods;
- Excellent report-writing skills;
- Track record of research outputs published in peer-reviewed journals, books or conference proceedings;

- Effective communication skills (oral, written and presentation), including excellent communication in English;
- Skills in staff motivation and performance management;
- Analytical skills with a problem-solving, solution-seeking orientation;
- Ability to work independently and as part of a team;
- Computer literacy and experience in using standard software packages; programming skills will be an advantage.

Should you meet the above requirements, please email your CV to recruitment01@csir.co.za with your name and surname, position title and reference number in the subject line, **(eg. John Smith: Job title: Reference No: 310923)**

Closing date: 25 September 2020

PLEASE NOTE THAT FEEDBACK WILL BE GIVEN TO SHORTLISTED CANDIDATES ONLY.

For more info, please contact the CSIR Recruitment Centre on **012 841 4774** or email us at Recruitment01@csir.co.za

*The CSIR is an equal opportunity employer. As such, it is committed to the Employment Equity Act of 1998. By applying for this position at the CSIR, the applicant understands, consents and agrees that the CSIR may solicit a credit and criminal report from a registered credit bureau and/or SAPS (in relation to positions that require trust and honesty and/or entail the handling of cash or finances) and may also verify the applicant's educational qualifications and employment history. **The CSIR reserves the right to remove the advertisement at any time before the stated closing date and it further reserves the right not to appoint if a suitable candidate is not identified.***