

CAREER OPPORTUNITY

The Council for Scientific and Industrial Research (CSIR) is a leading scientific and technology research organisation that research, 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.

Senior Engineer: Robotics

About the job:

The CSIR has a vacancy for a **Senior Engineer: Robotics** in the Industrial AI research group within the Centre for Robotics and Future Production, Manufacturing cluster. The incumbent will be responsible for conducting research, development, and implementation of robotic platforms, including robot software design and development, artificial intelligence (AI) algorithm implementation, computer vision and machine learning approaches, navigation, path planning and mapping. This position is based in Pretoria.

For more information about the unit, please visit: <https://www.csir.co.za/future-production-manufacturing>

Key responsibilities:

- Client interactions, business development and proposal writing;
- Generate and contribute towards science engineering & technology (SET) activity outputs e.g. reports, guidelines, system requirements, peer-reviewed publications, and technology & software packages;
- Participate in external task teams or committees in relevant domains;
- Supervise, mentor and/or develop junior staff;
- Undertake AI/Robotics-related R,D & I work. The R,D&I areas of interest for the group are:
 - Perception (Machine Vision) for robotics and QA/QC applications,
 - AI & Machine Learning,
 - Navigation,
 - Planning,
 - Mapping
 - Decision Making,
 - Integration of systems,
 - Simulation of robotic systems (Digital Twin).
- Take a leadership role in group projects including:
 - Implementation and timely delivery
 - Oversee the R,D&I life-cycle on projects,
 - Identify R,D&I output opportunities and potential stakeholders,
 - Team performance monitoring,
 - Advise team members on project direction and motivating project team members,
- Remain current in field of expertise with respect to new approaches in tools, methods or technologies.

Key qualifications, skills and experience:

- A Master's degree or Doctoral degree in engineering or computer Science in robotics, or a related field with at least seven years' experience in conducting, research, and publication record, and/or product development;
- At least seven years' of experience in the following:
 - AI/Robotics R,D&I or a related field;
 - Software development in the field of AI/Robotics or a related field;
 - Programming using C/C++ and/or Python;
- During the above years of experience there should be evidence of experience in project management, and demonstrated ability to complete a project successfully and on time;
- Experience with the Robot Operating System (ROS);
- Experience in using the Linux operating system;
- Strong quantitative skills (mathematics/statistics/computer science);
- Demonstrated skills in: analytical thinking, flexibility and adaptability, planning and organising, problem solving, verbal and written communication, team work, self-management (planning, prioritising and time management – includes the ability to work independently), systems level thinking, multi-disciplinary knowledge.

Should you meet the above requirements, please email your CV to executiverecruitment@csir.co.za with your name and surname, position title and reference number in the subject line, **(eg. John Smith: Job title: Reference No: 311781)**

Closing date: 16 November 2021

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

For more info, please email us at executiverecruitment@csir.co.za

*The CSIR is an equal opportunity employer. As such, it is committed to the employment Equity Act and will through the filling of this vacancy, give preference to candidates from designated groups in terms of the Employment Equity Act. By applying for this position at the CSIR, the applicant understands, and agrees that the CSIR may solicit a credit and criminal report from registered credit bureau and/or South African Police Services (in relation to positions that requires trust and honesty and/or entail the handling of cash or finances), and may also verify the applicant's educational qualification 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.***