

# Process Engineer Position

## Renewable membrane filtration system design & implementation in the African continent

### Project

The Process Engineer position seeks a 'can do' adventurer who will apply first class engineering skills to a major global challenge: safe water for all children. The work builds on extensive expertise of the team in Australia, Scotland and Africa (Ghana, Tanzania). Renewable energy powered membrane filtration systems will be implemented on a 4WD vehicle for field trips in Europe and Northern Africa. Collaboration with Tanzania, Namibia, South Africa, Gambia, Burkina Faso, Ghana and other African countries will be the basis for technology implementation with extensive opportunities to travel and organize field work.

The aim of this project is to design robust decentralized water treatment systems, adapt the technology to often harsh and remote environments and ascertain successful operation and maintenance strategies. Laboratory research in the team as well as engagement of interdisciplinary stakeholders for long term capacity building and technology transfer accompanies technical developments.

The project is developed with the following objectives, i) design and set-up of a vehicle to host different RE-membrane systems for field missions, ii) develop a suitable operation and maintenance protocol, iii) organize field trials in Africa to evaluate treatment needs and seek further funding for large scale implementation.

This research is of applied nature and requires close interaction with international collaborators, local communities, the IAMT research team, collaborators within KIT as well as students.

At process engineer level the selection and procurement of equipment, interaction with workshops, system design and installation, trouble shooting and logistics of international field work organization are key responsibilities.



### Qualifications

You will hold a **bachelor/masters/PhD degree in Chemical, Process, Environmental Engineering**, or equivalent. You are a naturally curious person who is eager to learn more and has a strong interest in water treatment, international development and independent travel. Experience with membrane filtration and desalination systems (of any scale) is a definite advantage, as well as being comfortable in specifying system components and sound experimental problem solving skills, water analysis experience – as well as good common sense and grounded pragmatism. Excellent English language proficiency and demonstrated cultural awareness are essential, basic German language skills of definite advantage. Willingness to travel to Africa for project meetings and fieldwork as well as a valid driver's licence are required.

### KIT

KIT is one of the biggest research institutions worldwide and has access to state-of-the-art research facilities resulting from the merger of the National Research Centre of the Helmholtz Association and the former Technical University of Karlsruhe. This project is hosted by the Institute for Advanced Membrane Technology (IAMT).

### Position

TvL E10 to 13 (qualification dependent) 100% for 3 years

### Contact

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### Applications

Please send applications with cover letter addressing position requirements, CV, publication list and your contribution to the publication (if relevant), academic transcripts, degree certificates, contact details for three references and a motivation letter addressing the position qualifications to the above contact(s).

**Closing date: 31 March 2021**