Eskom Specialisation Centre in Combustion Engineering at University of the Witwatersrand

EPPEI Eskom Power Plant Engineering Institute

About EPPEI

The Eskom Power Plant Engineering Institute (EPPEI) provides world-class training and research to improve the power plant industry.There are 8 Specialisation Centres at 6 South African partner universities.

EPPEI fosters a dynamic relationship between industry, academia, including universities and universities of technology and the postgraduate student to ensure that there is a balance between applied research that is relevant to industry and research that has academic merit.

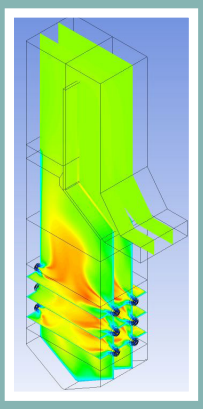
EPPEI encourages the involvement of industry partners in research and innovation. Industrial partners interested in getting involved should contact the EPPEI consortium via any of the consortium partner universities or the consortium management team.

www.eppei.co.za

"Local environmental standards require implementation of NOx reduction technology in all existing and new-build plants."

About the Eskom Specialisation Centre in Combustion Engineering

The specialization centre is housed in the School of Mechanical, Industrial and Aeronautical Engineering at the University of the Witwatersrand.



The centre has established itself as the main centre for coal combustion engineering in South Africa with several key partnerships involving local and international organisations.

The centre specializes in simulation and analysis of combustion in boilers and the performance of boiler auxiliary systems. It is also the lead university for the EPPEI performance and testing inter university program.

"The Specialisation Centre in Combustion Engineering strives to improve understanding of the impact of local coals and their effects on coal-fired power plant"

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Study opportunities

Postgraduate Diploma in Mechanical Engineering (PGDip)

The PGDip currently offered at Wits is related to mechanical engineering in general. A power plant engineering PGDip is currently in development and will be offered at Wits in 2019.

Research Masters

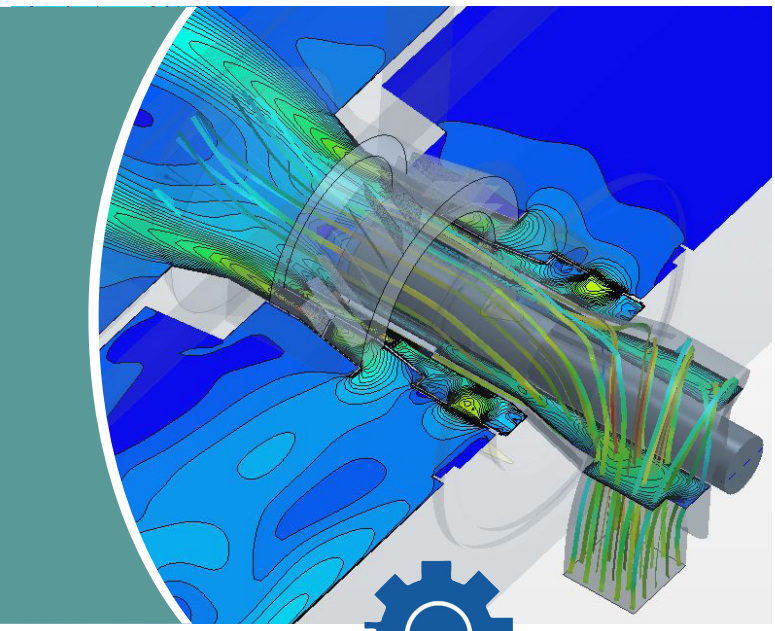
Research Master degrees in Engineering are usually two-years full-time, with an option of part time study. Students will typically focus on pre-determined projects that are directly related to the Eskom business.

50/50 Coursework Masters

A masters program that consists of 50 % coursework and 50% research project is also available. The coursework is directed at the mechanical and industrial engineering fields whilst the project will be Eskom related.

Doctoral Studies

PhD degrees can be obtained in a variety of advanced studies in fields of combustion enigineering.



Career opportunities

Coal fired power stations are the backbone of the South African power generation grid. The combustion engineering field spans fundamental science, systems engineering and design aspects related to boilers and its auxiliary systems. Our focus is to ensure clean, safe, reliable, efficient and sustainable operation of current and future plants.

The specific challenges revolve around the firing of coal, oil or gas and its impact on the boiler systems. Ensuring stable and efficient combustion in boilers at reduced wear rates and pollutant production lies at the heart of our research. This is supported by research in performance testing and fuel characterization.

How to apply

The minimum requirements for admission are:

- An Engineering or BTech degree (BSc or BEng);
- Must be interested in obtaining an MSc degree or MTech or MEng in Combustion Engineering either at a University or a University of Technology (UoT);
- An overall average final year mark of 60% and above.

Candidates need to attend a short preparatory program at the Eskom Academy of Learning prior to registration at a University or UoT. Candidates will be allowed to register at the University or UoT after successful completion of the screening exams.

In preparation for the application prospective students are required to submit the following documentation:

- Certified copies of ID, degree and academic record;
- Short description of your responsibilities and main outputs over the last six months;
- Short resume and motivation for admission into the programme;
- A single colour passport size photo;
- A research topic title and description and possible industrial mentor.

Please use the contact details below for more information.

Contact details

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www.wits.ac.za/mecheng