



UNIVERSITY
OF
JOHANNESBURG

**Post-Doctoral Research Position in an interdisciplinary project :
Engineering-Physics-Medicine**

The Mechanical Engineering Science Department of the UNIVERSITY OF JOHANNESBURG seeks to appoint a Post-Doctoral Research Fellow at its Auckland Park Kingsway Campus in the joint interdisciplinary fields of Engineering, Physics and Medicine. The research involves Continuum Fluid Dynamics (CFD) modelling of droplet- and aerosol-based transmission for COVID-19 and Tuberculosis in Public and Clinical spaces. The study includes modelling the time dependent infectiousness of droplets and surface films in the local environmental conditions. Various engineered medical interventions are evaluated and optimized in each context. The geometries, materials and dynamics of the spaces are introduced into the CFD context starting from laser generated point clouds specific to each space, along with other measurements. The successful applicant will join a large team with combined experience in several of the fields required.

The duration of the Post Doc funding is up to three years but renewable annually based on mutual agreement. There is an opportunity to be involved in teaching and student supervision for candidates who would like to develop this aspect of their CV.

Applications are welcomed.

Please send your CV and two reference letters to the address below

Requirements: A completed PhD degree in Engineering or Physics. The candidates should have coding experience and in addition, experience with ANSYS Fluent and/or OpenFOAM is an advantage. The review of applications will begin immediately and continue until the position is filled.

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Web sites <http://www.uj.ac.za> , <https://panip.febe.uj.ac.za>