

Invitation to apply for the 2022 SAINTS@tlabs Prestige Masters and Doctoral Scholarships

iThemba LABS (www.tlabs.ac.za) is a national facility of the National Research Foundation (NRF) with its main campus close to Somerset West, Western Cape and its satellite campus close to the University of the Witwatersrand.

The Southern African Institute for Nuclear Technology and Sciences (SAINTS) is a division of iThemba LABS focusing on the provision of education, training and professional development for students and staff linked in the first instance to iThemba LABS.

iThemba LABS uses a variety of particle accelerators to provide accelerated ions and associated detectors systems for use by researchers and students to conduct research in the fields of basic and applied nuclear physics; materials science/nanoscience; radiobiology (radiation effects on biological materials); and radiochemistry.

iThemba LABS is in the process of a major upgrade to its accelerators. In particular it is in the process of developing the SAIF (South African Isotope Facility) which will be based on a new 70 MeV cyclotron which is about to be delivered and expected to be commissioned in 2022. Because of this development there are also research opportunities for post-graduate students in Electrical/Electronic/Mechatronic Engineering and Computer science.

With this call the SAINTS is inviting academically outstanding students to apply for full-cost Masters and Doctoral scholarships (in fields of Science and Engineering) to do their research full-time in one of the following fields:

- *basic nuclear physics (study of nuclear reactions, shapes and more),*
- *applied nuclear physics (study of radiation effects on matter, environmental radiation, accelerator mass spectrometry and more),*
- *materials science (materials characterization),*
- *nanoscience (new materials development),*
- *radiobiology (studying effects of radiation on the body),*
- *radiochemistry (development of novel radioisotopes for use in nuclear medicine and more), and*
- *advanced control systems for accelerator components and detector instrumentation (Engineering, Computer science).*

A list of available projects and associated research supervisors at iThemba LAB, for 2022, is available at the following link:

<https://tinyurl.com/share-sps2022-projects>

Successful students will also be sponsored to attend at least one international conference and/or participate in an international research visit during their studies.

Requirements:

- an above-average academic record, especially for the degree before the one planned to be pursued in 2022,
- must be a South African citizen,
- must register at a South African University for full-time studies from 2022, and
- must be supervised/co-supervised by a staff member at iThemba LABS for studies commencing in 2022.

To apply:

E-mail the following documents *in one PDF file*

- your up-to-date CV;
- copy of your full academic record;
- copies of all your degree/diploma certificates to date;
- letter in which you indicate your selected research project, your motivation for selecting this project, your choice of institution to register for your studies, and your career goals;
- copy of your ID document;
- two letters of support (one from your current or most recent lecturer/supervisor) ;

and the following as *separate PDF file attachments:*

- copies of any research publications/reports you have authored or co-authored, and
- copies of your dissertation (MSc) or mini-dissertation (BSc (Hons) / BSc (Eng)).

to saintsadmin@tlabs.ac.za by no later than **31 December 2021**

For further information contact:

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