

AFRICA: Plan for 15 NextEinstein institutes

Wagdy Sawahel

30 August 2009

Issue: 0036



An innovative **NextEinstein Initiative**, which provides postgraduate training in maths and computing skills to super-bright African graduates, is spreading its wings. The first African Institute for Mathematical Sciences in South Africa is to be joined in 2011 by a new AIMS in Senegal, followed by institutes in Ethiopia and Ghana. Within a decade the AIMS NextEinstein Initiative plans to launch 15 institutes across Africa.

Mathematics underpins most of modern life - information and communication technology, biotechnology, nanotechnology, weather forecasting and disaster prediction, finance, demographics and planning - and lies at the core of modern business, technology and the 21st century global economy.

The non-profit, donor-funded NextEinstein Initiative seeks to educate Africa's brightest graduates in mathematical problem-solving and computing skills. The goal is to empower them to innovate in science, technology, industry and government to help meet Africa's urgent needs. It hopes to discover an 'African Einstein' within the next decade.

AIMS-Senegal will be funded by AIMS-NEI together with the Association for the Scientific Promotion of Africa created by French theoretical physicist Vincent Rivasseau, co-founder of the AIMS-Senegal project.

It will train Africans in mathematical sciences at relatively low cost, offering postgraduate mathematics diploma, masters and PhD courses in French and English, and will help students work in situ towards the development of the continent.

"AIMS-Senegal will help in building a strong indigenous higher education capacity as well as offering excellent mathematical and scientific education that will make Africa able to access the full power of science and technology," Magdi Tawfik Abdelhamid, a researcher at Cairo's National Research Centre, told *University World News*.

By working to enhance the educational and research environment in Africa, through teaching excellent courses which feed into African educational and research initiatives, AIMS-Senegal would also help counter the brain drain - more than 90% of African mathematicians who obtain PhDs outside Africa do not return home, Abdelhamid said.

NEI builds on the experience and track record of AIMS in Cape Town, which was established in 2003 and provides a successful model ready to be replicated across Africa.

The South African AIMS is a collaborative project of the universities of Cambridge, Cape Town, Oxford, Paris Sud XI, Stellenbosch and the Western Cape. It offers a postgraduate diploma in mathematical sciences, teaching widely applicable mathematics and computing skills and providing exposure to areas of importance in Africa.

Demand for AIMS in Cape Town is high - more than six applications are received for every place - and it has proved highly successful, accepting students from more than 30 countries, attracting dozens of top lecturers from around the world, placing 96% of last year's class in strong masters or PhD programmes and building a 210-strong alumni network.

With partners across Africa, AIMS has also developed an African Mathematical Institutes Network to encourage collaboration in training outstanding graduates and to connect mathematicians and scientists in Africa to each other and to the world.

AMI-Net has won recognition from the New Partnership for Africa's Development and the African Union as one of five flagship programmes in Africa's Consolidated Plan of Action for Science and Technology. The plan is to support the growth of AMI-Net nodes into AIMS centres.

AIMS-NEI is designed to draw brilliant young Africans into maths and science at a high level, giving them the knowledge, skills and self-confidence needed to contribute to Africa's future self-sufficiency. By creating a network of centres and partnerships, NextEinstein will also develop opportunities for Africans to study, teach and work in Africa.

Groundwork has already been laid in several countries to establish 15 AIMS centres across Africa - in Benin, Botswana, Egypt, Ethiopia, Ghana, Madagascar, Malawi, Morocco, Mozambique, Rwanda, Senegal, South Africa, Sudan, Tanzania and Uganda. A connected web of AIMS Centres will also be created.