AIMS

African Institute for Mathematical Sciences
NEXT EINSTEIN INITIATIVE

WE ARE CONTRIBUTING TO AFRICA'S SOCIO-ECONOMIC TRANSFORMATION THROUGH:
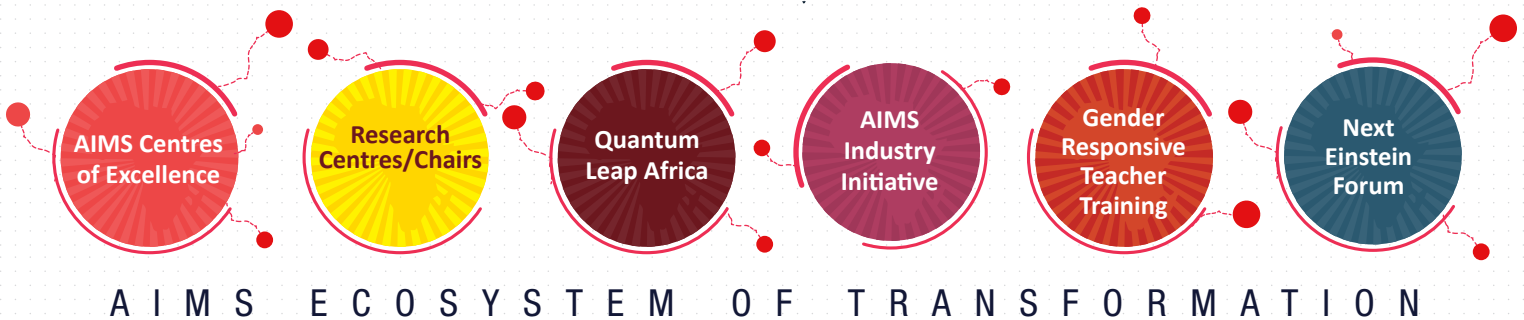
Innovative scientific training

Technical advances & discoveries

Public engagement for the continent's scientific emergence

HOW ARE WE DOING THIS?

- AIMS Centres of Excellence
- Research Centres/Chairs
- Quantum Leap Africa
- AIMS Industry Initiative
- Gender Responsive Teacher Training
- Next Einstein Forum

A N E C O S Y S T E M O F T R A N S F O R M A T I O N

PROFILE OF AIMS ALUMNI

OVER 2000 ALUMNI FROM 43 COUNTRIES SINCE 2003

35% PURSUING FURTHER STUDIES

PhDs

OVER 70% OF OUR ALUMNI REMAIN ON THE CONTINENT

FIVE FACTS ABOUT AIMS GHANA
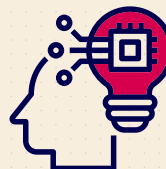
3RD CENTRE, CREATED IN 2012

358 ~~DENTS~~ GRADUATED SINCE
106 SO FAR (33% BEING WOMEN)

FULL SCHOLARSHIPS FOR QUALIFIED STUDENTS

UNESCO

UNESCO CATEGORY 2
CENTRE OF EXCELLENCE IN MATHEMATICS & ALLIED SCIENCES

SECOND CENTRE TO HOST THE AFRICAN MASTER'S IN MACHINE INTELLIGENCE (AMMI)

A GLANCE AT AIMS GHANA PROGRAMS

MSc in Mathematical Sciences

AIMS offers an intensive structured Master's degree in mathematical sciences entailing 10 months of course work, research and the oral defence. The program provides a strong grounding in end-to-end skills, from problem formulation, estimation, prioritization, and generally applicable mathematical and computing methods in big data and computer security, to clear and concise scientific report writing. The aim is to equip students with the necessary tools and confidence for policy analysis and decisionmaking. All AIMS students benefit from full scholarships, are selected through a rigorous application process and must have studied mathematics or related sciences for at least four years (4-year BSc or Master's I).

African Masters in Machine Intelligence

In September 2018, AIMS launched the African Masters in Machine Intelligence (AMMI) in Rwanda, with the support of Facebook and Google as well as the global AI community. The goal of AMMI is to bring the best of AI education in Africa and contribute to building a healthy ecosystem of AI practitioners committed to making a positive impact on our societies. A novel fully funded one-year intensive graduate program, AMMI provides brilliant young Africans with state-of-the-art training in machine learning and its applications. The AMMI program will prepare well rounded machine intelligence researchers who will respond to the present and future needs of Africa and the world. AMMI was launched at AIMS Ghana in 2019.

Research Centre

Launched in 2014, the German Research Chair, with the support of the German Ministry of Education and Research, the Alexander von Humboldt Foundation and DAAD, leads research activities with doctorate and postdoctorate researchers, in collaboration with universities in Ghana and abroad. Through national and international collaborations, research stays and exchange visits, the Research Centre is promoting the participation of top international researchers and institutions keen to work with African academics and students on cutting edge projects. Prof Olivier Menoukeu Pamen, chair holder, is currently supervising one Post-doc, five PhD and three MPhil researchers.

Master of Mathematical Sciences for Teachers

The MMST programme is part of AIMS Ghana's postgraduate training modules designed to equip mathematics teachers at the secondary level with 21st century mathematical skills towards improved content and methodology in teaching mathematics at second cycle institutions. It is funded by the Government of Ghana under the auspices of the UNESCO Category 2 arrangement. The objective is to build capacity for African initiatives in science education, research and technology.

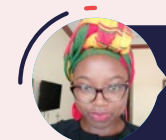## Girls in Mathematical Sciences Programme

The GMSP is an exciting and challenging 9 – month programme created for bright, curious and creative female high school students to unlock their potential in the mathematical sciences. The goal is to mentor participants to pursue STEM careers at the highest level in research, training and industry. The program is also designed to create a special class of students who will lead cutting edge research and innovation in the next few years.

ALUMNI SPOTLIGHT

Dr. Perpetual Saah A.
(AIMS Ghana, 2012/13) – **Ghana**

Perpetual graduated from the University for Development Studies, Ghana, in 2011 with a Bachelor's degree in financial mathematics, before gaining admission into AIMS Ghana as part of the pioneer cohort. With the support of AIMS, she was awarded a bursary for further studies at Kwame Nkrumah University of Science and Technology, where she obtained a PhD in applied mathematics. Perpetual is a lecturer at the Department of Statistics and Actuarial Science at the University of Ghana.

Andree Mentho Nenkam
AIMS Ghana, (2013/2014) – **Cameroon**

After completing her studies at AIMS Ghana, Andree did an internship in Kenya on statistical modelling using R, working with the African MathInitiative (AMI). Now Scientific Officer at the International Crop Research Institute for the Semi-Arid Tropics, Bamako, Mali, Andree uses crop modelling and climate analysis to advise farmers on strategies to mitigate climate change, seasonal risks and increase crop yields. Her research assesses the effect of climate change on agriculture and the impact of new approaches to improve farmers' resilience to climate variability.

Ines Birimahire
(AIMS Ghana, 2017/18) – **Rwanda**

With a BSc in applied mathematics, Ines worked at CARLCARE Ltd, Rwanda as a material supervisor for almost three years, before applying to AIMS Ghana. Currently enrolled at AIMS Rwanda for the African Master's of Machine Intelligence, she is honing her interests in Deep Natural Language Processing. She aspires to do a PhD in machine translation, focusing on languages with a limited amount of parallel data, to contribute to global communication, which is the essence of human interaction.

Seth Afari-Boateng
(AIMS Ghana, 2017/18) – **Ghana**

Before joining AIMS, Seth pursued a Bachelors' degree in mathematics with statistics at the Presbyterian University College, Abetifi, Ghana, subsequently working with NCR Ghana Limited and PWC Ghana. His dream of pursuing higher education in mathematics led him to apply for a scholarship at AIMS Ghana. After graduating, he was selected to participate in the AIMS-ESMT Industry Immersion Program, culminating in a top-up certificate in business management. The program facilitated his internship with ThyssenKrupp, a German company where he currently works as Country Office and Spare Parts Administrator.

WE BELIEVE THE NEXT EINSTEIN WILL BE AFRICAN!