



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 I M S 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
2200
ALUMNI
FROM 43 COUNTRIES SINCE 2003

OVER
70%

OF OUR ALUMNI REMAIN
ON THE CONTINENT

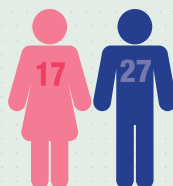


FIVE FACTS ABOUT AIMS RWANDA



**5TH CENTRE,
CREATED IN 2016**

THE CURRENT NUMBER OF STUDENTS IN
2020 -2021 COHORT AIMS RWANDA IS
44 (17 FEMALE , 27 MALE)



**FULL SCHOLARSHIPS FOR
QUALIFIED STUDENTS**



**AIMS RWANDA HAS TRAINED
288 STUDENTS, WITH 108
OF THEM BEING WOMEN**



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

In Partnership with



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AIMS

African Institute for
Mathematical Sciences
RWANDA

A GLANCE AT AIMS RWANDA PROGRAMS



Structured Master's Program

The AIMS Structured Master's Program runs over three semesters. The requisite skills phase of the AIMS course builds a standard core set of problem-solving skills: estimation, computation, approximation, modelling, data analysis and statistics. The elective review phase allows students to apply these skills in some of the most exciting areas of science.

During the final phase of the AIMS course students do a research project and write a scientific report under the supervision of an expert researcher on a topic of their choice. Research initiated in these projects often develops into further postgraduate research work after AIMS



Climate science Stream

In line with AIMS growing response to climate change, AIMS Rwanda offers a specialized master's in mathematical sciences with focus on climate science, preparing students to tackle climate change problems.



Teacher Training Program (TTP)

The AIMS Teacher Training Program (TTP) started in Rwanda in 2018 with a goal of improving learning outcomes in mathematics and sciences for secondary school students.

TTP operates in 14 districts in Rwanda and has managed to re-invent smart classrooms in these districts..

Through training workshops and high quality smart classrooms, TTP has managed to empower over 4000 teachers since inception and recently launched the very first Teacher Awards in Rwanda, awarding over 50 teachers.



Co-operative Education Program

This program targets students with a background in mathematics or related sciences, strong leadership skills, with an engagement to invest in their communities. The fully funded Co-op program is implemented with the support of the Mastercard Foundation, Global Affairs Canada and public and private sector industry partners.

ALUMNI SPOTLIGHT



Ola Bdawy Mohamed
(AIMS Rwanda, 2018/19) – **Sudan**

Ola recently completed an internship at GERAD, Montreal under the framework of the AIMS-IVADO partnership. Working on "Planning in Home Health Structure using Reinforcement Learning", she used reinforcement learning to develop a novel framework to solve the patient-caregiver matching problem, by increasing the general well-being of patients and making significant progress towards integrating HHC in health care systems. Ola came to AIMS with an MSc in information security and a BSc in mathematics and computer science from the University of Khartoum.



Bandiang Massoua Armand
(AIMS Rwanda, 2017/18) – **Chad**

A passionate data scientist, Armand completed his BSc in computer science, with specialization in architectures and network from the University of Ngaoundéré Cameroon. After pursuing an MSc in science and technology, specializing in computer engineering from the same university, he joined AIMS Rwanda. As a data analyst and application developer intern at Ecobank Rwanda, Armand worked on bank products performance analysis and the development of a system to manage finance department reports. He plans to pursue further studies in machine learning and work as a data scientist in industry.



Massawe Sylivera Justine
(AIMS Rwanda, 2017/18) – **Tanzania**

Sylivera pursued a degree in actuarial sciences at the University of Dar es Salaam, graduating with a first-class degree which set her up for admission into AIMS in 2017. She interned at the Rwanda Revenue Authority (RRA) on a project dubbed "Fraud detection using Machine Learning techniques", solving problems for the institute and gaining hands-on experience in Statistics and Data Science. Now back in Dar es Salaam, Sylivera is confident that she can join elite corporate firms such as KPMG and PWC, but she intends to juggle career aspirations with her other passion – supporting underprivileged girls.



Sara Ebrahim
(AIMS Rwanda, 2018/19) – **Egypt**

Recently on internship at the Montreal Institute for Learning Algorithms (MILA), Sara's research focuses on "Breast cancer detection from mammograms", to investigate how can we leverage the usage of trained models on large dataset of mammograms with few dataset with two concepts: transfer learning and meta learning in deep learning literature. Some of the tools used for her research are deep learning, transfer learning, meta learning, convolution neural network and python among others. Now undergoing a training program at Facebook New York, Sara came to AIMS with an MSc in computer and information sciences from Ain Shams University, Egypt.

