



TRAINING THE NEXT GENERATION OF AFRICAN SCIENTISTS



Contents





CENTRE PRESIDENT'S WELCOME MESSAGE Prof. Dr.Sam Yala

Centre President



ithout any iota of doubt, the world has been transformed in the last two years. A lot of ways of getting things done are now in the past and almost obsolete. It is said that the world's advancement

in two years was worth ten years of technological advancement and we human beings have learnt to adopt and adapt to the new normal. We have become students of the new normal and are still navigating the past two years unlearning, learning and re-learning the old and new, past, present and future.

The covid and its attendant lockdown brought in its wake, physical distancing amongst students and the tutors and this necessitated the adoption of our own hybrid format which we were able to tailor to the peculiarity of our bright and engaging students. The physical distancing was challenging but it was surmounted.

African Institute of Mathematical Sciences (AIMS) Rwanda, like all other centres, has also transformed in the past two years in more ways than we would have envisioned and we (institute, academic colleagues, staff, students) are ready for it.

This compact annual report 2021-2022 encompasses African Institute of Mathematical Sciences (AIMS Rwanda)'s numerous milestones in the past twelve months.

I look forward to keeping you informed on our progress in the coming year.

All the best and kind regards,

Prof. Dr. Sam Yala **Centre President**





ABOUT AIMS RWANDA

IMS Rwanda was established on August 27, 2016 with the support of the Government of Rwanda. AIMS Rwanda is the fifth Centre of Excellence to be created under the AIMS Global Network (AIMS Next Einstein Initiative). Since its inception, AIMS Rwanda has graduated over 350 students from 30 African countries, 37% of whom are women. AIMS Rwanda was the first centre in the network to host African Master's in Machine Intelligence (AMMI).

Furthermore, the AIMS model is unique in its Pan-African focus, broad curriculum, independent critical thinking, and inclusion of modern computational techniques and research components. AIMS identifies top African graduates and provides them with a world-class education in mathematical sciences, enabling them to pursue careers in research, industry and civil society. Students benefit from full bursary support, continuous access to computing, internet and electricity, close interaction with full-time tutors and visiting professors, as well as bilingual education.

The 2021-2022 cohort is the largest cohort we have hosted, with 60 students graduating from 18 different African countries, of whom 38% are women.

The centre offers a Master's in mathematical sciences through:



A Structured ten-month Programme with Steams in **Data Science or Climate Science.**



An eighteen-month **Co-operative** (**Co-op**) education programme with a direct link to industry through work placements.

African Institute for Mathematical Sciences (AIMS) has a focus Call to Action to:

Invest in STEM education for the advancement of development in Africa.

Increase collaboration between the public and private sectors to prioritise STEM (Science, Technology, Engineering and Mathematics) education in Africa.

Encourage policymakers to push the Agenda of STEM education in Africa for the transformation of and sustainable growth of the continent, especially as it pertains to increasing the number of women in the STEM fields.

Get Africa's most talented students to pursue an education in mathematical sciences to innovate and further propel Africa's future.

Increase partnership with industry to fill the gap in STEM (Science, Technology, Engineering and Mathematics), which would increase productivity and provide critical skills that are indispensable as Africa embarks on its industrial revolution.

Programmes:



Structured Master's Programme, in Mathematical Sciences



Teachers Training Programme



Mastercard Foundation **Scholars Programme**





AIMS Rwanda

average **24years old, 18 African countries, 90% students with BA 10% with Masters**, Field of study -38% Mathematics, 17% Physics.

Lecturers 17 countries, 18 universities

Women

Students



500 attendees to Seminars, Workshops, and Scientific events.

5 Memorandum of Understandings signed More than 5 Joint activities with local and international universities.



Research



AIMS Research chair in Climate Science ranked #1 (AD Scientific Index) among 200 top scientists in Rwanda including 10 AIMS affiliates.



Development of industries partnership on energy sustainability



Establishment of first research group in <u>Discrete Math</u>ematics

2 lead

authors from

AIMS Rwanda

- IPCC Report

Teacher Training Programme



10 publications by Quantum Leap Africa (QLA) researchers in collaboration with other authors



276,000+ students directly reached through key outreach programs.



4,600+ in-service teachers trained.

470,000+ students indirectly reached through trained teachers.

Second time Rwanda has participated in **The Pan-African Mathematics Olympiad** and first time at the International Mathematics Olympiads.

AIMS Rwanda Annual Repor-



INDUSTRY TRAININGS

ith the growing technological advancements, including the ongoing digital revolution, the world is witnessing an emergence of smart and more sustainable communities and societies. This has significantly transformed not only human behavior, but its impact on society, including the business ecosystem. Using technology has become a day-to-day business requirement. It is, however, important for business leaders to acknowledge that access to technology remains a multifaceted problem across various sectors of our society. While affordability is one of the key factors, for many organizations, lack of capacity, relevance to specific business drivers makes up a determinant factor in adopting new technologies. Boost You

With this background, the African Institute for Mathematical Sciences (AIMS) continues to provide leadership in driving capacity building efforts of various public and private sector organizations in Africa. Building on a broader spectrum of its industry linkages across various business sectors, AIMS takes to the next level its mandate to support capacity building of its partners in emerging technologies.

Ensuring access and affordability, AIMS has leveraged its partnership with development agencies to provide mechanisms for sponsorship. Several partnerships are identified to ensure that the proposed training programs is cost-effective and accessible.



AIMS acknowledges that capacity development needs and priorities of organizations are dynamic. It becomes important to establish a mechanism for gathering regular inputs from partners to update and validate demand parameters.

The first execution of the International Software Testing Qualification Board (ISTQB) training offered by International Software Quality Institute (ISQI) in Rwanda to local private and public sector partner employees took place in late 2021. With the support from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The training ran over 5 days, with a proctored exam for a cohort of 20, there have been some key take aways and learnings. AIMS would like to share and explore in the future planning and execution of such certifications and or similar trainings for the local market.

Class Stats at a Glance



Trainee Institutions



11

RESEARCH AND IMPACT



QUANTUM LEAP AFRICA

FOUNDATIONAL METHODS IN DATA SCIENCE' TRAINING SCHOOL

The African Institute for Mathematical Sciences Rwanda (AIMS Rwanda) received a plethora of applications from prospective students for the Graduate Training School "Foundational Methods in Data Science" which took place from Sunday, March 6, 2022 to Saturday, April 2, 2022 at AIMS Rwanda in Kigali, Rwanda.

The Foundational Methods in Data Science training was organised with focus on six core courses with additional training components. This training school brought together in one location renowned international and national academics, researchers and graduate students, working on topics relevant to modern data sciences, including machine learning and artificial intelligence, their mathematical theories and numerical implementations, using methods from statistics, optimisation, functional analysis, and control and dynamical systems.

The training school also provided a platform for researchers and data scientists to interact in an interdisciplinary and transdisciplinary environment which is one of the hallmarks of AIMS Rwanda.



PUBLICATIONS BY QLA RESEARCHERS

Title of article	Author(s)	Journal	Impact factor of the journal
Energy Source Allocation Decision- Making in Textile Industry: A Novel Symmetric and Asymmetric Spherical Fuzzy Linear Optimization Approach	Sajida Kousar Urooj Shafqat Nasreen Kausar Dragan Pamucar Yaé Ulrich Gaba (QLA)	Mathematical problems in engineering	1.305
A Highly Efficient Computer Method for Solving Polynomial Equations Appearing in Engineering Problems	Naila Rafiq Mudassir Shams Nazir Ahmad Mir Yaé Ulrich Gaba (QLA)	Mathematical problems in engineering	1.305
Computer-Based Fuzzy Numerical Method for Solving Engineering and Real-World Applications	Naila Rafiq Naveed Yaqoob Nasreen Kausar Mudassir Shams Nazir Ahmad Mir Yaé Ulrich Gaba (QLA) Naveed Khan2	Mathematical problems in engineering	1.305
Use of Intuitionistic Fuzzy Numbers in Survey Sampling Analysis with Application in Electronic Data Interchange	Farah Rasheed Sajida Kousar Javid Shabbir Nasreen Kausar Dragan Pamucar Yaé Ulrich Gaba	Complexity	2.833
Consensus Based Sampling	"J. A. Carrillo Franca Hoffmann (QLA) A. M. Stuart U. Vaes"	Submitted (Can be accessed in Cornell University)	
Model-Free Data-Driven Inference (preprint)	Sergio Conti Franca Hoffmann (QLA) Michael Ortiz	Submitted (Can be accessed in Cornell University)	



Title of article	Author(s)	Journal	Impact factor of the journal
Spectral analysis of weighted Laplacians arising in data clustering	FrancaHoffmann (QLA) BamdadHosseini Assad A.Oberaia Andrew M.Stuart	Applied and Computational Harmonic Analysis	3.055
Semidual Kitaev lattice model and tensor network representation	Florian Girelli, Prince K. Osei (QLA) Abdulmajid Osumanu (QLA)	Journal of High Energy Physics	5.81
Electromagnetic duality and central charge from first order formulation	Marc Geiller Puttarak Jai-akson Abdulmajid Osumanu (QLA) Daniele Pranzetti	Cornell University	
Computing the Energy and Estrada Index of Different Molecular Structures	Zeeshan Saleem Mufti Rukhshanda Anjum Qin Xin Fairouz Tchier Iram Anwar-ul-Haq Yaé Ulrich Gaba (QLA)	Journal of Chemistry	2.506







The goal of the workshop was to bring together leading academics and industry representatives, providing a platform for an exchange of expertise, ideas, and best practices. This workshop was put together in sync with the training school Foundational Methods in Data Science which was held earlier on in 2022 at AIMS Rwanda. The workshop "Theory To Practise (T2P)" was a workshop dedicated to presenting emerging theories, algorithms, and methods for solving problems related to data science. Innovative data science topics relevant to solving business, engineering, and societal problems from the lens of artificial intelligence, data mining, and machine learning were discussed.



IGA CODING PYTHON PROGRAMMING CAMP

IGA Coding Python Programme Camp has been specifically designed to expose secondary school students to what has become the necessary skillsets for the 21st century competitive world. The first edition was a threeday Python programming camp dedicated to introducing elementary concepts of algorithms and programming using Python. The IGA Coding Python Programme camp featured high school students with some minimal background knowledge in mathematics, physics and computer science. The IGA Coding Python Programme Camp was organised by Quantum Leap Africa with the support of the African Institute for Mathematical Sciences Rwanda (AIMS-Rwanda) and Carnegie Corporation of New York. The first edition had thirty students (11 males and 19 females) and they all hailed from 4 schools namely; GS Ruhanga, GS Kicukiro, King David Academy and Fawe Girls School.

There were live discussions conducted via QLA's dedicated Slack channel. The IGA Coding Python Programme Camp was held from April 30 to May 2, 2022.



TRAINING SCHOOL IN CLIMATE CHANGE SCIENCE

This workshop which took place from March 7th to March 12th, 2022 focused on impacting data science through a data science course, impacting research skills and highlighting the entrepreneurship development opportunities to the participants.

Seminar with Dr. Jan Hazla

This seminar was held at University of Rwanda for students and the University of Rwanda community. The seminar was about channel coding of binary linear codes and Reed-Muller codes.

Research Outreach program: Fostering for girl inclusion in STEM field)

The number of women making up the workforce in science, technology, engineering and math (STEM) is still low. AIMS is tackling this issue through its various programs and initiatives. One of such AIMS initiatives is an outreach activity for young girls.

The objective of the outreach activity for young girls was to promote STEM by providing a platform or opportunity for young girls to learn about the importance of STEM and possible STEM careers. To reach the girls, four schools were randomly selected from two districts; Muhanga and Rwamagana successfully reaching over 150 school girls during the outreach activity.









Mathematics Methods for Engineering Problems Workshop by Dr. Abebe Geletu



Mathematics is undoubtedly one of the driving forces behind modern technological and scientific advances. All modern engineering sciences are directly or indirectly forced to use mathematical concepts and methods. Mathematics and technology strengthen each other symbiotically. Previously unsolved technical problems often initiate the establishment of new branches of mathematics, which lead to a new body of mathematical knowledge.

"Mathematical Methods for Engineering Problems" a one-day hybrid workshop at AIMS Rwanda, was held on the 15th of February 2022. The workshop was organized by Dr. rer. Nat. habil. Abebe Geletu W. Selassie, German Research Chair at AIMS Rwanda with the objective to;

- Demonstrate to the student, the relevance of their academic training to solving real problems,
- Help the student gain confidence in developing and implementing novel mathematical methods and adaptively using cutting-edge technologies to address impending development and sustainability issues in Africa
- Bring the industry and the academic community together for cooperative research and development work in a multidisciplinary framework
- Initiate and forge cooperative research and development work with various

government agencies and service companies to emphasize that the ultimate goals of societal investment (in terms of financial, material and human resources) in education and training are to address developmental and social problems, ensure sustainability, provide equitable services, and improve living conditions and social prosperity to ensure security and social stability etc.

For Africa to catch up with the rest of the world, it must start educating and empowering the new generation and investing in training its human capital in modern technologies. It should be noted that the recent widespread adoption of mobile communications, mobile banking and money transactions has triggered a modernization domino effect in almost all of African everyday life. Such adaptive and localized deployment of cutting-edge technologies must continue to permeate public services, address sustainability issues, contribute to the systematization of the agrifood supply chain, modernize industrial manufacturing, etc. Addressing development issues, solving sustainability issues, and scientific and technological advancements are only achievable through education conducted with a multidisciplinary problem-solving approach. The overall aim of the workshop is therefore to initiate the application of mathematical methods to technical problems through collaboration between academia, industry, government agencies and public service providers.

Science Day

As part of the World Science Day celebrations, we hosted an Open day at the AIMS Rwanda Centre to encourage engaging the public with mathematical sciences, conversation on cutting-edge scientific research issues, Fun games, Trivia, and fireside conversation with our Masters' students to counter the biases against STEM subjects and show how maths can actually be applied in real life situations.

Research and Services in Climate Sciences

The research team is composed of one lead, i.e. the AIMS-Canada Research Chair, 4 postdocs, 4 PhD students, 1 women fellow undertaking PhD studies, 4 research masters, 1 visiting researcher and 1 intern.

Numerous datasets are gathered and generated, climate models are validated and various research activities are conducted. For instance a new methodology to generate scenarios of global warming using climate models while reducing the uncertainties related to the reference period are developed and the database is completed. Knowledge gaps identified during the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 6 (AR6) have started to be filled. In fact, mathematical methods are used to locate historical hotspot of Extreme Heat, Drought and Floods over Africa, to detect observed trends and changes and undertake attribution studies. Many robust features of climate change are projected including extension of arid lands, shifts in hottest thermal types, increases of heat stress and their impacts on human health and work productivity.

Models have also been built to model malaria and detect seasonality in climate extremes.

All these results are being tailored for the development sectors of Africa to serve as climate information in the AIMS climate service framework. The concept note for such framework are finalized.

Capacity building

The research chair and a number of postdocs have delivered lectures and hands-on training on climate modeling at various AIMS centers including Rwanda, Senegal, Ghana and Cameroon. First, students were exposed to an introductory course on climate science dealing with the functioning of the climate system, the evidence and causes of climate change and the global climate debates and goals. Second, they were trained on climate modeling on both the theoretical aspect and practically. The dynamical core, parameterization and discretization in climate models are established and the way it can be used for climate change studies are discussed. More than 20 students from the structured Master programme of these AIMS centers have been supervised on emerging climate topics. Of particular interest this year, a group of eight students, 4 from AIMS Rwanda and another 4 from University of Leuven (Belgium) are hosted in collaboration with REMA and they investigate the stratification and stability of Lake Kivu as it relates to activities going on at the Lake and climate change. They provide very relevant and key preliminary results and defend successfully their essays.





In terms of research, we are collaborating with various institutions in Africa, Europe or America



Transdisciplinary group

As part of the AIMS climate service framework, a transdisciplinary group is being established. This group of consists of scientists, policymakers, practitioners from research centers, regional climate centers, governments agencies, international development agencies, youth, extensions, etc. In a nutshell, it role is to co-design, understand and translate the science into services and help in dissemination and uptake. Some members have been selected. Other memberships are being explored.

International collaborations and partnerships

AIMS-Canada research chair group have established collaboration with local, regional and international institutions. In Rwanda, REMA is a key partner. In fact, REMA will host the 2023 Open Science Conference of the World Climate Research Program and AIMS is a hosting partner. Discussions are ongoing with UNECA to host the 10th Conference on Climate Change and Development in Africa (CCDA-10).

Recently, the IPCC has released its AR6 and the AIMS-Canada chair is a lead author at the chapter 12 of the Working Group 1 (WG1) report and contributing author at the chapter 11 and Atlas as well as chapter 9 (i.e. Africa) of the WG2.

We also contribute to the platform Climate Research for Development framework hosted at UNECA by the African Climate Policy Center.

In terms of research, we are collaborating with various institutions in Africa, Europe or America. Among them are the World Meteorological Organization, Regional Climate Prediction services division in Geneva, Switzerland; the Center of Excellence for Climate Change Research/ Department of Meteorology of the King Abdulaziz University in Jeddah, Saudi Arabia; the University Grenoble Alpes, IRD, CNRS, Grenoble-INP, IGE in France; the European Commission Joint Research Centre (JRC) in Ispra, Italy; the "Commissariat aux Energies Renouvelables et à l'Efficacité Energétique" in Algiers, Algeria, the Abdus Salam International Centre for Theoretical Physics, Earth System Physics section in Trieste, Italy and the Loyola Marymount University in Los Angeles USA.

Workshops and conferences

This year, a number of important workshops and conferences have been attended. They include the joint meeting of the scientific and advisory board and the Institutional Collaborative Platform of the Climate Research for Development initiative in Africa in Dakar; the UNFCCC COP26 in Glasgow (virtual), the COP15 of the UNCCD in Abidjan; the AGRHYMET international climate conference in Niamey, the CCDA9 in Cabo Verde (virtual), the WASCAL workshop on HPC in Ouagadougou and the Africa Climate Talks organized by UNECA in Maputo. For all these events, we at least deliver a keynote speech and/or chair a session. In particular, during the Africa Climate Talks, we deliver the evidence, impacts and risks of climate change in Africa to kick off the Talks about the position of Africa for the next UNFCCC COP27 hosting the climate change negotiations.



AIMS RWANDA TEACHER TRAINING PROGRAMME

MILESTONES

276,323 students directly reached through key outreach programs

4,527 teachers trained and engaged in school based CPDS (Continuous Professional Development Trainings)

417 school head teachers, 97 Sector Education Inspectors and **28 DEOs and DDEs** were trained on transformative approach for monitoring and evaluation

2,241 teachers and DOS trained in ICT through ICDL

42 teachers

awarded scholarship to continue their studies by upgrading from A1 to A0

470,000 plus students indirectly reached through trained teachers

A total of 33 retired teachers were visited across 9 districts and above 1,500,000 Rwandan francs were raised by teachers to offer gifts to retired teachers

.....

In partnership with the Rwanda Social Security Board, Airtel Rwanda, KCB Bank Rwanda, Kibogora Polytechnique and the University of Technology and Arts of Byumba (UTAB); a total of 19 million Rwanda Francs was collected and 15 Scholarships (full and partial) were secured from two institutions of higher learning and given scholarships to 42 teachers where 60% of them are women.





TIMELINE: 2021-2022

On September 16, 2021; AIMS-TTP facilitated teacher to teacher training aimed to boost AIMS TTP teachers' appreciation of learning from one another (peer-to-peer-based continuous professional development) from across the districts where 21 teachers (14 males and 7 females) were selected for four hours in two days of training for the pilot training. Teachers were asked to express interest in the advertised training which was facilitated by the volunteer teacher trainers. 1,160 teachers expressed interest in training in Google documents and 1,756 teachers expressed interest in training in Microsoft 365 suite.

On September 22 and 23, 2021, AIMS-TTP organised two virtual consultative sessions with 21 teachers (14 males and 7 females) working in special needs schools and focusing on visibly impaired and audibly impaired students. The consultative sessions focused on identifying the gaps in the learning and teaching of mathematics and sciences and discussing how the AIMS TTP programme can also accommodate these teachers and their students into the programme activities.

From October 30 to November 1, 2021, a total of 28 district directors of education (24 males and

4 females) were trained on the preparation and implementation of district assessments.

On October 26, a total of 1,022 head teachers, SEOs, DOSs were hosted to an online consultative session to discuss the implementation of science hour and school-based CPDs for mathematics and sciences in the schools.

A total of 900 teachers and director of studies were registered for remote training on ICDL (630 males and 270 females). The next cohort of 800 commenced training in March 2022 (560 males and 240 females)

From 14th to 16th September 2021, AIMS TTP organised a three-day training of master trainers (16 males and 21 females) which focused on identifying errors, common mistakes and misconceptions of specific topics from sample students work from district assessment.

From 14th to 16th September 2021, AIMS TTP organised an 8-day workshop for teachers which was conducted in Musanze districts where the first set of 328 teachers (233 males and 95 females) developed the practical and the improvisations in biology, chemistry, mathematics and physics. The second set comprised 105 teachers (74 males and 31 females).



AIMS-TTP met with District Director of Education (DDE), District Education Officers (DEOs) Secondary and TVET, Sector Education Officers (SEOs) and Head Teachers (HTs) of Secondary Schools from 7 districts where a total of 658 districts, sector officials and head teachers (519 males and 139 females) attended.

A total of 108 teachers, head teachers, SEO's, sector coordinators, DOSs, SEI's and DDEs were awarded different prizes, including laptops, tablets, and smartphones during the teachers' award event that took place on the 5th December 2021.

On November 10, 2021, AIMS-TTP officially launched the science hour activity through a Radio programme titled "Science Hour on World Science Day, where a total of 177 schools with 23,627 students tuned in." The science hour is an avenue created to inculcate the habit of self-learning, peer learning and teamwork spirit among students.

In partnership with Edified Generation, Rwanda and PolyUp organised the second edition of the national robotics and mathematics challenge for secondary school students.

AIMS partnered with Airtel to provide 4,108 routers and mifi sim cards to allow teachers to call free of charge in the call user group and be able to access internet connection in any part of the country they are in, in order to conduct research.

On February 11th, 2022, AIMS-TTP organised the International Day for Women and Girls in Sciences where a total of 107,369 students, teachers and members of the community participated.



Industry Visits from 7th to 11th of March 2022, where approximately 2,000 students and 409 teachers from the 14 LIT districts had a study visit to 29 industries and factories in order to observe the practical applications of the theories the students have studied in sciences and mathematics in their various classrooms.

On 5th April 2022: Celebration of the International Women Day 2022 where 142 guests participated.

Training on the implementation of district assessment 2022 where 380 teachers attended.

Following the first three phases of selection, AIMS TTP with partners organised a 7-day residential camp for 12 secondary school students on 9th – 15th April 2022. At the end of the camp, a test was conducted for the students which decided the students to represent Rwanda at PAMO 2022 on 20th – 29th June 2022 in Morocco and the International Maths Olympiad on 6th – 16th July 2022 in Norway.



AIMS Rwanda Annual Report 2021/2022 >



AIMS Rwanda TEACHER TRAINING PROGRAMME: **TESTIMONIALS**





My name is Beatrice Nshizirungu, a teacher of physics in Kayonza District. I have known and worked with AIMS Rwanda since 2018. The four years have been impactful on and for me. At the beginning, it was difficult to believe that AIMS TTP was and (still) is a programme of AIMS Rwanda. Now, I understand AIMS TTP completely because it was then not a popular AIMS programme and I can say that AIMS got known by most people in Rwanda through its TTP Programme.

The impact of AIMS TTP on my professional career cannot be quantified as it has been tremendous. And this has been my state since I began to associate with AIMS through the programme.

The TTP has motivated women scientists through the mindset change approach on gender. In the past, I considered men as stronger than women because of our background and African culture in mathematics and sciences, but now I can confirm that when both are given equal opportunities in the learning process, they (women) perform better. AIMS TTP helped me to overcome all misconceptions and be a confident woman and role model for my students and fellow women teachers. Also, I have become an effective communicator with honed skills in leadership and interpersonal relations. For instance, in the past, I was afraid of giving a speech in front of many people but now I am proud to help people through training on public speaking as I have had experiences being on television and I can actively participate in international events.

Furthermore, our mastery of content has improved immensely as we have always allotted time to revise content during preparations for tests or examinations.

Another impact of AIMS TTP has been that I was able to enrol for several courses and received different certificates for different modules (e.g., pedagogical content teaching in the time of corona.)

Finally, AIMS TTP events and platform have given an opportunity to meet other colleagues and scientists where we discuss and exchange ideas, knowledge, experiences and much more across 14 districts in Rwanda. And in the long-run, this has made us good leaders in facilitating activities organised by AIMS TTP in our different groups at our various districts.

By Mrs Beatrice Nshizirungu





Mr Xavier Rurangirwa is the Director of Studies and Teacher of Chemistry and Biology at ES Rutobwe (Ecoile Secondaire Rutobwe) and AIMS TTP Regional Coordinator.

AIMS TTP helped me in different ways and I can list some. I have improved professionally during the past years. Collaborations, interactions and friendships with my fellow teachers and learners have improved a lot. Also, the preparations for my lectures, assessment tools and techniques which I use for our learners have greatly changed. Also, my teaching approach has improved.

Presently, I make use of improvisation in teaching chemistry and biology without depending solely on laboratory materials. The engagement level and excitement of learners during my classes have developed and improved. Another impact is that the way I conduct researches on new concepts, using technology to develop my lectures have improved; and all these, I learnt from AIMS Rwanda.

The TTP programme has enabled me to be more gender sensitive during my teaching segments and lecture sessions.

Another professional impact has been my English language usage cum proficiency which has developed due to the different trainings and workshops I participated in. This has aided in the delivery and quality of my lectures. This has invariably limited communication barrier to the barest minimum.

Another impact has been through the pedagogical/ educational content. The different trainings organised by AIMS TTP have played a crucial impact on my teaching methodologies and my holistic professional approach and comportment in front of my students have changed drastically and positively.

An important impact which is sometimes overlooked has been the technological and internet tools availed by AIMS Rwanda to all the TTP teachers including I which have aided our research work.

My leadership skills have improved tremendously. Besides the coaching, training and facilitating skills I gained from AIMS TTP, I am also regional coordinator in four different Districts where I manage different AIMS activities such as in-person training, interacting with local leaders, solving challenges of local teachers, just to name a few. I have achieved this and still achieve this through the TTP programme where the thinking is to work with teachers and not work on teachers.

Professionally, I have participated in different seminars, workshops and received several certificates (e.g. ICDL, English proficiency, online seminar certificates etc) which are important for my professional career. And these professional milestones have propelled me forward.

Professionally, using ICT tools during teaching and assessment have improved my skillsets tremendously.

There are challenges but I have learnt. Even though, more laboratory materials are needed and more science kits are needed in my school, we have forged ahead. Conclusively, with what we learnt on how we can develop science boxes, my teaching will be more successful and make more impact.

By Mr Xavier Rurangirwa





KEY EVENTS, VISITS, SEMINARS AND WORKSHOPS

During the year in review, a plethora of events took place and were organised by AIMS Rwanda. Activities ranging from workshops and seminars on several areas including Artificial Intelligence, soft skills, team building etc. Visitations to various sites in Rwanda, recruitment drive to neighbouring countries, celebrations of designated international days to name a few.

1. Soft Skills with AIMS Cameroon Alumni Hariet Marima From Monday 14, Wednesday 16 to Friday, 18 February 2022, Hariet Marima who is an AIMS Alumna, covered emotional intelligence, psychometric testing, and business ethics.

2. International women and Girls Day in Science

About 17 female students visited 4 districts across Kigali.





3. International Women's Day

This special day was a Celebration of International Women's Day and AIMS Rwanda students went to Serena Kigali Hotel to network, meet RAWISE members, exhibitors, industry experts and high school students.





4. Umuganda

During the Umuganda, 15 students went to the local sector to assist in fixing the roads using Dono technology, in collaboration with CORE Rwanda, local leaders and the embassy of Japan.

5. Kwibuka 28

A trip was taken to Nyamata Genocide Memorial site with members of the Secretariat, African Leadership University and University of Rwanda and the entire AIMS Rwanda community.



6. Outreach to Rubavu and Industry visit

Outreach to Young Women Destination Rubavu.During a trip to the Rubavu district, students had the opportunity to conduct an outreach programme to the Young Women Destination in the district of Rubavu. Students shared, listened, and donated to the ladies of the programme.

Industry Visit to Pfunda Tea Plantation All Students were able to get a tour of the tea plantation and factory and were able to understand and apply climate science theories into practice on how it impacts tea growth/ supply and production.



7. Roundtable Luncheon with the AIMS Global Network CEO

One of the mantras of AIMS Rwanda is complete camaraderie amongst the staff, academia and students. And this was exemplified with a social gathering and hang out which resumed after two years of non-activity due to the corona-virus pandemic. The event was very interactive as Lydie Hakizimana, a seasoned educator, successful entrepreneur, and the Chief Executive Officer of AIMS Rwanda interacted with each group of students.



















Abigaile Ukunze Dukorerimana Rwanda

Impact of Climate Change and Geoengineering on Rice yields in Rwanda



Almokashfi Algiliy Omer Hamed Sudan



Time of Emergence of Precipitation Change in Sudan and South Sudan

Ange-Clement Akazan Ivory Coast

Deep Learning Methods for Weather Prediction



Angelo Junior Kitio Tsague Cameroon



Tensor decomposition techniques for machine learning methods and applications in hyperspectral image analysis



Athanase Hafashimana Rwanda

Response of surface air temperature to anthropogenic forcing over Rwanda



Bonaventure Kagarura Rwanda



Modelling water level change of Lake Kivu

Buriro Chimodoi Ezekia Tanzania

Investigating the Impact of Climate Parameters on COVID-19 Incidence and Death cases in Rwanda



Callixte Habamenshi Rwanda



Change in Drought Trends and Periodicity over Rwanda.

Caren Muhonja Ndeda Kenya

Bayesian Methodology with Application to Analysis of Drivers of Banking crisis in Africa





Chantal Umutoni Rwanda



Impact of Climate Change and Geoengineering on Maize yield in Rwanda

Chris Toumping Fotso Cameroon

Deep Learning Approach for Solving Stochastic Partial Differential Equations



Das Dores Ngueussie Ngamini Cameroon



Observation and the Model Prediction Across Scales Simulation of the tropical cyclone batsirai over Madagascar

Machine Learning Based Automated Slum Detection Using Building Footprints

David Kamau Irungu Kenya



David Nkundumukiza Rwanda



Modelling impacts of climate variability on the incidence of cholera in the East African Community (EAC)



Delphine Murekatete Rwanda



Predicting Motor Insurance Claims (XGBoost versus Logistic Regression)

Désiré Kabuya DRC

Modeling Temperature in Lake Kivu



Dickson Tulyasingula Uganda



Observed and Simulated Summertime Rainfall Variability Over West Africa Using Empirical Orthogonal Function (EOF)

Donald Kougang Yombi Cameroon

Performance of linear codes and degradation of symmetric channels



Donatha Nyiramaritete Rwanda



Deep Learning of Mortality Modeling



Elyse Mutabazi Rwanda



Impacts of Climate Change on the African Easterly Jet and the African Westerly Jet

Emmanuel Amankwaa Adjei Ghana

Crops Index-Based Insurance in Africa

Enock Mwizerwa Rwanda



Modelling the impacts of droughts on tuberculosis over East African Community (EAC)

Erneste Hakizimana Rwanda

Modeling weather factors in Rwanda using Markov chains (Case study: Nyagatare district)



Esperance Kagoyire Rwanda



Bivariate Copula Spatial Models for Analysis of the Joint Burden of Anaemia and Stunting among young Children in Rwanda



Ferguson Chalumba Zambia

Introduction to Survival Analysis



Geraldine Banda Zambia

Impact of climate change and Geoengineering on cattle production in Zambia

Gloria Salome Gabriel Shirima Tanzania

Investigating the impact of larviciding as a supplementary intervention for malaria control in Rufiji: a simulation Study



Hassan Kehinde Ajulo Nigeria



Modeling The Levels of Deprivation Across Small Geographical Areas of COVID19 Pandemic: A Geographically Weighted Random Forest Approach.

Innocent Twagirayesu Rwanda

Extreme climatic events and human displacement in some East African





Jeanette Munezero Rwanda

Modelling the impacts of heatwave on mortality in South Africa



Jean Modeste Mushimiyimana Rwanda



Middle Water Layer Temperature in Lake Kivu

Jeanne Niyonteze Rwanda

Effect of Climate Variability on Stratification of Lake Kivu



John Kamwele Mutinda



Modeling the Impact of Meteorological and Air Pollution Parameters on COVID-19 Transmission in Western Cape, South Africa

Joseph Kyelu Gwaka Uganda

Machine Learning Risk Prediction Models for the Effect of Climate Change on Bovine Respiratory Diseases in the World.





Josline Banza Mwape DRC

A Synthetic Training Data for the contaminant plume source history reconstruction problem using Neural Network.



Koffivi Fidele Gbagbe Togo



Approximation of Nonlinear Inverse Operators using Artificial Neural Networks with an Application to the Tikhonov Inverse Gravimetry Problem

Emerging Statistical Machine Learning Methods for the Characterization and Understanding of Diabetes Risk Factors



Liliane Uwajeneza Rwanda



The Stability of Thermal Stratification in Lake Kivu

Louis Mozart Kamdem Teyou Cameroon

A computational exploration of emerging methods of variables importance estimation





Luel Hagos Beyene Ethiopia



Deep Learning Methods for Text-to-Speech with Application to the Ethiopian Geez Language

Mahamat Azibert Abdelwahab Chad

Convolution Neural Networks for Breast Cancer Analysis



Ecological niche modelling for risks prediction of swine fever diseases

Cameroon

Marie Mediatrice Iradukund Rwanda

Rainfall Threshold Triggering Floods



Mazin Abdullatif Abdulrahman Mukhtar Sudan



Deep Learning for Age-Related Macular Degeneration and Diabetic Macular Edema Detection on OCT Images



Mireille Iradukunda Girituze - Rwanda



Estimation of dependency among weather factors using the Vine copula approach. Case-study: Musanze District (Rwanda)

Oluwatosin Adetoye Akande Nigeria

Artificial Neural Networks Under Constraint



Phoebe Babrah Atieno Kenya



Using Deep Learning Methods on Facial Image Data to Detect Autism Spectrum Disorder (ASD

Rabiu Tsoho Muhammad Nigeria

Deep Learning Methods for Real-Time Traffic Speed Estimation, Vehicle detection and Identification.



Rebecca Kwame Ghana



Modelling the Impact of Climate Change on COVID-19 Transmission in Ghana



Rebecca Nkiruka Ndukwe Nigeria



Machine Learning Classification on SVD-PCA Reconstructed Large Dataset

Redempta Blandine Ishime

Impacts of Climate Change and Geoengineering on Cattle Production in Rwanda



Regis Konan Marcel Djaha Ivory Coast



Application of Darcy's law in a 2D porous embankment

Rouaa Isameldin Abdalla Mohamed - Sudan

Analysis of Boolean functions with application to voting



Salomon Lova Tina Ramaroson - Madagascar



Stochastic Processes and applications to Finance, Case study: Stochastic Interest Rate Models for forecasting the Term Structure of Interest Rates of Kenya



Sedjro Salomon Hotegni Benin



Efficient Novelty Detection Methods for Early Warning of Potential Fatal Diseases

Sekou A. Koisiah Liberia

Interannual to Decadal Temperature and Precipitation variability Over Central Equatorial Africa

Solomon Ogwal Uganda



Uncertainties in Climate Change Projection

Toheeb Aduramomi Jimoh Nigeria

Generative Adversarial Networks (GANs) Ensemble for Anomaly Detection in Power Generation Plants



Yves Kimbele Heri DRC



Data Analytics to Identify Electricity Theft





STUDENTS' Stories

Several academic students gained valuable academic experience(s) during their stint at AIMS Rwanda.

• AIMS Rwanda and (Rwanda Environment Management Authority) REMA: The Lake Kivu Project

Jean Modeste Mushimiyimana (Rwandan): AIMS Rwanda 2022

I studied Mathematical Science for Climate Resilience. And I am amongst the four AIMS Rwanda students who work on the project on the AIMS REMA project. The other students' names are; Liliane Uwajeneza, Jeanne Niyonteze and Bonaventure Kagarura.

The AIMS Rwanda- REMA (Rwanda Environment Management Authority) project is a project submitted by Rema. They were looking for some researchers to work on a project focused on Lake Kivu. That project had sub topics which we worked on while we did our thesis. At the beginning, we did some data collection that were used within the project, may I add that some previous data were also made used of. So, the whole project was categorised into four sub topics handled by four students. The first part was to work on and study the stratification within Lake Kivu. Apart from studying the stratification, we linked the stratification within the lake with climate change. What do I mean by stratification? This is the way water is being classified within the lake by considering the differences in features or densities.

For the second part, we calculated Lake Kivu's stability. This was a case handled by one of the students. This study was how the stratification can resist disturbances within Lake Kivu. Once you know the level of stability, you can know how water is being mixed within the lake. After this was done, the student discovered the influence of climate change on that stability.

The third subtopic was about the study of the water river change within Lake Kivu and also to relate with climate change.



The fourth subtopic was to investigate the deep-water temperature or to model the deep-water temperature and to check or to explore the influence of climate change on the temperature within the water but also at the bottom of Lake Kivu.

Apart from these cases of ours, REMA requested us to build a database where they can store all their data. They were also looking at some C script, Ada, or Python, that can be used with someone if he or she wants to calculate a stability in another thing called the surface margin. And it is what we are doing now after completing our thesis and even after graduating in July 2022.

We are working on databases and also trying to write those requested scripts that can be used by REMA to compute some projects they are working on.

I think we learnt a lot from the collaboration between AIMS Rwanda and REMA. Especially during the data collection campaign. We experienced reality and the practicality; not just using theories. It was practical. In some areas where we were supposed to collect the data by ourselves, we had hands-on practical experiences.

Another experience was that we saw how data is a very important aspect within the project. Because for us, sometimes, we were struggling with insufficient data since we were the ones collecting and collating data. We had and still have experiences related to reality.

• Belgium Students

The student exchange programme for 2022 had four Belgian students arrive at AIMS Rwanda and they had these comments to make:

On their first few days at AIMS Rwanda and how their first impressions; Victorine Daubies stated that AIMS Rwanda is an organised University which is opening a lot of opportunities for African students. She went further to state thus; "We were very well welcomed by the AIMS Rwanda family and had very comfortable rooms."

On her part, Constance Janssen said that; "I really liked being in AIMS Rwanda as the ambiance was and is very friendly like a big family. I was very impressed with the motivation of the students and how immersed the students were and are. The school is also very well equipped with modern technological amenities which is an important ingredient to ensure the academic progress of everyone therein. We were very well welcomed by the AIMS Rwanda family and had very comfortable rooms."

Whilst, Adélaïde Marchand noted that what had been seen at AIMS Rwanda was very nice as "we (the students from Belgium) learned and interacted with the students who welcomed us wholeheartedly with open arms. The AIMS team was also very nice and devoted to making us feel at home. We attended the meeting with the founder of AIMS Rwanda, it was very interesting and it feels like the students are very motivated."

On what brought them to AIMS Rwanda and what the academic students' exchange programme is about; whilst Adélaïde Marchand stated that the Belgian students are in Rwanda for a project which is in collaboration with AIMS Rwanda students which is mainly about the data monitoring of the lake Kivu, Constance Janssen simply stated that; "Data monitoring at the lake Kivu."

In her own words, Victorine Daubies posited that; "We worked on a project with four students from AIMS Rwanda which was given by REMA. We worked on it through-out the whole year and now since we are in Rwanda, we would be visiting Lake Kivu (which is the subject of our project). And also meet and visit our Rwandan colleagues and also to enjoy the fascinating country."



On what unique experiences they are willing to garner during their stint at AIMS Rwanda; Victorine Daubies is looking forward to the cultural exchange between Belgium and Rwanda. And very interested to learn about the AIMS community which she views as very attractive and promising. She is also willing to work with the AIMS Rwanda students in real-time ans opposed to only collaborating online which was the modus operandi in the past.

Adélaïde Marchan is of the view and hopes to discover the culture and the beautiful landscapes of Rwanda and in her own words; "I am already very impressed by the country and with what I have seen so far. I also hope to make interesting exchanges with people from AIMS Rwanda and REMA.

For her part Constance Janssen is also interested in working on how to manage such projects which required long distance online meetings. Also, she is interested in meeting and interacting with other students from other countries and other fields of studies. And to learn more about the culture of the country called Rwanda.



• Data Science Students' Club

Rebecca Nkiruka Ndukwe (Nigerian): AIMS Rwanda 2022

Rebecca Ndukwe, a current graduate from AIMS Rwanda and a member of the Data Science Club. In the club, we started with 18 students, and it was structured in such a way that it did not really affect your studies. And no one was actually forced to continue just in case you feel that you're beginning to lag behind in studies, you can easily drop out without anyone knowing. It was meant to put most of us that loved coding, and wanted to start our careers in the parts of data science, or data analysis, bringing real situations for us to work around with some of the theories we have gotten here at AIMS. The three major works we did so far at AIMS Rwanda were creating an algorithm that takes the results of students and creates several spreadsheets. Each spreadsheet has its own functionality, one could be covering just the max, the other could cover just the gradients. And it was structured in such a way that for every student that doesn't really take that particular course, it would indicate that they really didn't partake in that course. So that, just in case you want to create a general overall performance for all courses. It will be stated for each student that each student took 11 courses out of 18 courses. It would be able to count for the user, the number of courses the particular student participated in. We also worked around creating a unique dashboard for AIMS Rwanda centre. And the dashboard was meant to be assessed by both alumni, students, lecturers, visiting lecturers, researchers, prospective students.



And the long-term goal was to infuse both the online platform we have already for aims Rwanda, with this dashboard such that every student that has an access code, which could be your email address, or your identity card number, will be able to access personal information, submit assignments through the platform, having a oneon-one chat with visiting lecturers or prospective lecturers. You are able to go through previous work done by alumni, about their submitted Master's theses. And you would be able to get feedback regarding most of your performances from the lecturer. With the platform, you can create and generate your own transcripts given that your results are genuinely submitted by the lecturer. In essence, you would not know your results but when it's time for you to have it, you would be given an access code to see through your transcripts. That was the long-term plan. Another project was an algorithm that generates our transcripts, which we actually used for our current set to generate our transcripts and certificates.

For the project that was my best and most favourite, I would say creating the dashboard (which was and is still real-time) because and the reason being that, we were grouped and each group had their separate and special approach. Some groups walked around using Excel to create the dashboard. Another group decided to work with R and another group decided to work with Python. R is an open source, it's a programming language. And the advantage for one of the groups with R was that most of the packages they needed to use in creating their dashboard was just installation. But with Python, you needed a fore knowledge of C HTML to be able to go forward with it. With the dashboard, most of us who didn't really know how to make use of CC + + and had to learn HTML. We needed to know the bases and basics. We had a colleague that had an idea of C+ and he was able to put some of us through. The challenge we had was with our personal systems, trying to run the platform real time, was taking time since our system RAMS were quite small to work with, so, AIMS Rwanda gave us the AIMS Rwanda system to work with. And another was that we needed to have access to the AIMS Rwanda database because for the trial, we generated data for ourselves. We generated details of students, lecturers, to see how it runs. We started and ended at getting answers from the AIMS Rwanda database. That was where we actually ended which was quite interesting.



OUR PEOPLE (STAFF)

AIMS RWANDA LECTURERS 2021-2022

Name: Nationality • Affiliated University

Tovondrainy Christalin Razafindramahatsioro: Madagascar. University of Antananarivo, Madagascar Kouevi Assionvi Hove: Togo • AIMS Rwanda (tutor) Kai Arste: Germany • AIMS Rwanda Pawel Danielewicz: Germany • Michigan State University, USA Abdo Elnaser Degoot: Sudan • AIMS Research Centre, Rwanda **Evans Gouno:** France • (Université de Bretagne Sud, France) Blaise Tchapnda: Cameroon • AIMS Rwanda Leon Ruganzu: Rwanda • UNiversity of Rwanda, Rwanda Marc Geiller: France • CNRS, ENS de Lyon, France Abebe Gelatu: Ethiopia. AIMS Research Centre, Rwanda **Zoe E. Wyatt:** Australia • University of Cambridge, UK Viani Djeundje Biatat: UK • University of Edinburgh, UK Marcel Ndengo: Rwanda • University of Rwanda Dunstan Matekenya: Malawi • World Bank Schroers Bernd Johannes: Germany • Heriot-Watt University, UK Ernest Fokoue: Cameroon • Rochester Institute of Technology, USA James A. Vickers: UK • University of Southampton, UK Abiodun Babatunde Joseph: Nigeria • University of Cape Town, SA Mouhamadou Bamba Sylla: Senegal • AIMS Research centre, Rwanda Corina Constantinescu: Romania • University of Liverpool, UK Hippolyte Tapamo: Cameroon • University of Yaounde, Cameroon Jodi Mead: USA • Boise State University, USA Claude Tadonki: France • Mines ParisTech, France Andreas Rupp: Germany • LUT University, Finland



AIMS RWANDA TUTORS 2021-2022

Name: Nationality • Affiliated University

Dr. Kouevi Assionvi Hove: Togo • AIMS Rwanda Centre
Mr. Michel Murwanashyaka: Rwanda • AIMS Rwanda Centre
Dr. Mitcha Malanda Cornelie: Congo • AIMS Rwanda Centre
Dr. Armeline Dembo Mafuta: DRC • AIMS Rwanda Centre
Ms. Babyale Sandra Rebecca: Uganda • AIMS Rwanda Centre
Dr. Finlay McIntyre: British • University of Edinburgh
Dr. Kameni Nteutse Peguy: Cameroon • AIMS Rwanda Centre
Ms. Zeinab Almahdi Mohammed: Sudan • AIMS Rwanda Centre
Dr. Stive Roussel Tankio Djiokap: Cameroon • AIMS Rwanda Centre
Ms. Aline Uwimbabazi: Rwanda • AIMS Rwanda Centre
Mr. Joel-Pascal Ntwali N'konzi: DRC • AIMS Rwanda Centre
Mr. Prudence Djagba: Benin • AIMS Rwanda Centre
Mr. Alexander Nedergaard: Denmark • ETH Zurich

AIMS RWANDA RESEARCHERS 2021-2022

Name: Title • Category/Group

Dr. Alima Dajuma: PostDoc fellow • Climate Ms. Aulan Lucrece Zahoundo: Msc student • QLA Mr. Buri Gershom: PhD student • Research **Dr. Degoot Abdoelnaser:** PostDoc fellow • Climate Dr. Djan'na Koubodana Houteta: PostDoc fellow • Climate Mr. Domini Jocema Leko Moutouo: Msc student • QLA **Dr. Paterne Gahungu:** PostDoc fellow • Climate Mr. Serge Adonsou Raphael: Msc student • QLA Dr. Sylla Bamba: Research chair • Climate Dr. Tall Moustapha: PostDoc fellow • Climate Dr. Yae olatoundji Gaba: PostDoc fellow • QLA Mr. Jean Remy Kubwimana: Msc student • Climate Ms. Jodelle Aurelie Kemme: Msc student • QLA Mr. Mahamat Azibert: Abdelwahab • Msc student • QLA Mr. Ange-Clement Akazan: Msc student • QLA Mr. Luel Hagos Beyene: Msc student • QLA Mr. Salomon Hotegni: Msc student • QLA Mr. John Bagiliko: PhD student • QLA Ms. Nelie Laura Makenne: Msc student • QLA Dr. Vick Kondi Akara: PostDoc fellow • Climate



Ms. Henriette Ingabire: Msc student • Climate Dr. Issa Karambal: Junior Research Chair • QLA Ms. Jacqueline Byukusenge: Msc student • Climate Mr. Jean De Dieu Munezero: Msc student • Climate Mr. Michael Rwema: PhD student • Climate Mr. Nasson Ntwari: Msc student • Climate Dr. Rosita Yocgo: Resident Researcher • Climate Ms. Uwineza Marie Aimee: PhD student • Climate Mr. Thacien Hagenimana: Msc student • Climate Ms. Theonille Mukamana: PhD student • QLA Dr. Abebe Geletu: Gemany Research Chair • Optimazation Dr. Peguy Kameni Nteutse: PostDoc • Optimazation Ms. Audrey Demafo: PhD student • Optimazation Mr. Michel Murwanashyaka: PhD student • Optimazation Mr. Remy Ineza Mugenga: PhD student • Optimazation Dr. Jan Hazla: Gemany Research Chair • Disctrete Mathematics Dr. Tina Ambinintsoa Malalanirainy Rakotoson: PostDoc • Disctrete Mathematics Ms. AbdouMajeed Alidou: PhD student • Disctrete Mathematics Mr. Donald Kougang Yombi: PhD student • Disctrete Mathematics Prof. Wilfred Ndifon: Resident Researcher • Research Dr. Isambi Sailon Mbalawat: Resident Researcher • Research Prof. Blaise Tchapnda: Resident Researcher • Research Prof. Sam Yala: Resident Researcher • Research

AIMS RWANDA STAFF 2021-2022

Name: Nationality • Title

Prof. Dr. Sam Yala: DRC • Centre President
Prof. Blaise Tchapnda: Cameroon • Academic Director
Mr. Emmanuel Kanamugire: Rwanda • Information Technology Manager
Mr. Aimé S. Kabandana: Rwanda • Facilities Manager
Mr. Aime Beza: Rwanda • Information Technology Officer
Mrs. Carine Umulisa: Rwanda • Research Coordinator
Mr. Bernard Rwagasore: Rwanda • Communications Officer
Mrs. Ariane Moira Rutayisire: Rwanda • Finance Officer
Mrs. Beathe Uwizeye: Rwanda • Administration Officer
Mr. Francois Papin Niyonkuru: Burundi • Academic support officer
Mr. Maurice Cyubahiro: Rwanda • Driver and Logistics Assistant
Mr. Methode Tuyisenge: Rwanda • Office Coordinator

NEW APPOINTMENTS

Ms. Merveille Mankoto: DRC • Programme Manager Mrs. Florence Niwemugeni: Rwanda • Finance Manager

50

Our Partners













Cameroon

Ghana

Rwanda

Senegal

South Africa

Tanzania













Johnson-Johnson







Federal Ministry of Education

and Research







Canada



AIMS Rwanda Centre, KN 3 Ave, Remera, Kigali, Rwanda ♥ +250 788 312 469 ₱ +250 788 312 469

