

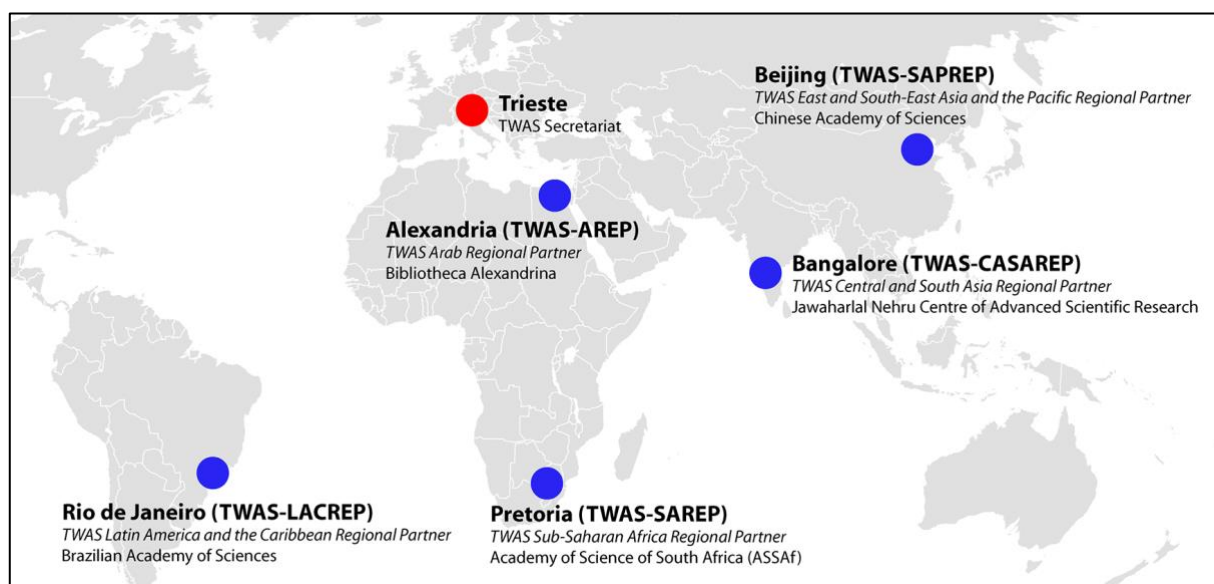


Young Affiliates

2022-2027

TWAS Young Affiliates 2022-2027

Since 2007, each year each of the five TWAS Regional Partners (formerly Regional Offices) has selected up to five excellent young scientists from their region as TWAS Young Affiliates for a period of six years (five years until 2019). The Young Affiliates must be living and working in a developing country at the time they are selected, and have an excellent track record of at least 10 international publications. Here we present the bio data for the 16th selection of TWAS Young Affiliates.



Arab Region

TWAS Regional Partner for the Arab Region (TWAS-AREP) at the Bibliotheca Alexandrina in Alexandria, Egypt

Amira Said Mohammed Al Kharusi

College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

eMail: akharusi@squ.edu.om

Amira Al Kharusi is an associate professor and assistant head of the Department of Physiology at Sultan Qaboos University in Oman. At the same university, she teaches organ physiology in different body systems for medical students. She earned a Medical Doctor degree from Sultan Qaboos University in 2008, and a PhD degree in molecular endocrinology from the Karolinska Institute in Sweden. Her research explores the role of prolactin and its receptor in cancer pathogenesis, and investigates different regulators of the prolactin receptor with a specific focus on SOCS2 and TSC2 proteins. She supervised one PhD student and two master's degree students, and she is recognized by the college of medicine and health sciences to be involved in reviewing applications submitted for college internal grants and strategic grants. Similarly, she is involved as a scientific judge in Oman Medical Specialty Board.

Gomaa A.M. Ali

College of Marine Sciences and Aquatic Biology, University of Khorfakkan, Khorfakkan, Sharjah, United Arab Emirates

eMail: gomaasanad@gmail.com, gomaasanad@azhar.edu.eg, gomaa.ali@ukf.ac.ae

Gomaa Ali is an associate professor at University of Khorfakkan (United Arab Emirates) and Al-Azhar University (Egypt). He has 17 years of experience working in the research areas of materials science, humidity sensing, graphene, supercapacitors, water treatment, and recycling. He was awarded his PhD from Universiti Malaysia Pahang (UMP), Malaysia. He is the recipient of some national and international prizes and awards: TWAS Arab Regional Partner Award (2018), Arab Scientific Community Organization Award (2022), Mohamed Farid Khamis Award in Research Excellence from British University in Egypt (2024), Individuals Award from Academy of Scientific Research and Technology, Egypt (2021), Obada International Prize (2021), Arab Water Council Award (2022), Gold Medal from Archimedes, Russia (2014), Green Technology Award from Creation, Innovation, Technology and Research Exposition, UMP (2015), Gold Medal from Department for Business, Innovation and Skills, United Kingdom of Great Britain and Northern Ireland (2015). He has been included in Stanford University's list of the World's Top 2% Scientists. He has published more than 175 articles and 30 book chapters. So far, he has over 8,500 citations and an h-index of 56. He is an editor of many Web of Science journals. He is an affiliate of international scientific societies, including TWAS and the African Academy of

Sciences, and a member of the American Chemical Society, and of the Royal Society of Chemistry. He is an editor of some handbooks like *Waste Recycling Technologies for Nanomaterials Manufacturing* Springer, 2021; *Handbook of Biodegradable Materials* Springer, 2022; etc.

Aida Benchaabane

Aviation School of Borj El Amri , Science and Technology for Defense Laboratory , Military Research Center, Military Academy, Tunis, Tunisia

eMail: benchaabane.aida@yahoo.fr

Aida Benchaabane is an assistant professor at the Aviation School of Borj El Amri, Tunis, Tunisia. She teaches optics, electronics, electromagnetism, thermodynamics, quantum physics, and inorganic and organic semiconductors. She holds a master's degree in fundamental physics from University of Monastir, Tunisia, and a PhD from the University of Jules Verne Picardie, Amiens, France, and University of Tunis El Manar, Tunis, Tunisia. She is a member of the Tunisian Society of Physics, the Royal Society of Chemistry (United Kingdom of Great Britain and Northern Ireland), and the African Network of Solar Energy. Before she was appointed to her current position, she spent over six years teaching fundamental physics in Tunisian universities. Her research interests in materials science include: conjugated polymers, inorganic nanoparticles, hybrid organic/inorganic materials, structural nanomaterials characterization, and optical nanomaterials characterization. She has published more than 20 scientific papers and four books in European publishing houses. She frequently acts as a member of scientific committees of international conferences and as a reviewer for journals.

Ghadir Hanbali

Department of Chemistry, An-Najah National University, Nablus, State of Palestine

eMail: g.hanbali@najah.edu

Ghadir Hanbali, a part-time lecturer in the Chemistry Department at An-Najah National University, was born in Nablus, in the West Bank, State of Palestine on 23 March 1993. She teaches general chemistry, organic chemistry, and analytical chemistry. She holds bachelor's and master's degrees from An-Najah National University, in the West Bank. In 2020, She earned a PhD in organic and analytical chemistry from An-Najah National University. Her PhD research was done in part at the Jülich Research Centre in Germany. Hanbali obtained an innovation initiative research grant in 2019 and 2022, and won the 2021 Young Arab Scientist Prize from TWAS Arab Regional Partner. She is a member of the scientific committee of the Organization for Women in Science for the Developing World. Hanbali published more than 20 scientific papers. Her research interests are mostly concentrated on purification of water using green nanomaterials. She attended and presented at many international scientific conferences inside and outside of Palestine, organizing many forums, and participating in many projects.

Fuad Ameen Saad Hasan

Department of Botany and Microbiology, College of Science, King Saud University, Riyadh, Saudi Arabia

eMail: fuadameen@ksu.edu.sa, fuadameen90@gmail.com

Fuad Ameen Hasan is an associate professor and researcher at the Department of Botany and Microbiology, College of Science, King Saud University, in Riyadh, Saudi Arabia. He served as a teaching assistant at Al-Hodeidah University, Hodeidah, Yemen. By the end of 2015, he earned his PhD in the biodegradation of urban waste by mangrove fungi, from King Saud University, Saudi Arabia. During his PhD research, he chose to work as a researcher at the Prince Sultan Programme at King Saud University from 2011 to 2015, and has been included as a young researcher in different areas of biotechnology and applied microbiology. After that, he was a principal investigator for numerous research projects, many dealing with new solutions to treat the fungal infections and bioremediation of polluted sites. He has collected and studied microbial strains from arid and marine ecosystems of Saudi Arabia, and his research on these organisms has taken him to every major type of terrestrial and marine bioecosystem. He is an author or coauthor of more than 160 book chapters and papers in peer-reviewed journals. Recently, he has been an editor for many ranking journals.

Central and South Asia

TWAS Regional Partner for Central and South Asia (TWAS-CASAREP) at the Jawaharlal Nehru Centre for Advanced Scientific Research in Bangalore, India

Otabek Norbuta Ugli Khakimov

V.I. Romanovsky Institute of Mathematics, Academy of Sciences of Uzbekistan and National University of Uzbekistan, Tashkent, Uzbekistan

eMail: hakimovo@mail.ru, khakimovo86@gmail.com

Otabek Khakimov is an associate professor at the Laboratory of Algebra and its applications at the Institute of Mathematics named after V.I. Romanovskii in Uzbekistan. At the same institute he is a secretary of scientific seminar under the Scientific Council on the Awarding of Scientific Degrees. Khakimov is an editor of the electronic journal *Bulletin of the Institute of Mathematics* in Uzbekistan. He holds a bachelor's and master's degrees in mathematical sciences from the National University of Uzbekistan named after Mirzo Ulugbek, also in Uzbekistan. He earned a PhD in physical and mathematical sciences from The Supreme Attestation Commission of the Republic of Uzbekistan based on the decision of the Scientific Council at the National University of Uzbekistan named after Mirzo Ulugbek. He also earned a Doctor of Science (the next degree after PhD in Uzbekistan) in physical and mathematical sciences from the Institute of Mathematics named after V.I. Romanovskii. His research interests are in the theory of dynamical systems, probability theory and stochastic processes, non-Archimedean analysis, and mathematical physics.

Naimeh Naseri

Department of Physics, Sharif University of Technology, Tehran, the Islamic Republic of Iran

eMail: naseri@sharif.edu, naseri1361@yahoo.com

Naimeh Naseri is an associate professor in the Department of Physics and co-affiliated in the Institute for Nanoscience and Nanotechnology at the Sharif University of Technology (SUT), in the Islamic Republic of Iran. She also holds bachelor's, master's and PhD in physics from the same university. She was postdoctoral researcher in the Institute for Research in Fundamental Sciences before she joined SUT as a faculty member to teach a variety of courses, and conduct research in the context of experimental condensed matter and nanophysics. Her main research area is the development of novel materials for applying in energy production and storage systems as well as biomedical devices. Thanks to research in this context for 15 years, she has published more than 50 papers in prestigious peer-reviewed journals, handled many industry-based projects and also founded Health and Energy, a well-equipped research laboratory in SUT, which resulted in more than 20 successful supervised PhD and master's theses. She received a prestigious award of Woman and Science from Ministry of Science, Research and Technology of Iran in 2020.

Prerna Sharma

Department of Physics, Indian Institute of Science, Bangalore, Karnataka, India

eMail: prerna@iisc.ac.in

Prerna Sharma is an associate professor in the Department of Physics, Indian Institute of Science, in Bangalore, India. Her research interests lie in the area of soft and living matter. She pursued a bachelor's degree in physics from Delhi University, India. This was followed by master's and PhD degrees in physics from the Tata Institute of Fundamental Research, in Mumbai, India. She conducted postdoctoral work at Brandeis University, United States of America, before joining as a faculty member at the Indian Institute of Science. In 2016, a Department of Biotechnology-Wellcome India Alliance Intermediate Fellowship was awarded to her to lead a research programme in ciliary mechanics. In recognition of her research work conducted in India, she was awarded the Indian National Science Academy Young Scientist Award for 2018. She is known for her contributions to identifying mechanisms of micro-phase separation in membranes and the role of friction in ciliary beating.

Musrat Zahan Surovy

Institute of Biotechnology and Genetic Engineering (IBGE), Rahman Agricultural University, Gazipur, Bangladesh

eMail: mz_surovy@bsmrau.edu.bd

Musrat Zahan Surovy is an assistant professor at the Institute of Biotechnology and Genetic Engineering of Rahman Agricultural University (RAU, formerly Bangabandhu Sheikh Mujibur Rahman Agricultural University), Bangladesh. She graduated in agriculture from RAU in 2011. She earned her master's in biotechnology in 2014 from the same university. Currently, she is a PhD candidate in the Division of Plant Pathology and Crop Protection at Georg-August-Universität Göttingen, Germany. Her research interests are probiotic bacteria, plant-pathogen interactions, fungal biology, epidemiology, and biological control of plant pathogens. She published 17 articles in peer-reviewed journals and four book chapters focusing on major agricultural plant pathogens. She is a pioneer researcher in Bangladesh to identify probiotic bacteria that significantly suppress many phytopathogens, and she has the experience to investigate many projects related to epidemiology and biological control of phytopathogens. She received a good number of awards, including a 2019 German Academy Exchange Service Scholarship for conducting her PhD on wheat blast research.

East and Southeast Asia and the Pacific

TWAS Regional Partner for East and Southeast Asia and the Pacific (TWAS-SAPREP) at the Chinese Academy of Sciences in Beijing, China

Mary Donnabelle Balela

Department of Mining, Metallurgical and Materials Engineering, University of the Philippines, Diliman, Quezon City, the Philippines

eMail: mlbalela1@up.edu.ph

Mary Donnabelle Balela is a full professor at the Department of Mining, Metallurgical and Materials Engineering at the University of the Philippines (UP). She graduated with a bachelor's degree in metallurgical engineering from UP in 2004, a master's degree in materials engineering from the Universiti Sains Malaysia in 2008, and a PhD in materials science and engineering from Kyoto University in 2011. She leads the Sustainable Electronic Materials Group, which develops low-cost advanced functional materials for applications in electronics, the environment, and energy. She recently received the 2020 Encouragement Award, which is part of the Hitachi Global Foundation Asia Innovation Award, for her work on developing customizable sorbents based on kapok fibers. She is the runner-up in the 2019 ASEAN-US (Association of Southeast Asian Nations-Government of the United States of America) Science Prize for Women, and 2019 DOST-NSTW (Department of Science and Technology — National Science, Technology, and Innovation Week) Outstanding Research and Development Awardee for Applied Research for her work on silver-based flexible electronic devices.

Khin Wee Lai

Biomedical Engineering Department, Faculty of Engineering, University Malaya, Kuala Lumpur, Malaysia

eMail: lai.khinwee@um.edu.my

Khin Wee Lai received his PhD in biomedical engineering from the Malaysia University of Technology and Ilmenau Technical University in Germany through the German Academic Exchange Service PhD Sandwich Programme. He is currently an associate professor in the Department of Biomedical Engineering, Faculty of Engineering, University Malaya, and chief technology officer of the company BioSight Sendirian Berhad. Lai was awarded a fellowship by the Association of Commonwealth Universities (United Kingdom of Great Britain and Northern Ireland) in 2021 for his research on recovered COVID-19 patients' risk of hospital readmission. Later, Lai was conferred the Young Engineer Award 2021 by the Institution of Engineers, Malaysia. The same year, the Institute of Electrical and Electronics Engineers (IEEE) Engineering in Medicine and Biology Society (EMBS) Malaysia Chapter awarded Lai with the IEEE-EMBS Early Career Achievement Award 2021. Lai was elected as Fellow of Engineers Australia and Fellow of Institute of Engineers Malaysia. In

2022, Lai was bestowed the Board of Engineers Malaysia Most Prominent Young Engineering Leader Award by the Prime Minister of Malaysia.

Shen Ke

Fudan University, Shanghai, China

eMail: shenke@fudan.edu.cn

Shen Ke is professor of demography and deputy dean of the School of Social Development and Public Policy at Fudan University in China. She received bachelor's degrees in literature and economics from Peking University, and her PhD in economics also from Peking University in China. Her research interests include population aging, intergenerational inequality, technological innovation and family change. She has introduced and extended the National Transfer Accounts method in the study of population aging in China, and her relevant research deepens the understanding of economic potential and fiscal sustainability in fast-aging societies. Her publications have appeared in leading journals, such as *Population and Development Review*, *Demography*, *Demographic Research*, and the *Journal of Economics of Ageing*. She has received numerous awards for research and teaching, including Distinguished Young Scholar awarded by Chinese Government (2022), Distinguished Young Scholar awarded by Shanghai Municipal Government (2020), Outstanding Academic Achievement Award by the Ministry of Education (2024), and Flagship English-Taught Course awarded by the Ministry of Education (2017).

Latin America and the Caribbean

TWAS Regional Partner for Latin America and the Caribbean (TWAS-LACREP) at the Brazilian Academy of Sciences in Rio de Janeiro, Brazil

Erika Berenguer

Environment Change Institute, School of Geography, University of Oxford, Oxford, United Kingdom of Great Britain and Northern Ireland

eMail: erika.berenguer@ouce.ox.ac.uk

Paula Gabriela Echeverría-Galindo

Institute of Organic Biogeochemistry in Geo-Systems (OBG), RWTH Aachen University, Aachen, Germany

eMail: paula.echeverria-galindo@emr.rwth-aachen.de, paulaegalindo@gmail.com

Paula Echeverría-Galindo is a scientific researcher at the Institute of Organic Biogeochemistry in Geo-Systems (OBG), RWTH Aachen University, Germany. She earned a magna cum laude recognition for her PhD degree in natural sciences from Technical University of Braunschweig, Germany. Echeverría-Galindo holds a bachelor's degree in biology from the University of San Carlos of Guatemala, and a master's degree in Limnology and Marine Sciences from the National Autonomous University of Mexico. She has over 10 years of experience as a teacher of biology, geosciences, and climate change. Her research interests are in climate change and its impact on aquatic communities. She is focusing on modern ecology and paleolimnological reconstructions, using multiple aquatic microorganisms, sedimentology and geochemical approaches to understand how the systems adapt and respond to global warming. Her research work has been carried out in the neotropics and on the Tibetan Plateau. She was awarded with a grant to expand her research in the neotropics examining paleolimnological data from volcanic lakes in Guatemala. She has been involved in activities related to gender equality and scientific outreach.

Yuslín González Abreu

Department of Applied Physics, Faculty of Physics, Havana University, San Lázaro y L, Havana, Cuba

eMail: yusling@fisica.uh.cu

Yuslín González Abreu is a professor and second head of the Department of Applied Physics at the Faculty of Physics, University of Havana, Cuba. There, she teaches general and applied physics. She holds bachelor's, master's, and PhD degree in physics from the University of Havana. She had two postdoctoral positions at the University of Ouro Preto,

Minas Gerais, and the Paulista State University of São Paulo, Brazil. Her research interests are in ferroelectric and multiferroic materials, phase transitions, relaxors materials, dielectric relaxation, electrical conductivity, pyroelectricity, piezoelectricity. In recognition of her contributions to science and development, Yuslín was a winner of the 2018 TWAS Prize for Young Scientists in Developing Countries. In 2010 and 2014, she also received the Academy of Science of Cuba Awards, and five Awards for Scientific Research from the University of Havana, from 2010 to 2018. She is a young associate of the Academy of Science of Cuba.

Elías Humberto Peraza Castaneda

Ministry of Education, Science and Technology, San Salvador, El Salvador

eMail: elias.peraza@mined.gob.sv, Eliasperaza_1900@hotmail.com

Elías Peraza has been the Technological and Educational Prospective Manager of Salvadoran Ministry of Education, Science and Technology, since 2022. He conducts studies in science, technology and innovation (STI), prioritizing those of interest to the education system, including emerging technologies. He graduated in business administration from the University of El Salvador in 2010, and earned a master's degree in business management for innovation and internationalization from the University of Basque Country, Spain, in 2011. In 2019, Peraza received a PhD in economics with cum laude distinction from Universities of Burgos, Valladolid and Salamanca, Spain. He studied both his master's and doctorate thanks to scholarships from the European Union. Peraza has published academic and diffusion articles about systems of innovation, STI policies, business innovation behaviour, and economic policy. He has participated in more than 15 international conferences, the most recent: Globelics 2023 (virtual), and Nobel Prize Dialogue Rio and São Paulo 2024 (in person). As for awards, he received the Central American Rubén Darío Award for Academic Excellence in 2009.

Johan David Reyes Chávez

University College Cork, Cork, Ireland

eMail: johan.reyes.chavez@umail.ucc.ie

Johan David Reyes Chavez is a Honduran PhD student at University College Cork in Ireland and a climate and innovation officer at Fundación Ayuda en Acción, Honduras. His research interests are in conservation management, plant biodiversity, biogeographical patterns, climate change, and public policy. In recognition of his contributions to the Honduran biodiversity and climate change studies, he was awarded the 2022 Ten Outstanding Young Persons award by the Junior Chamber International — Honduras in the category of scientific advancements and technology. An Oxford and Cambridge journal author, he has been published in many journals in his field, including *Journal of Biogeography*, *Journal of Tropical Ecology*, *Plant Ecology*, *Phytotaxa* and *Botanical Journal of the Linnean Society*.

Sub-Saharan Africa

TWAS Regional Partner for Sub-Saharan Africa (TWAS-SAREP) at the Academy of Science of South Africa in Pretoria, South Africa

Janet Adeyinka Adebo

University of Johannesburg, Johannesburg, South Africa

eMail: janeta@uj.ac.za, janetaadex@gmail.com

Janet Adebo (née Adebiyi) obtained her master's and doctoral degrees in food technology from the University of Johannesburg, South Africa. Both of her postgraduate degrees were fully sponsored by the National Research Foundation of South Africa and the University of Johannesburg Global Excellence and Stature Fellowships. She is currently a researcher at the University of Johannesburg, where she works on nutrition, diet transition, product development, and studying the influence of food processing on overall food composition. She has published in high impact factor publications in her field. In keeping abreast with the developments and innovations in food science and technology, she is an active member of a number of scientific organizations and a recipient of awards from the Society of Chemical Industry, Applied Microbiology International, and Golden Key International. She is a regular reviewer for different high impact factor scientific journals.

Oluwafemi Ayodeji Adebo

Centre for Innovative Food Research (CIFR), University of Johannesburg, South Africa

eMail: oaadebo@uj.ac.za, oluwafemiadebo@gmail.com, oaadebo@gmail.com

Oluwafemi Ayodeji Adebo is vice-dean for global engagement and professor of food technology at the University of Johannesburg (UJ), South Africa, where he also directs the Centre for Innovative Food Research (CIFR). His research focuses on sustainable food processing, fermentation, food metabolomics, and 3D food printing to enhance nutrition, food security, and health. Listed among the World's Top 2% Scientists by Stanford University, he has published over 140 journal articles, 29 book chapters, and 2 books (with other books titles in progress), and holds a patent on 3D food printing. Adebo has secured over 20 million South African rand in research funding and received numerous awards, including the Institute of Food Technologists Emerging Leader Award, National Research Foundation Emerging Researcher of the Year, and UJ's Vice Chancellor's Distinguished Award. A member of the South African Young Academy of Science, he serves on the editorial board of leading journals, has delivered keynote talks globally, and actively drives strategic partnerships that advance science and innovation worldwide.

Peter Chika Ejikeugwu

Enugu State University of Science and Technology (ESUT), Agbani, Nigeria

eMail: chika.ejikeugwu@esut.edu.ng, ejikeugwu_chika@yahoo.com

Chika Ejikeugwu is a Fellow of the Alexander von Humboldt-Stiftung (AvH) in Germany and currently serves as a Senior Research Fellow at the Helmholtz Centre for Environmental Research, Leipzig, Germany. He is also the founder of the online microbiology education platform www.MicrobiologyClass.net, dedicated to advancing microbiology learning and research. He previously held a German Academic Exchange Service Postdoctoral Fellowship at the Federal Institute for Materials Research and Testing (BAM), Berlin, Germany (2021). He is currently a COFUND Fellow under the Marie Skłodowska-Curie Actions, Horizon Europe, funded by the European Union. His first postdoctoral training was on HIV-1 at Kyoto University, Japan (2018), supported by the Matsumae International Foundation Postdoctoral Fellowship in Tokyo. He earned his PhD in pharmaceutical microbiology and biotechnology from Nnamdi Azikiwe University, Nigeria. In addition to his international research engagements, Ejikeugwu is a senior lecturer at Enugu State University of Science and Technology, Nigeria, where he mentors undergraduate and postgraduate students in microbiology. His research interests span antimicrobial resistance and One Health.

Catherine Tamale Ndagire

Department of Food Technology and Nutrition, Makerere University, Kampala, Uganda

eMail: catherinendagire@gmail.com

Catherine Tamale Ndagire serves as a senior lecturer in the Faculty of Agricultural Sciences of Uganda Christian University, Mukono. There, she instructs courses including undergraduate-level agricultural sciences and entrepreneurship course, undergraduate-level food science and technology courses, and master's-level human nutrition and dietetics course. Ndagire graduated with a bachelor's in food science and technology in 2010 from Makerere University (Uganda), and later in 2014, she obtained a Master of Science in applied human nutrition from the same university. In January 2019, she obtained a doctorate of philosophy in human nutrition, also from Makerere University. She has developed and optimized local and industrial processes for producing nutrient-dense foods from locally available products to alleviate malnutrition among the vulnerable populations in Uganda. She has also won the award for Outstanding Project of the Uganda Nutrition Fellowship for 2013–2014.

Tesfay Gebremariam Tesfahannes

Arba Minch University, Arba Minch, Ethiopia

*eMail: tesfayg2016@gmail.com, tesfaye.gbremariam@amu.edu.et,
tesfaye.gbremariam@amu.edu.et*

Tesfay Gebremariam Tesfahannes is an associate professor and PhD programme coordinator at the Department of Physics, Faculty of Natural Sciences, Arba Minch University, Ethiopia, where he teaches quantum states of light, advanced quantum optics, quantum information, and more. He is also the community engagement coordinator for the same university. In 2018, he earned a PhD degree in theoretical physics from Dalian University of Technology in China. His research interests are in quantum optomechanics—the quantum features of optomechanical systems, including quantum entanglement and continuous-variable quantum information processing. In February 2020, he was awarded a letter of recognition from the Winter College on Optics: Quantum Photonics and Information at the Abdus Salam International Centre for Theoretical Physics in Italy. In 2021, he won a letter of recognition from the Ethiopian Physical Society Annual Conference. In 2022, he received a letter of appreciation from the Ethiopian Physics Society for his participation in the North America Summer School Programme.