

Tim AHERN
Director of Data Services
Incorporated Research Institutions for Seismology (IRIS)
United States of America



Tim Ahern is Director of Data Services for the Incorporated Research Institutions for Seismology (IRIS). The IRIS Data Management Center (DMC) is the largest seismic data centre in the world, managing data from both passive and active source deployments. Ahern has led the IRIS data effort since its beginning in 1987. Based in Washington, United States of America, the DMC manages nearly half a petabyte of data and distributes nearly one petabyte of data to the research and monitoring communities on an annual basis.

As part of the IRIS Data Services effort, Ahern organizes international training workshops in Africa, the Middle East, Latin America and South East Asia, where over the past decade seismic network operators have shared information related to seismic station installation, data exchange techniques and related topics.

Ahern is an active member of the International Federation of Digital Seismograph Networks (FDSN) and served as its Secretary from 1995 to 2007. He has also served as the Chair of FDSN Working Group III, on Products, Tools and Services, from 2007 to the present. With 91 institutions in 67 countries around the world, the FDSN plays a key role in the coordination of seismic station siting, standards for data and metadata exchange, as well as product generation and standardized services.

Atalay AYELE
Associate Professor, Director of the Institute of Geophysics, Space Science and
Astronomy (IGSSA)
Addis Ababa University
Ethiopia



Atalay Ayele is Associate Professor and Director of the Institute of Geophysics, Space Science and Astronomy (IGSSA) at Addis Ababa University. He obtained his BSc in Physics from Addis Ababa University in 1990 and obtained his PhD in Geophysics (Seismology) from Uppsala University, Sweden, in 1998.

Ayele is a senior seismologist and currently serves as Head of the Seismology Unit and runs the national seismic network of Ethiopia. He served as President of the African Seismological Commission for four years and was sub-Saharan Africa region coordinator for the Global Earthquake Modelling Foundation for two years. He has held several positions in the Eastern and Southern Africa Regional Seismological Working Group (ESARSWG) network and was mainly involved in training seismic data analysts and technicians in the region. He has authored and co-authored more than 60 research articles in internationally reputable journals.

Elisabeth BLANC
Research Director
French Alternative Energies and Atomic Energy Commission (CEA)
France



Elisabeth Blanc is the Research Director at the French Alternative Energies and Atomic Energy Commission (CEA) where she has worked since 1978.

Between 1994 and 1996, she was a member of the infrasound expert group mandated to define the International Monitoring System (IMS) in the Comprehensive Nuclear-Test-Ban Treaty. Her area of expertise includes the study of natural and man-made disturbances and the effects of powerful atmospheric explosions. Her recent work focuses on the development of scientific studies using the IMS infrasound network.

Blanc leads the Atmospheric Dynamics Research InfraStructure (ARISE) project in Europe. The project is funded by the Horizon 2020 programme (2012-2018) of the European Union and dedicated to providing a three dimensional description of the atmospheric disturbances in broad scales of time and space using the IMS infrasound network and complementary observation networks. Examples of applications include remote volcano monitoring and weather and climate research.

Aristide Aly BOYARM
Co-Founder, Managing Director
AfricaCRM&SI
Burkina Faso



Aristide Aly Boyarm is the co-founder of AfricaCRM&SI and has served as its Managing Director since 2011. AfricaCRM&SI is a consulting and training firm specializing in information technology, IS strategy and digital transformation. He is also a lecturer in Information Technology Project Management at the Higher National School for Computer Science in Bobo Dioulasso, Burkina Faso. Boyarm completed a PhD in Modelling and Simulation of Complex Systems at Aix Marseille University, France, in 1999. He received an MBA from the Sorbonne Business School (IAE) in 2008.

Boyarm is also the founder of JuniorCodAfrik, a programme that introduces young people in Burkina Faso to computer, robot and drone programming. Prior to co-founding AfricaCRM&SI, he was a consulting manager at CGI/LOGICA in France. He has also contributed to the implementation of enterprise resource planning insurance solutions in business transformation dynamics, business line processes and project management.

Boyarm is the author of the publication *African Digital Companies*, which was published by Les Editions Providence (CEPRODIF) in 2018.

Li HUA
Professor, Chairman of the Science and Technology Committee
Chinese Academy of Engineering Physics
China



Li Hua is a Professor of Applied Physics and Chairman of the Science and Technology Committee of the Chinese Academy of Engineering Physics. He is the former Director of the Institute of Applied Physics and Computational Mathematics. He was a council member of the Chinese Nuclear Society, Executive Deputy Chair of the Council of the Chinese Computational Physics Society and Chair of the Chinese Physical Gas Dynamics Committee under the Chinese Aerodynamics Society. He now serves as the Deputy Chair of the Nuclear Fusion and Plasma Physics Society.

From 1994 to 1996, Hua served as a senior expert in the Chinese delegation for the negotiations of the Comprehensive Nuclear-Test-Ban Treaty in Geneva. Since then he has taken part in a number of meetings of Working Group B of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) as well as other CTBTO activities. As the Director of the Program for Science and National Security Studies (PSNSS) in China for the last 15 years, he has co-sponsored and co-chaired the PIIC Beijing Seminar on International Security series in cooperation with a number of domestic and international institutions to promote a strong correlation between science and security studies.

Alik ISMAIL-ZADEH
Senior Scientist
Karlsruhe Institute of Technology (KIT) Institutes of Applied Geosciences
Germany



Alik Ismail-Zadeh is a Senior Scientist at the Karlsruhe Institute of Technology (KIT) Institute of Applied Geosciences in Germany. He is also Chief Scientist, Research Professor and Head of the Research Group of the Russian Academy of Science's Institute of Earthquake Prediction Theory and Mathematical Geophysics in Moscow, Russian Federation. He has been a visiting scholar and professor at several academic institutions, including the universities of Cambridge (United Kingdom), Tokyo (Japan), California (United States of America) and the Institut de Physique du Globe de Paris (France). His scientific interests cover the dynamics of the lithosphere and the upper mantle and its surface manifestations including seismicity, seismic and volcanic lava hazards, and disaster risk. He is a principal author and co-author of over 120 peer reviewed papers and 7 books.

Ismail-Zadeh has served as Secretary of the International Science Council (ISC) and Secretary-General of the International Union of Geodesy and Geophysics (IUGG), Founding President of the Natural Hazards Focus Group of the American Geophysical Union (AGU) and Founding Vice-Chair of the IUGG Commission on Geophysical Risk and Sustainability. He has also chaired or been an active member of a number of committees and commissions of international and intergovernmental organizations, including the European Geosciences Union (EGU), Euroscience, the Group on Earth Observations (GEO) and the International Geoscience Programme of the United Nations Educational, Scientific and Cultural Organization. Ismail-Zadeh is a member of Academia Europaea, a Fellow of the Royal Astronomical Society of the United Kingdom, and the recipient of several awards, including from the Humboldt Foundation, the Royal Swedish Academy of Sciences, the President of the Russian Federation and the Royal Society of the United Kingdom.

Gihan KAMEL
Infrared Beamline Scientist
Synchrotron-Light for Experimental Science and Applications in the Middle East
(SESAME)
Jordan



Gihan Kamel is an infrared beamline scientist at Synchrotron-Light for Experimental Science and Applications in the Middle East (SESAME) laboratory in Jordan. She is currently on leave from the Physics Department, Faculty of Science, at Helwan University in Egypt, where she is also a lecturer of Physics.

She obtained her PhD in 2011 from the Sapienza University of Rome, Italy. She collaborates on various national and international research projects utilizing advanced and complementary approaches in life and materials sciences. Her activities include organizing different scientific events to increase awareness of certain topics that link science to society as well as industry.

Yoshiyuki KANEDA
Designated Professor, Executive Advisor of the President of Kagawa University
Vice Director, Institute of Education, Research and Regional Cooperation for Crisis
Management Shikoku (IECMS), Kagawa University
Japan



Yoshiyuki Kaneda has been Designated Professor, Executive Advisor of the President of Kagawa University and the Vice Director of the Institute of Education, Research and Regional Cooperation for Crisis Management Shikoku (IECMS) at Kagawa University, Japan, since April 2016. His expertise is in seismology and disaster mitigation science.

He leads two large projects related to earthquakes and tsunamis in Japan. One of the projects deals with developing an ocean floor network system in the Nankai Trough, located south of the Nankaido region of Honshu Island in Japan, through the Dense Ocean Floor Network System for Earthquakes and Tsunamis (DONET). The other project is concerned with seismic linkage around the Nankai Trough. Kaneda also conducts high performance computer simulations to predict the compound earthquake and tsunami hazards that were seen in the 2011 Tohoku disaster. In addition, he led an international earthquake research project in cooperation with Turkey from 2012 to 2018. The project used simulations to visualize sea bottom observations and other research results and aimed to contribute to earthquake and tsunami disaster mitigation in Turkey.

Kaneda worked at the Disaster Mitigation Research Center of Nagoya University (DMRC) from 2014 to 2016 and the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) from 1997 to 2014. Prior to these posts, he was a researcher in physics and geophysical exploration at the Institute of Japan National Oil Corporation.

Alexey A. MALOVICHKO
Scientific Leader
Geophysical Survey of the Russian Academy of Sciences (GS RAS)
Russian Federation



Alexey Malovichko is Scientific Leader of the Geophysical Survey of the Russian Academy of Sciences (GS RAS), a scientific and technical organization responsible for seismic monitoring of the territory of Russia and operation of its tsunami warning system. Malovichko was Director of GS RAS from 2005 to 2018. Under his leadership, substantial development and upgrading of the federal seismological observation system was carried out. GS RAS installed and certified 10 auxiliary seismic stations of the International Monitoring System seismic network in the Russian Federation.

Malovichko has more than 30 years of experience in scientific activity connected with monitoring of natural and induced seismicity, investigation of the interior structure of the earth, analysis of the fine structure of seismic noises as well as different practical applications of these data. He is a co-editor and one of the authors of the book *Explosions and Earthquakes on the Territory of the European Part of Russia*.

Malovichko is a Corresponding Member of the Russian Academy of Sciences.

Mahlet N. MESFIN
Deputy Director
Center for Science Diplomacy, American Association for the Advancement of Science
(AAAS)
United States of America



Mahlet N. Mesfin is the Deputy Director of the Center for Science Diplomacy of the American Association for the Advancement of Science (AAAS). She serves as a key adviser on areas related to science diplomacy and is responsible for the planning and implementation of science diplomacy initiatives and projects. She is also Executive Editor of the quarterly journal *Science & Diplomacy*.

Prior to joining AAAS, Mesfin was the Assistant Director for International Science and Technology (S&T) at the White House Office of Science and Technology Policy (OSTP). She led the strategic planning, coordination and execution of science and technology focused engagements under the responsibility of the Science Adviser to the US President, including those with China, Japan, India, the Republic of Korea, Brazil and the G7 Science Ministers. She championed science and technology as an element of the broader foreign policy agenda of the US Government. In addition, she was a science and technology policy fellow in the Basic Research Office at the US Department of Defense and the US National Academies of Sciences, Engineering and Medicine.

Mesfin received a PhD in Bioengineering from the University of Pennsylvania and a MSE in Biomedical Engineering and BSE in Chemical Engineering from the University of Michigan. She is a Term Member of the Council on Foreign Relations.

Al-Sharif NASSER BIN NASSER
Managing Director
Middle East Scientific Institute for Security
Jordan



Al-Sharif Nasser bin Nasser is the Managing Director of the Middle East Scientific Institute for Security. In this position, he focuses on addressing chemical, biological, radiological and nuclear (CBRN) risks across the region. He is also Head of the Middle East Regional Secretariat, the first of eight secretariats to be established globally under the European Union's Centres of Excellence initiative on CBRN issues.

Previously, Nasser worked in the office of His Majesty King Abdullah II of Jordan, where he last served as Senior Analyst in the Foreign Affairs Directorate. During that time, he managed several bilateral and thematic files and led analytical studies on Jordan's regional and international relations.

Nasser also served as Chairman of a leading insurance company in Jordan and currently serves as the Vice-Chairman of a national commission offering support to injured and disabled veterans as well as the President of a charity that offers therapeutic riding services to children with special needs. He received his master's degree in Near Eastern Studies from Princeton University, United States of America, and his undergraduate degree in Environmental Science and Policy and Business Management from Clark University, United States of America. Nasser has been Chair of the Princeton Alumni Committee in Jordan since 2004 and is a mentor for Princeton Alumni Committees in the Middle East.

In 2015, Nasser was selected by the World Economic Forum as a Young Global Leader along with 187 candidates globally. In 2018, he became a non-resident scholar of the Washington, D.C. based Middle East Institute, where he occasionally writes about regional security issues.

Jean-Paul NGOME ABIAGA
Assistant Programme Specialist
International Basic Sciences Programme of UNESCO
France



Jean-Paul Ngome Abiaga joined the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2011 as Assistant Programme Specialist for Mathematics and Physics within the International Basic Sciences Programme (IBSP). Since 2013, he has also served as Deputy Executive Secretary of the IBSP and is responsible for physics, mathematics, science education and several other basic sciences activities. In this capacity, he has participated in the establishment and coordination of UNESCO global initiatives such as the Mathematics of Planet Earth, the International Year of Crystallography 2014, and the International Year of Light and Light-based Technologies 2015. Ngome Abiaga has a PhD in Mathematical Physics from the University of Tours, France, and also is graduate in physics and mathematics. Prior to joining UNESCO, he was a researcher and lecturer at the Laboratoire de mathématique et physique théorique at the Centre national de la recherche scientifique of the University of Tours.

Mobolaji Oladoyin ODUBANJO
Executive Secretary
Nigerian Academy of Science (NAS)
Nigeria



Oladoyin Odubanjo is Executive Secretary of the Nigerian Academy of Science (NAS) and Chairman of the African Steering Committee of the International Network for Government Science Advice (INGSA). He is also Chairman of the Association of Public Health Physicians of Nigeria (Lagos Chapter) and an Adviser to the Centre for Palliative Care Nigeria (CPCN). He also serves on the board of the West African office of The Conversation Africa.

Before working for the NAS, Odubanjo worked as a physician for the Nigerian Government at public healthcare facilities in both rural and urban areas and was in charge of a general hospital with additional supervision of two primary healthcare facilities. Odubanjo also served on the board of some family owned businesses, which included a plastic factory and a printing press. His experience also includes voluntary services for non-profit organizations in Nigeria and the United Kingdom.

As part of a newly recruited team, Odubanjo was instrumental to the successful transition of the NAS from a largely honorific organization to one that provides evidence-informed advice to the Government and other stakeholders. In recent years, he has collaborated with African academies and the Network of African Science Academies (NASAC) on diverse projects aimed at informing policymakers. He has also been a facilitator at training workshops for staff of African science academies on bridging the evidence to policy gap.

Paul Granston RICHARDS
Special Research Scientist and Professor Emeritus of Natural Sciences
Lamont-Doherty Earth Observatory, Columbia University
United States of America



Paul Richards has taught at Columbia University, United States of America, since 1971. He has conducted research on the theory of seismic wave propagation, the physics of earthquakes, the interior structure of the earth and the application of seismological methods to explosion and earthquake monitoring. He is a co-author of the advanced textbook *Quantitative Seismology* and co-discoverer of evidence for super-rotation of the earth's inner core. He has been Professor Emeritus of Natural Sciences since 2008 and is currently Special Research Scientist at the Lamont-Doherty Earth Observatory at Columbia University.

Richards has held Guggenheim and MacArthur Fellowships and has served terms as a visiting scholar at the US Arms Control and Disarmament Agency. He also participated in the negotiations of the Comprehensive Nuclear-Test-Ban Treaty in Geneva and is a Fellow of the American Academy of Arts and Sciences. He received a medal from the Seismological Society of America in 2009 for outstanding contributions in seismology.

Anders RINGBOM
Research Director
Swedish Defence Research Agency (FOI)
Sweden



Anders Ringbom is a Research Director in the field of nuclear verification techniques at the Swedish Defence Research Agency (FOI). He is a Technical Adviser to the Swedish Government and a representative of Sweden to Working Group B of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO).

Ringbom was the former manager of the Swedish National Data Centre (NDC) for Comprehensive Nuclear-Test-Ban Treaty monitoring. He develops equipment, analysis techniques and software for radionuclide detection used by the CTBTO as well as by various national institutions. He is the developer of the SAUNA noble gas system, which is used worldwide for monitoring nuclear tests.

Eugenio Polanco RIVERA
Seismology Researcher, Director of the National Seismology Center
Autonomous University of Santo Domingo (UASD)
Dominican Republic



Eugenio Polanco Rivera is a seismology researcher and has been Director of the National Seismology Center at the Autonomous University of Santo Domingo (UASD) since 2008, with which he collaborated from 1985 to 2002. He played a key role in the development of the National Seismic and Accelerographic Network. He has been a Professor of Physics at UASD since 1996 and was Director of the Bonao Center at the university from 2002 to 2008.

He has been a member of the National Emergency Commission of the Dominican Republic since 2008, through which he has contributed to the preparation of national plans for risk management and seismic risk reduction.

Polanco Rivera has been associated with the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) since 2008 and benefitted from training programmes and technical assistance offered by the CTBTO to the States Signatories of the Treaty. From 2011 to 2014, he participated in meetings of Working Group B as a national expert and member of the delegation of the Dominican Republic to the CTBTO.

Ricardo SAGARZAZU
Vice President for Strategic Development
INVAP
Argentina



Ricardo Sagarzazu is the Vice President for Strategic Development at INVAP in Argentina. INVAP develops state of the art technology in different industrial, scientific and applied research fields. Sagarzazu joined INVAP in 1985 and has worked on different technology development projects, including radiation and particle detectors for space applications such as the hard X ray spectrometer, a high energy X ray detector for space application, and the multiwire detector for high energy ions at the tandem accelerator for the Argentine Atomic Energy Commission.

After the creation of the Space Division at INVAP, he was responsible for managing the Villa Golf Facility, where the first three satellite platforms of INVAP and their payloads were integrated, tested and delivered for launch.

Prior to this, Sagarzazu worked at the Institute for Scientific and Technological Research of the Armed Forces (CITEFA) in Buenos Aires, where he was one of the founders of the Microelectronics Laboratory, a group dedicated to the development of hybrid and integrated circuit technology. He also directed the Research and Development Laboratory at CITEFA. He was part of the team that set up the first pilot plant for microelectronic manufacturing in Argentina. He is also a member of the Administrative Counsel of the National Nanotechnology Foundation in Argentina.

Francois SCHINDELE
Expert, Seismology and Tsunami Warning
French Alternative Energies and Atomic Energy Commission (CEA)
France



François Schindelé is an international expert on seismology and tsunami warning at the French Alternative Energies and Atomic Energy Commission (CEA), France, where he has worked since 1984.

Between 1993 and 1996, he was Scientist in Charge of the Centre Polynésien de Prévention des Tsunamis (CPPT – Tahiti). He has been the national representative of France to the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (United Nations Educational, Scientific and Cultural Organization (UNESCO) ICG/PTWS) since 1993 and served as its Chair from 1999 to 2005.

Since 2009, he has been Head and Coordinator of the French Tsunami Warning Center (CENALT). He was Chair of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, the Mediterranean and connected seas from 2009 to 2013. His main research activities focus on tsunami warning systems and tsunami and earthquake monitoring.

He has implemented tsunami warning systems in various countries and provided training to scientists, operators and managers at tsunami warning centres. He has organized more than 10 symposiums and workshops on tsunami hazards and tsunami warning in the framework of the tsunami warning systems of the Intergovernmental Oceanographic Commission of UNESCO. He has also participated in various projects on tsunami hazards and warning funded by France or by the European Commission and co-chaired Working packages.

From 1998 to 2002, he led the surveying and implementation of various seismic and hydroacoustic stations of the French International Monitoring System stations.

Jean SCIARE
Director
Energy, Environment and Water Research Center (EEWRC), Cyprus Institute
Cyprus



Jean Sciare is Director of the Energy, Environment and Water Research Center (EEWRC) of the Cyprus Institute, a non-profit research and educational institution with a scientific and technological focus.

His main scientific expertise covers the experimental characterization of atmospheric aerosols and issues related to their impacts on air quality, health and climate. More recently, Sciare has led the technical development of a new generation of unmanned aerial vehicles to provide cost-effective solutions for atmospheric profiling and mapping.

This unparalleled fleet of research drones is currently contributing to long term atmospheric observations in Cyprus, a European Union Member State in the Middle East that is at the crossroads of long range transported air masses from three continents (Europe, Africa and Asia). These monitoring activities are part of several international research networks (such as the Global Atmosphere Watch of the World Meteorological Organization) and represent the contribution of Cyprus to the European Research Infrastructure for the Observation of Aerosols, Clouds and Trace Gases (ACTRIS).

Glenn E. SJODEN
Chief Scientist
Air Force Technical Applications Center (AFTAC)
United States of America



Glenn Sjoden is Chief Scientist at the Air Force Technical Applications Center (AFTAC), located at Patrick Air Force Base in Florida, United States of America. AFTAC operates and maintains the US Atomic Energy Detection System, a suite of space based and subsurface sensors, which monitors foreign compliance with the treaties limiting nuclear testing. He is the principal adviser on scientific and technical matters relating to AFTAC's mission and to its relationships with national and international organizations. His experience spans a broad range of science and engineering applications. Sjoden served in numerous capacities, including Technical Director, Nuclear Research Officer, Associate Professor and Lead Design Engineer. In 2004, he retired from the US Air Force as Lieutenant Colonel after 20 years of active service.

From 2010 to 2014, Sjoden served as a tenured professor of Nuclear and Radiological Engineering in the George W. Woodruff School of Mechanical Engineering at the Georgia Institute of Technology, United States of America. He has also served as a Senior Technical Adviser to the Department of Energy, Department of Homeland Security, several US national laboratories and various agencies of the US Government. He is an expert in high performance computing and deterministic and Monte Carlo radiation transport and is the principal developer of the PENTRAN 3-D parallel deterministic radiation transport code. His research interests span reactor physics, special nuclear material detection, treaty monitoring technologies, nuclear power generation, non-destructive testing, nuclear medicine/medical physics simulations and algorithm development.

Zeinabou Mindaoudou SOULEY
Special Advisor to the President of the Republic of Niger
Chair of the High Authority for Atomic Energy of Niger
Vice-Chairperson of Working Group B
Niger



Zeinabou Mindaoudou Souley has been the Special Advisor to the President of the Republic of Niger in the nuclear field since 2012. She has served as the Chair of the High Authority for Atomic Energy of Niger since 2014 and as the Vice-Chairperson of Working Group B of the Preparatory Commission for the Comprehensive-Nuclear-Test-Ban Treaty since 2016. She has been a lecturer in electronics and detectors for master's degree students at the Faculty of Sciences and Techniques at Abdou Moumouni University of Niamey-Niger-Niamey since 2012.

Souley holds a PhD in Applied Physics from the University of Paris 13, France, an Advanced Studies diploma in Optical and Microwave Communications from the University of Limoges, France, and an Engineering degree in Electronics Instrumentation from the University Ferhat Abbas Setif, Algeria.

Previously, Souley headed the Department of Nuclear Physics and Chemistry of the Radioisotopes Institute and the Nuclear Instrumentation and Computer Science Laboratory of the Nuclear Physics and Chemistry Department of the Radioisotopes Institute.

Christopher TIMPERLEY

Chair of Scientific Advisory Board (SAB), Organisation for the Prohibition of Chemical Weapons (OPCW)

The Netherlands

**Technical Fellow for Chemistry, Defence Science and Technology Laboratory (DSTL)
United Kingdom**



Christopher Timperley was Chair of the Scientific Advisory Board (SAB) of the Organisation for the Prohibition of Chemical Weapons (OPCW) from 2015 to 2018 and a contributor to its Temporary Working Groups on the Convergence of Chemistry and Biology, Education and Outreach, Verification, and Investigative Science and Technology.

Timperley is a Technical Fellow for Chemistry at the Defence Science and Technology Laboratory (DSTL) in Porton Down, United Kingdom, where he has worked for 23 years. He conducts research into improved means of chemical defence in support of the strategic goals of the OPCW.

John R. WALKER
Head, Arms Control and Disarmament Research Unit (ACDRU)
Foreign and Commonwealth Office
United Kingdom



John R. Walker is Head of the Arms Control and Disarmament Research Unit (ACDRU) at the Foreign and Commonwealth Office, United Kingdom, where he has worked since 1985. He currently focuses on the Chemical Weapons Convention (CWC), the Biological and Toxin Weapons Convention (BTWC), the United Nations Secretary-General's Mechanism, the Comprehensive Nuclear-Test-Ban Treaty and nuclear weapons disarmament verification.

Walker has been a member of the delegation of the United Kingdom at seven BTWC Review Conferences, the three CWC Review Conferences, the BTWC Ad Hoc Group (1995-2001), BTWC intersessional meetings (2003-2017), CWC Preparatory Commission Expert Groups (1993-1997) and meetings of Working Group B of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization on on-site inspection (OSI) issues since 2002. He was head of the inspected State Party team during the Integrated Field Exercise in 2008 and of the external evaluation team for the three OSI build-up exercises leading up to the Integrated Field Exercise in 2014 as well as for the 2014 Integrated Field Exercise itself. He has participated in various roles in some 70 OSI exercises related to chemical and biological weapons, nuclear weapons and anti-personnel landmines in the United Kingdom and elsewhere since 1989.

Walker has published widely on aspects of CBW history in *The CBW Conventions Bulletin* of the Harvard Sussex Program. His book *British Nuclear Weapons and the Test Ban, 1954-1973* was published in November 2010. His second book, *Britain and Disarmament: The UK and Nuclear, Biological and Chemical Weapons Arms Control and Programmes, 1956-1975*, was published in February 2012.

Man-Sung YIM
Professor, Department of Nuclear and Quantum Engineering
Korea Advanced Institute of Science and Technology (KAIST)
Dean, KUSTAR-KAIST Institute
Director, Nuclear Nonproliferation Education and Research Center (NEREC), KAIST
Republic of Korea



Man-Sung Yim is Professor of the Department of Nuclear and Quantum Engineering, Dean of the KUSTAR-KAIST Institute and Director of the Nuclear Nonproliferation Education and Research Center (NEREC) at the Korea Advanced Institute of Science and Technology (KAIST).

Yim is a Professional Engineer of the Republic of Korea and was a senior researcher at the Korea Atomic Energy Research Institute. His research areas include the nuclear fuel cycle, nuclear waste management, nuclear safety, security and nuclear non-proliferation. His work focuses on the safe and responsible use of nuclear power technology.

In the United States of America, he was a lecturer at the Massachusetts Institute of Technology; Associate/Assistant Professor at North Carolina State University (NCSU), a joint faculty between Oak Ridge National Laboratory and NCSU; a Sam Nunn International Security Fellow at the Georgia Institute of Technology; a Senior Research Ethics Fellow at NCSU; a member of the North Carolina Science Advisory Board on Toxic Air Pollutants; and a member of the Nuclear Nonproliferation External Steering Committee of Idaho National Laboratory.

Upon returning to South Korea in 2011, Yim founded the Nuclear Nonproliferation Education and Research Center (NEREC) to raise the level of national capacity in nuclear non-proliferation and started the NEREC International Summer Fellows programme to train future leaders in nuclear non-proliferation. He served as a member of the Advisory Committee on Nuclear Safety and Security for the Korean Nuclear Safety and Security Commission and currently serves as an editor of the *Journal for Peace and Nuclear Disarmament* and as a member of the Editorial Advisory Board of *Progress in Nuclear Energy* and the *International Journal of Nuclear Security*. He is also a member of the Advisory Committee on nuclear

cooperation between the United States of America and the Republic of Korea for the Korean Ministry of Foreign Affairs, the General Council of the Korean Nuclear Society and the International Advisory Board of the Centre for Nuclear Engineering at Imperial College London. He is also a member of the Board of Directors of the Korea Institute of Nuclear Non-proliferation and Control, the Korean Nuclear Policy Society, and the Korean Society for Nuclear Materials Management.

John ZUCCA
Physicist and Deputy for Programmes for the Global Security Directorate
Lawrence Livermore National Laboratory (LLNL)
United States of America



John “Jay” Zucca is a physicist at the Lawrence Livermore National Laboratory (LLNL) in Livermore, California, where he is currently the Deputy for Programmes for the Global Security Directorate. The Global Security Directorate executes programmes in counter-terrorism, global threat reduction, nuclear non-proliferation and energy technology.

His technical work focuses on nuclear test monitoring. He was a member of the United States delegations to the Nuclear Testing Talks (Threshold Test-Ban Treaty) and the Conference on Disarmament for the Comprehensive Nuclear-Test-Ban Treaty. He is currently a member of the United States delegation to Working Group B of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization.

Zucca is currently the Co-Task Leader for On-Site Inspection and Technology Refreshment in Working Group B. Previously, he served as Task Leader for the International Monitoring System.