



## **African Commission on Nuclear Energy**

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### ***Responsibilities and Capabilities of Owners and Operators for a New NP Programme AFCONe – IAEA Webinar***

**Thursday- 24 February 2022 - 14h00 to 17h30 (Pretoria Time/ GMT +2)**

## **Moderators & Speakers Profiles**

*(Presented According to the Meeting Agenda)*

## MODERATOR



**Dr. Mzubanzi Bismark TYOBEKA**  
CEO: National Nuclear Regulator (NNR)  
Current Chairman of the Regulatory Cooperation  
Framework (RCF/IAEA)

Dr. Tyobeka was appointed by the Minister of Energy as the Chief Executive Officer of the National Nuclear Regulatory of South Africa since September 2013.

He started his nuclear career 19 years ago as a reactor Physicist at Eskom Enterprises, the South African Electricity Utility Company, before moving on to the roles of Senior Physicist at Eskom Enterprises, Chief Nuclear Engineering Analyst at PBMR Pty Ltd and Nuclear Engineer and Unit Head: Gas-Cooled Reactors at the International Atomic Energy Agency IAEA in (Austria, Vienna).

During his tenure at the IAEA, Dr. Tyobeka was also involved in the IAEA team that advises Member States in the development of new nuclear power programmes: He was involved with countries in Africa, South East Asia, Europe, and Latin America.

Dr Tyobeka is the Chairperson of the Council of the North-West University; the second largest university in South Africa since March 2017. He previously served as a Member of the University Council, including being a Chairperson of NWU Council's Transformation Oversight Committee and Executive Committee of Council since November 2014. Dr. Tyobeka currently serves as the Member of the International Nuclear Safety Advisory Group (INSAG) appointed by the IAEA Director-General for the period 2016 – 2020. He also serves as a Chairman of the Regulatory Cooperation Forum under the auspices of the IAEA.

He is also a member of the IAEA's Technical Working Group on Nuclear Knowledge Management. In May 2017 at the International Atomic Energy Agency Headquarters in Vienna, Austria, Dr. Tyobeka was elected President of the 6th Review Meeting of Contracting Parties to the Convention on the Safety of Spent Nuclear Fuel Management and Safety of Radioactive Waste Management (Joint Convention).

Recently, Dr. Tyobeka was appointed by the Minister of Trade and Industry as member of the South African Council for the Non-Proliferation of Weapons of Mass Destruction for a period of five years, from 01 July 2019 to 30 June 2024.

He holds a Master's degree and a PhD in Nuclear Engineering both from the Pennsylvania State University, USA, a Master's degree in Applied Radiation Science and Technology from North-West University, South Africa, a Master's degree in Management specializing in Project Management from Colorado Technical University in the USA.



**Mr Yasser ELLETHY**

**Consultant. Nuclear Infrastructure Development  
Section (NIDS). IAEA.**

Mr Yasser ELLETHY is working as Consultant for Nuclear Infrastructure Development Section ( NIDS) of the International Atomic Energy Agency for 2 years. His main area of responsibility is to provide support to countries embarking on Integrated management systems through the established mechanisms

Prior to IAEA, 25+ years' experience in various assignments, including

- Worked as the Manager of Radioisotope Production Plant at Egyptian Atomic Energy Authority ( EAEA).
- Worked as maintenance head at ETRR-2 reactor
- In addition to his role, he participated as QA/QC engineer in the fabrication, construction and commission stages of ETRR-2, FMPP , FSF, and RPF projects at EAEA.

Mr ELLETHY has a B.Sc. in Mechanical engineering and M.Sc. and Ph.D. in Metallurgical engineering.

He developed competence in different technical areas with regard to the Engineering , Fabrication, Maintenance , Quality assurance, Management systems, Production activities throughout his professional career.

## OPENING REMARKS SESSION



**Mr. Messaoud BAALIOUAMER**  
AFCONE EXECUTIVE SECRETARY

Mr. Messaoud Baaliouamer is the Executive Secretary of the African Commission on Nuclear Energy (AFCONE) since December 2018.

He represented Algeria as AFCONE Commissioner from 2011 to 2018.

Before joining AFCONE, Mr. Baaliouamer served as Director for Foresight Studies and Nuclear Applications since 1999 at the Algerian Atomic Energy Commission (COMENA).

He coordinated the AFRA Algerian Programme from since 1999 and Assumed the Function of IAEA National Liaison Officer (NLO) from 2012 to 2018.

He has been a member of the AFRA (African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology) Field Management Committee (FMC) and the Programme Management Committee (PMC) from 2000 to 2015.

From 1995 to 1998, Mr. Baaliouamer served as the Chair of the Scientific Committee at Birine Nuclear Research Centre. He assumed the Position of Director of this Center from 1991 to 1992 and headed the “Nuclear Instrumentation and Control Department” of this Center from 1988 to 1998.

He actively contributed to the commissioning of the AURES 1 Subcritical Assembly in 1986, the 1 MW NUR Nuclear Research Reactor in 1988-89 and the 15 MW Es Salam Multi-Purpose Heavy Water (MPHW) Reactor and associated Laboratories from 1992 to 1996.

Mr. Baaliouamer is Senior Researcher (Maître de Recherche) in Nuclear Engineering since 2000. In 1980, he was awarded a Master of Sciences in Nuclear Engineering.

From 1980 to 2016, he contributed to develop curriculums and as lecturer in several education and training programs including nuclear engineering and medical physics. From 2007 to 2011, he led the COMENA Team which created the “Algerian Institute of Education and Training in Nuclear Engineering” (IAGN/ COMENA).

In January 2007, he chaired the Scientific Committee of the African Regional Conference on Nuclear Energy (Contribution to Peace and Sustainable Development), held in Algiers, whose declaration and plan of action have been adopted by the African Union Head of States Summit in January 2007, in Addis Ababa.



**H.E. Dr Amani ABOU-ZEID**  
**Commissioner for Infrastructure**  
**and Energy (AUC)**

Dr. Amani Abou-Zeid is the African Union Commissioner in charge of Infrastructure, Energy, ICT and Tourism.

For more than 30 years, Dr Abou-Zeid has served in leadership positions in international organisations and has amassed a remarkable mix of experience from across continents and stakeholders.

She has managed AfDB largest operational portfolio and implemented national and continental multi-sectoral development programmes, including implementing the world's largest solar power plant.

In 2018, she launched the Single African Air Transport Market, delivering on the first flagship project for African Integration under African Union Agenda 2063. This year, she launched Africa's digital transformation strategy and many other continental initiatives and projects.

An Egyptian national, Dr Abou-Zeid has a multi-disciplinary education: Electrical Engineering, Cairo University; MBA, Université Senghor; MPA, Harvard University; and Ph.D. Social and Economic Development, The University of Manchester.

Dr. Abou-Zeid was selected trice, in 2012, 2019 and again in 2020, one of "The 50 Most Influential Women in Africa; and was decorated the Wissam Alaouite from Morocco; She was named "Personalité d'avenir" from France; and received the "Outstanding Alumni Award" from the University of Manchester, UK — some of numerous international awards and recognitions. In 2020, she was named one of the "Most Reputable Africans" by Reputation Poll International.

Dr Abou-Zeid is member of the prestigious Global Leaders Broadband Commission for Sustainable Development, and the Global Commission for Urgent Action on Energy Efficiency, the Stewardship Board for System Initiative on Shaping the Future of Energy, and the high-level panel on road safety as well as of the Identification for Development (JD4D) High-Level Advisory Council.

Dr. Abou-Zeid sets the example for women in STEM and in leadership and decision making positions and is long named and recognized as champion of gender equality and women empowerment.

Dr. Abou-Zeid is passionate about classical music, plays piano, is a certified alpinist and competes to top positions in desert car rallies – among other interests and activities.



**Ms. DES CLOZEAUX Aline,  
Nuclear Power Division Director, IAEA**

Before joining the IAE Agency, Ms des Cloizeaux worked as Director, Civil Nuclear and Equipment Business Line at Naval Group, Program Director at Framatome, Large Investment Projects SVP at Orano, and held various positions at Areva and Cegelec, in Paris, France.

Until December 2021, she was the President of Women in Nuclear in France.

Ms des Cloizeaux holds a Master's degree in Science and Engineering Technology from the École Polytechnique, a Master's degree in Civil Engineering Technology from the École Nationale des Ponts et Chaussées and an MBA from the Collège des Ingénieurs.



## SPEAKERS



**Mr Mehmet Ceyhan**  
Nuclear Engineer (Infrastructure)  
Nuclear Infrastructure  
Development Section IAEA

Mr Mehmet Ceyhan is working as Nuclear Engineer (Infrastructure) for Nuclear Infrastructure Development Section of the International Atomic Energy Agency.

His main area of responsibility is to provide support to countries embarking on nuclear power through the established mechanisms.

He is also serving as programme manager for Integrated Nuclear Infrastructure Review (INIR) service of the Agency.

Previously, he worked as the Head of Nuclear Safety Department of Turkish Atomic Energy Authority (Nuclear Regulatory Body) which is responsible for licensing and oversight of all nuclear facilities in Turkey including the first nuclear power plant which is under construction

In addition to his regulatory role, he participated in the initiation and implementation of Turkish nuclear power programme in different areas including the negotiations for IGAs for NPP projects, development of new national legislation and development of policies and strategies in different fields.

His past experience includes 7 years of previous IAEA assignment in Nuclear Fuel Cycle and Waste Technology Division.

He is a nuclear engineer as background and developed competence in different technical areas with regard to the regulatory activities for safety, security and safeguards throughout his professional career.



**Mr Pedro Dieguez Porras**  
Nuclear Power Engineering  
Section IAEA

Mr Pedro Dieguez Porras is Technical Lead on Management and Capacity Building at the nuclear Power Engineering Section of the IAEA, providing support to Operating and Expanding Member States on Management, Leadership, Industrial Involvement, Human Resources Development, Training, Workforce Planning and Modelling.

Previously he worked as Executive Director of the European Nuclear Education Network, international association based in Brussels, managing a portfolio of Nuclear Education, Training and Knowledge Management EC funded projects

In Tecnatom, Spanish engineering company, as Senior Manager provided training and engineering support to nuclear operation for PWR and AP1000 NPPs, while developing international commercial activities.

Professional career shaped by business acumen and technical expertise in Nuclear Energy, NPPs, Engineering Services, Knowledge Management, Education & Training, Engineering Services in 6 countries: Austria, Belgium, France, Spain, China, Sweden and the United Kingdom.



**Mr Mohammad Shawkat AKBAR.**

**Project Director of the nuclear power plant construction project and Managing Director of Nuclear Power Plant Company Bangladesh Limited (BAEC)**

Dr Mohammad Shawkat Akbar has been the Scientific Officer and Director of Nuclear Power and Energy Division at the Bangladesh Atomic Energy Commission (BAEC).

He Completed his BSc (Hon) and MSc in Physics from the University of Dhaka, Bangladesh in 1988 and 1991, respectively.

He Obtained the Degree of Doctor in Engineering from Hokkaido Institute of Technology, Japan in 1998.

He Joined BAEC in 1993. He conducted and coordinated various preparatory phase activities for implementation of the Country's First Nuclear Power Plant (NPP), the "Rooppur NPP" project as a Project Director. He also assumed the role of Project Counterpart of the relevant IAEA TC Project and Member of National Committee on Rooppur NPP.



**Mr David NICHOLLS**

**Chairman of the South African Nuclear Energy Corporation (NECSA) Board**

Mr Nicholls joined **Eskom** as the Koeberg nuclear reactors were being commissioned in 1984 and during most of his 34 years in Eskom remained in the nuclear field.

He was head of Eskom's PBMR project from 1993 to 2003.

He retired from Eskom as the Chief Nuclear Officer, responsible for all nuclear activities in the company, in December 2018.

Mr Nicholls was appointed as the Chairperson of the Board of the South African Nuclear Energy Corporation (NECSA) in January 2020.

Internationally Mr Nicholls was the Chairman of the IAEA Technical Working Group on Light Water Reactors from 2010 to 2016

He is currently the Co-Chair of the IAEA Technical Working Group on Nuclear Power Plant Operations.





**Professor Yusuf Aminu Ahmed**  
Chairman and CEO  
Nigeria Atomic Energy Commission  
(NAEC)

Born in Yola, Adamawa State in 1970, Prof. Ahmed holds a B.Tech (Physics), MSc and PhD (Nuclear Physics) with specialization in Nuclear Instrumentation and Spectrometry.

He has received trainings from various international laboratories on Reactor Physics, Nuclear Data, Nuclear Safety, Radioisotopes Production, Waste Management, Decommissioning and Radio Analytical Techniques.

He started his career in nuclear science and technology in year 2000 at Ahmadu Bello University (ABU), Zaria as part of the academic staff team of the Nigeria Research Reactor-1(NIRR-1) at the Center for Energy Research and Training (CERT).

He rose through the ranks to become a Professor of Nuclear Physics in 2017 and Director and Head of Laboratories of the Center (2015-2019). He has served in various national and international committees on nuclear safety and security.

Until his present appointment, he was the Director (Special Duties) of the Commission, Secretary of AFRA-IAEA Program Management Committee, Steering Committee Member of the International Working Group on Advancing Insider Threat Mitigation and Member of the Joint Working Group of the International Partnership for Nuclear Disarmament Verification.

Prof. Ahmed is an Associate Member of the International Centre for Theoretical Physics (ICTP), Italy, Fellow of the Nigerian Association of Technologist in Engineering, Fellow of the Institute of Human and Natural Resources and a Fellow of the Nigerian Institute of Physics (NIP).



**Dr Charles Kofi KLUTSE**

**Research Scientist NPI,  
GAEC, Ghana**

Dr Charles Kofi KLUTSE holds a Ph. D in Analytical Chemistry from the University of Maryland, Baltimore County, Baltimore, USA; M. S. Environmental Science, University of Maryland Eastern Shore, Princess Anne, USA; B.Sc. Chemistry University of Cape Coast, Ghana

His areas of research include optical spectroscopy and instrumentation, radiochemistry, surface-enhanced Raman scattering, nanomaterials synthesis, characterization and application, environmental and food quality analysis.

From 2007 to 2012, he was a graduate teaching assistant at the University of Maryland, Baltimore County. He was in charge of undergraduate analytical laboratory sessions, supervised undergraduate internship, and was a research mentor to several undergraduate mentees. From 2012 to 2013, he was a senior research assistant at the Chemistry Department, University of Cape Coast, Ghana

Since 2013, he is a Research Scientist at the Nuclear Power Institute (NPI), Ghana Atomic Energy Commission (GAEC) and a lecturer at the Graduate School of Nuclear and Allied Sciences, University of Ghana.

His main activities and responsibilities are as follow:

- Coordinating the development of the management system for the nuclear power programme,
- managed the quality of Phase 1 activities of the nuclear power programme,
- continues to lead in fostering strong leadership and culture for safety,
- developing tools and methodology for assessment and improvement of quality, performance and safety culture,
- developing tools and methodologies for assessing and managing risk of tacit knowledge loss in GAEC,
- developing organizational competence in knowledge management,
- lecturing graduate students in radiochemistry and multi-elemental analysis,
- supervising graduate students research,
- conducting research in environmental and food quality

Dr Klutse is the country coordinator for IAEA Peace Uses Initiatives programme on enhancing management system development in newcomer countries.