



WATER AFRICA AND WEST AFRICA BUILDING & CONSTRUCTION

INTERNATIONAL TRADE EXHIBITION & SEMINARS 2024

Accra International Conference Centre, Accra, Ghana

26-28 June 2024

www.ace-events.com



Provisional Programme Water Africa & West Africa Building and Construction 2024 Accra International Conference Centre 26-28 June 2024

Opening Ceremony Wednesday 26 June 2024

Chairperson for Opening Ceremony: **Ing. Kwabena Brempong (FGhIE), President**, Ghana Institution of Engineering (GhIE), Ghana

- 09.00 **Registration, Networking, and Exhibition walkthrough**
- 10.00 Welcome Address – ACE Event Management Ltd. and GhIE
Introduction of Guests of Honour: **Hon. Lydia Seyram Alhassan, Ministry of Sanitation and Water Resources** and **Hon. Kojo Opong Nkrumah, Ministry of Works and Housing**.
- 10.10 Official Opening and Keynote addresses by the Guests of Honour:
Hon. Lydia Seyram Alhassan, Minister of Sanitation and Water Resources.
Hon. Kojo Opong Nkrumah, Minister of Works and Housing.
- 10.30 Official Tour around the exhibition with the Guests of Honour: **Lydia Seyram Alhassan, Minister of Sanitation and Water Resources**, **Hon. Kojo Opong Nkrumah, Minister of Works and Housing**, **Ing. Kwabena Brempong (FGhIE), President of GhIE** and **Tracey Nolan-Shaw, Managing Director of ACE Event Management Ltd.**

Delegates are invited to join the Ministers and Dignitaries to meet the Exhibitors.

Seminar Programme begins:

Water and Sanitation Seminar Wednesday 26 June 2024

Theme: "WASH, Youth, Gender and Environment: Needs, Solutions, and Progress towards SDGs and AU's Agenda 2063"

Chairperson for Water and Sanitation Seminar: **Ing. Steve Anoff Amoaning-Yankson (FGhIE), Managing Director**, Municipal Development Collaboration Ltd., *past president* GhIE, Ghana

- 11.10 **Exploring Investment Opportunities or PPP for Rural and Small-Town Water Supply in Ghana**
Presenter: **Dr Bertha Dartey**
Organisation: Agua Consult, Ghana

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- 11.35 **How Villages Can Fund Their Own Affordable Wells**
Presenter: **John Renouard**
Organisation: WHOlives.org, USA
- 12.00 **Building Climate Resilience in The Sanitation Value Chain Through Innovative Technologies Towards Circular Economy**
Presenters: **Majeke Phillip**, Mamakoa Ednah
Organisation: Research Development and Innovation Branch, Water Research Commission, South Africa
- 12:25 **Questions and Answers Session**
- 12.35 **PANEL DISCUSSION – Optimizing Water Resources- Addressing Flooding Challenges**
MODERATOR – **Ing. Dr. Bertha Dartey**, Agua Consult, Ghana
Panellists: **Ing Wise Ametephe** - Hydro
Dr. Ohene Sarfo/ Kwadwo Keelson- GARID Project
Women in Engineering – NADMO Rep.
Dr John Kissi – CEO Ghana Hydrological Authority
- 13.15 **Light Lunch, Networking, and chance to meet the Exhibitors.**
- 14.15 **Restoring Urban Water Courses and Streams, Assessing the Impact of Effluents from Wastewater Treatment Plants in Low-Income Urban Communities**
Presenter: **Lukman Salifu**
Organisation: WasteCare Associates, Ghana
- 14.40 **Unlocking the Secrets of Groundwater in Accra's Densu Delta**
Presenter: **Zenobia Kusi-Afrakoma**¹, Cynthia Laar², Gibrilla Abass², Charles Gyamfi¹, Geophrey Anornu¹
Organisations: 1 Department of Civil Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana (Regional Water and Environmental Sanitation Center, Kumasi (RWESCK), Kwame Nkrumah, University of Science and Technology,
2. Water Resources Research Centre, National Nuclear Research Institute, Ghana Atomic Energy Commission.
- 15.05 **Rapid, Automated Water Testing for Coliforms, E. coli And Enterococci.**
Presenter: **Shane Soobramoney**
Organisation: IDEXX Water, Johannesburg, South Africa
- 15.30 **Questions and Answers Session**
- 15.40 **Enhancing Water Quality in Urban Agriculture: Efficacy of Activated Charcoal in Ghana**
Presenters: **Dinah Asamoah-Antwi**^{*1,4}, Robert Yaw Gyamfi Andoh^{1,2}, Martin Kyereh Domfeh^{1,3,4}, Nana Osei Bonsu Ackerson^{1,4}
Organisations:1. Regional Centre for Energy and Environmental Sustainability (RCEES), University of Energy and Natural Resources, Sunyani-Ghana
2 School of Energy, University of Energy and Natural Resources, Sunyani-Ghana
3. Earth Observation Research and Innovation Centre (EORIC), University of Energy and Resources, Sunyani-Ghana
4. Department of Civil and Environmental Engineering, University of Energy and Natural Resources, Sunyani-Ghana

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- 16.05 **A Sustainable Approach to Arsenic, Iron and Manganese Removal in Groundwater: A Review of Pureco Africa's Independent Drinking Water Provider Concept**
Presenter: **Delali Kwasi Aklika**
Organisation: PURECO, Ghana
- 16.30 **Questions and Answers: Wrap up of Water and Sanitation Seminar**
- 16:40 **Networking and chance to meet Exhibitors.**

***All attendees will receive a Certificate of Attendance on Friday 28th June**
Remember to come back tomorrow for:

“Infrastructure and the Built Environment: Needs, Solutions, and Progress towards SDGs and AU’s Agenda 2063”

Free Registration please go to: <https://register.eazytagg.com/sug9>

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Building and Environment Day Thursday 27 June 2024

Chairperson for Building and Environment Day and Seminar: **Ing. Michael Obeng Konadu (FGhIE), Chair Civil Technical Division**, Ghana Institution of Engineering, **Managing Director**, Mobekon Geo-Engineering Ltd., Ghana

- 09.00 **Registration, Networking and Exhibition walkthrough**
- 10.00 Welcome Address – ACE Event Management Ltd. and GhIE
Introduction of Keynote Speaker: **Prof. Bob Andoh, University of Energy and Natural Resources (UENR), Sunyani, Ghana.**
- 10.10 Keynote address by **Prof Bob Andoh – Development Director ACE Events Management Ltd., UK, and Adjunct Professor School of Energy, UENR, Ghana**
Topic - **Bridging the Technological Gap Through Innovation: Making Progress towards SDGs and AU's Agenda 2063.**
- 10.30 Official Tour around the exhibition with: **Built Environment Professionals, Ing. Kwabena Brempong (FGhIE), President of GhIE, Ing. Michael Obeng Konadu (FGhIE), Managing Director**, Mobekon Geo-Engineering Ltd., Ghana and **Tracey Nolan-Shaw, Managing Director of ACE Event Management Ltd.**

Delegates are invited to join the Dignitaries to meet the exhibitors.

Seminar Programme begins:

Building and Environment Seminar Thursday 27th June 2024

Theme: “Infrastructure and the Built Environment: Needs, Solutions, and Progress towards SDGs and AU's Agenda 2063”

- 11.10 **Effective Delivery of Housing for The Low Income: The Role of The Built Environment Professional**
Presenter: **Pln. Alfred Kwasi Opoku (FGIP)**
Organisation: **JEAVCO Associates Limited, Ghana**
- 11.35 **Usability of African Forest Timber for Mass Timber Construction System**
Presenter: **Dr Samuel Olufemi Fakolade, Adefemi Afolabi, Moses Ugbor, Olayinla Ajiboye & Prof Olaniyi Okedele**
Organisation: **Anchor University, Lagos, Nigeria**
- 12.00 **The role of the public and private sector in housing**
Presenter: **Samuel David Kofi Amegsyibor**
Organisation: **GREDA, Ghana**
- 12:25 **Questions and Answers Session**

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- 12.35 **PANEL DISCUSSION – Innovations in Building and Construction - Addressing the Housing Deficit**
MODERATOR – **Arc Esinam Tagbotor** (GIA), Infiniti Build Group, Ghana
Panellists: **Arc Charles Blankson-Hemans** - Appiate Resettlement Project, Ghana
Pln Alfred Kwasi Opoku (FGIP) – JEA VCO Associates Limited, Ghana
Pln Mohammed Alhassan - Immediate Past President, GIP, Ghana
Samuel David Kofi Amegsyibor – GREDA, Ghana
- 13.15 **Light lunch, Networking, and chance to meet the Exhibitors.**
- 14.15 **Experimental and Computational Studies of Crystal Violet Removal from Aqueous Solution Using Sulfonated Graphene Oxide.**
Presenters: **Olayinka Oluwaseun Oluwasina**^{1*}, **Adedeji Adebukola Adelodun**^{1,2}, **Olugbenga Oludayo Oluwasina**³, **Helio Anderson Duarte**⁴, **Sunday Joseph Olusegun**^{5,6}
Organisation: 1. Department of Marine Science and Technology, The Federal University of Technology, P.M.B. 704, Akure, Nigeria, 340110
2. Department of Chemistry, University of Copenhagen, Universitetsparken 5, DK-2100 Copenhagen Ø, Denmark
3. Department of Chemistry, The Federal University of Technology, P.M.B. 704, Akure, Nigeria, 340110
4. Universidade Federal de Minas Gerais, Departamento de Química, 31270-901 - Belo Horizonte, Brazil
5. Department of Environmental Biotechnology, Faculty of Energy and Environmental Engineering, Silesian University of Technology, Gliwice, Poland
6. Michigan State University, Department of Chemistry, 578 S. Shaw Lane, East Lansing, Michigan 48824-1322, USA
- 14.40 **Fluoride in Drinking Water of Ethiopia: Evaluation of Removal Technologies**
Presenters: **Eng. Dereje Nigussa Hunde**, Dr Fikadu Woldemariam Wodessa
Organisation: Planet Development Consultant PLC; and 2Adama Science and Technology University (ASTU), Ethiopia
- 15.05 **Integrated Water Resources Management in The Pra River Basin: Opportunities, Challenges and Lessons Learned.**
Presenters: **Abena Dufie Wiredu Bremang**^{1,2,3}, **Gyamfi, C.**^{1,2} **Anornu, G. K.**^{1,2} and **Odai, S.N.**^{1,4}
Organisations: 1. Department of Civil Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
2. Regional Water and Environmental Sanitation Center, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
3. Water Resources Commission, Pra Basin Secretariat, Kumasi, Ghana
4. Vice Chancellor's Office, Accra Technical University, Accra, Ghana
- 15.30 **Questions and Answers Session**
- 15.40 **3D Hydrogeological Modelling for Sustainable Management of Densu Wetlands**
Presenter: **Ing. Owusu-Korkor Asante**
Organisation: Ghana Hydrological Authority (HYDRO), Ghana

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- 16.05 **Innovative Application of Affordable WASH Solutions with Private Participation: Case of JGC In Ghana**
Presenters **Issahaku Ahmed**, Florence Cobbold
Organisation: Sewerage Systems Ghana Ltd. (JGC), Ghana
- 16.30 **Questions and Answers: Wrap up of Building and Environment Seminar**
- 16:40 **Networking and chance to meet Exhibitors.**

***All attendees will receive a Certificate of Attendance on Friday 28th June**

Remember to come back tomorrow for CPD Course and Workshop:

“Addressing Flooding Challenges: Innovative Technologies and Green Solutions”

Free Registration please go to: <https://register.eazytagg.com/sug9>

All presentations will be uploaded on the ACE Event Management website www.ace-events.com from 31st July 2024

CPD Course and Workshop @ Accra International Conference Centre from 9:00am to 1:30pm on Friday 28th June 2024

Topic:

“Addressing Flooding Challenges: Innovative Technologies and Green Solutions”

Instructor:

Prof Bob Andoh



Professor Bob Andoh (brief bio)

Bob Andoh is an adjunct professor at the University of Energy and Natural Resources, Sunyani, Ghana and the Development Director for ACE Events Management Ltd, UK. He has been a visiting professor at Liverpool John Moores University, UK and a Technology Consultant at AWD Consult Inc., USA. He is an associate editor for the CIWEM Journal of Flood Risks Management, an editor for Elsevier’s Scientific African Journal and was formerly the Director of Innovation and Chief Technology Officer at Hydro International plc, overseeing and championing, the development, and commercialization of a range of award-winning water and environmental technologies. He received a SMART award for innovation given by the UK Government Department of Trade and Industry (DTI) and is a named inventor on several patents. Bob is the inaugural recipient of “Outstanding Individual Contribution to the Water Industry” IWEX Innovations (now “UK Water Industry Achievement”) award.

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CPD Course and Workshop @ Accra International Conference Centre
Friday 28th June 2024: from 9:00am to 1:30pm

“Addressing Flooding Challenges: Innovative Technologies and Green Solutions”

ABSTRACT

CPD Course/Workshop on developments in Integrated Urban Water Management (IUWM) to address 21st century flooding, pollution, and environmental degradation challenges, resulting from rapid urbanization globally. Participants will gain more experiential-based and practically oriented knowledge and insights into newer paradigms, innovative technologies, and the leveraging of these as Blue Infrastructure in the confluence between the conventional Gray and the emerging Green Infrastructure solutions. The need for the evolution of appropriate Policies and related Regulatory Frameworks that promote these newer paradigms and facilitate the development and leveraging of innovative Environmental Technologies that provide improved scope for the promotion of Climate Change resilient Infrastructure and the evolution of Environmental Technologies based industries with associated Jobs creation and heightened Environmental Stewardship is underscored in this workshop.

1. Do you want to understand the true nature of water and implications of the **Half-Hydrological Cycle** in the **increasing prevalence of flooding** and droughts and how this may be amplifying climate change impacts in urban environments globally?
2. Learn about the evolution of conventional urban water drainage systems, how these have contributed to public health gains in the 20th Century but now; how these conventional systems have limitations in dealing with 21st-century urban water management challenges.
3. Obtain knowledge of emerging paradigms and an understanding of the need for shifts from conventional approaches; providing insights into how these newer paradigms are leading to more sustainable approaches to urban water management; leveraging Blue, Gray, and Green Infrastructure with distributed systems controls that mimic natural systems.
4. Gain insights into **Innovative Technologies** that are being combined with the newer paradigms, supported by appropriate and enabling regulatory regimes, to deliver more cost-effective, sustainable, adaptable, and resilient urban water management systems that address 21st century needs and challenges whilst resulting in the evolution of Environmental Technologies industries, providing opportunities for jobs creation at the local level.
5. Find out what you can do individually and as part of a “collective” community; to effect changes and adopt measures that improve Urban Water Management in the 21st Century; beginning with the **5-Rs** of Urban Water Management (**Reverence/Respect, Reduce, Reclaim, Re-Use, Recycle**) as an integral part of heightened awareness for **good Environmental Stewardship**.

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Continuous Professional Development (CPD) Workshop Friday 28th June 2024

Provisional Workshop Programme

**Theme: "Addressing Flooding Challenges:
Innovative Technologies and Green Solutions"**

Chairperson for CPD Workshop: **Ing. Harold Esseku (FGhIE), Council Member GhIE, Senior WASH Specialist, World Bank, Ghana**

- 9.00 **Registration, Networking and Exhibition walkthrough**

- 9:30 -10:00 **Introductions and Preamble (nature of water):**
 - What is the true nature of Water?
 - A new paradigm for Water
 - Making Space for Water in our Environment

- 10:00 -10:45 **Hydrological Cycle and Drainage Concepts:**
 - Impacts of Urbanization on Catchments
 - Evolution of Conventional Systems
 - Paradigm Shifts and Emergence of Alternative Drainage Concepts

- 10:45 – 11:00 **Questions and Answers**

- 11:00 – 11:40 **Networking Break and Chance to visit Exhibition Stands**

- 11:40 – 12:25 **Source Control and Distributed Storage**
 - Flood Mitigation with Source Systems
 - Examples of Innovations and Technologies
 - Regulatory Regimes and Frameworks

- 12:25 – 12:40 **Questions and Answers**

- 12:40 – 13:10 **Applications and Case Studies**
 - A Review of Flooding in Local Catchments.
 - State of Catchments, Rainfall Patterns, and Impacts of Developments.
 - Challenges with Vulnerable Environs – Peri-Urban Areas

- 13:10 – 13:30 **Recap and Bringing it all together.**
 - The need for Policy Changes –
 1. Post Development Runoff Control
 2. Rainwater Harvesting
 3. Adopting Water Sensitive Urban Designs and Nature Based Systems
 - Attitudinal Changes, Individual, and Collective Responsibilities
 - Institutional Reforms and Embracing Innovation to Create Jobs

- 13:30 **Networking opportunities with the exhibitors.**

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