



# CONFERENCE BROCHURE

**12-14**  
MAY, 2022

S P O N S O R S :



## EVM ENVIRONMENTAL MONITORS

The TSI Quest™ EVM Environmental Monitors simultaneously measure particulates and gas concentration in real-time



## EXPOSURE MONITORING AEROSOL MONITORS

DustTrak™ II and DustTrak™ DRX Aerosol Monitors

The DustTrak™ II and DustTrak™ DRX Aerosol Monitors are battery-operated, data-logging, light-scattering laser photometers that provide real-time mass concentration readings for aerosol contaminants such as dust, smoke, fumes and mist.



## PERSONAL AEROSOL MONITORS

SidePak™ Personal Aerosol Monitors Model Am520 & AM520i

SidePak™ Am520 and Am520i Personal Aerosol Monitors measure worker exposure to respirable dust, silica and diesel particulate matter (DPM).



## SOUND LEVEL METERS

Quest™ Sound Examiner and SoundPro™ Sound Level Meters

SE-400 & SP-Series

Quest™ Sound Level Meters make it simple to document and analyze sound levels across variable environments.



## AIR QUALITY MONITORING

OUTDOOR ENVIRONMENTAL MONITORS  
DustTrak™ Environmental Monitors

DustTrak™ Environmental Monitors are air monitoring systems utilizing data-logging, light-scattering laser photometers.



## ULTRA FINE PARTICLE COUNTERS

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The P-Trak® Model 8525 Ultra-fine Particle Counter gives direct, real-time measurement of workplace ultra-fine particulate levels.



## RESPIRATOR FIT TESTING

RESPIRATOR FIT TESTERS

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## HANDHELD AEROSOL MONITORS

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## NOISE MONITORS

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Quest™ Edge Personal Noise Dosimeters are easy to use for measuring and data logging a worker's personal noise exposure.



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QuestTemp® WBGT Heat Stress Monitors Model 32/34/36 & 44/46

QUESTemp® Heat Stress Monitors are designed to quickly and accurately evaluate potential heat stress environments.



## INDOOR AIR QUALITY MONITORS

Q-Trak™ Indoor Air Quality Monitors Model 7575

Q-Trak™ Model 7575 Indoor Air Quality Monitor provides quick, accurate information to assess key indoor air quality parameters.



## AIR VELOCITY METERS

VelociCalc® Multi-Function Ventilation Meters Model 9565

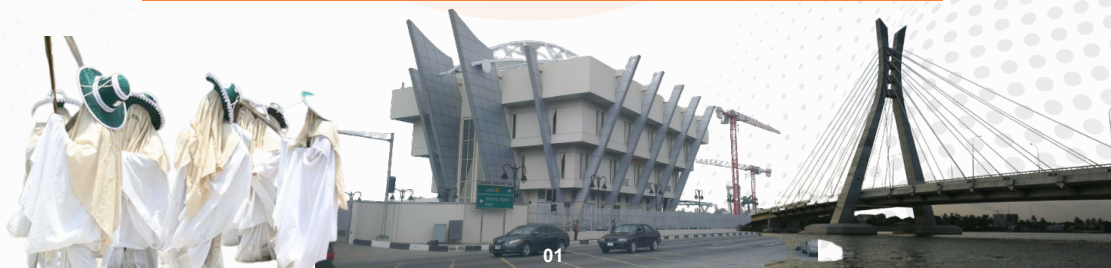
VelociCalc® Air Velocity Meters measure velocity, temperature, humidity, and differential pressure.





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The Association of Industrial Hygienists, Lagos Nigeria (AIHN) is an organization of occupational health and safety practitioners that provides expertise, guidance and information for the management of workplace health hazards in Nigeria.

The organization founded in 2019 was previously known as the 'Nigeria Oil & Gas Industrial Hygiene Forum'. Consequently, the organization has evolved to become an umbrella body for all industrial hygienists who work in or provide industrial hygiene services to industries, organizations and institutions across Nigeria.

#### **Aims and Objectives of AIHN**

The aims and objectives for which the AIHN is established are:

1. To provide a platform for Industrial Hygienists to share knowledge, best practices and improve competence.
2. To provide guidance, tools and resources that facilitate the recognition, evaluation and control of workplace exposures to health hazards leading to the implementation of a recognized standard.
3. To raise awareness of Industrial Hygiene amongst employers on the benefits of a healthy workplace and workforce.
4. To promote a healthy working environment in Nigeria.
5. To provide study aid and mentorship for trainee Industrial Hygienists.
6. To increase visibility and influence of Industrial Hygienists in Nigeria.

## LOC CHAIRMAN'S ADDRESS

It is with great delight I welcome you to this august and long-awaited conference of the Association of Industrial Hygienists of Nigeria (AIHN). This is something everyone has waited for with bated breath and it is not unusual for a maiden conference to take a while in coming. With the resilience of the AIHN Executive Committee, Board of Trustees, and members, it has seen the light of the day.



We are serving you a plethora of knowledge-based engagement opportunities in a hybrid format at this conference and the goal is to draw attention to a rather silent component in the Health, Safety and Environment space in our Industry. From our Personal Development Courses around Radiation Safety as well as Industrial Ventilation, we will progress to a highly packed conference day.

Without discounting the huge personal and industrial gains derivable from this conference, I wish to implore you to use this also as a networking opportunity to expand your professional circle. Please, take advantage of the unique opportunity.

Finally, I wish to express our sincere appreciation to the members of the local organizing committee, those who registered for this conference, those who submitted abstracts and our revered professionals handling the presentations and PDCs. Thanks for being part of the fulfilment of this long-awaited vision of an international conference that will launch AIHN into the consciousness of this great industry. Have fun.

**CHARLES UGBEDE AMEH *CSP, CRSP, CMIOSH, MIEMA***  
*Chairman, Local Organizing Committee (LOC)*

## AIHN PRESIDENT'S WELCOME NOTE

It is a new dawn! It is a dream come true!! We have waited for so long for this day and I am super excited that today we are having the first Industrial Hygiene Conference in Nigeria. This is indeed a great milestone in the history of health and safety science in our dear country Nigeria.



All over the world; the 'H' in HSE is always struggling to be heard; this is even more so in our country Nigeria and Africa. In several industries; exposure especially chronic ones are so difficult to conceptualize and appreciate by the workforce and employers.

As professionals; it is time to change this narrative in Nigeria and protect the workforce better; hence the theme of this conference.

According to WHO/ILO joint estimate of work related disease burden, 2000 – 2016; about 2 million people die annually as a result of occupational diseases. This obviously will be more as either data on this subject in Africa is not available or not accurate. This further buttresses the need to come together as professionals and engage in knowledge and best practice sharing on how to raise awareness and influence as well as build capacity amongst the workforce and various employers.

A bit of story about AIHN; our journey can be categorized into 3; the pre 2008 effort; led by great minds like Late Dr. Francis Oluwagbemi, Wole Oyedele, Grace Oji, Bayo Awosanya etc. The 2008 – 2019 and thirdly, the current effort. The first two era were focused on gathering professionals and sharing best practices; mainly in the oil and gas sector. These efforts provided a very strong foundation for what we have now; a more structured association; with great vision for the growth of industrial hygiene in Nigeria. I will like to at this time say a very big thank you to everyone that have sacrificed time, talent and treasure to ensure we are here today.

It is obviously still a long road ahead. As we gather today; there are still lots of exposures to hazardous substances both in the formal and informal sectors of our economy; at home and at work. We need to rise up as true advocates for health and wellbeing of people. To be a strong advocate; you need to grow knowledge, your network and of course your influence. There is no better way to do this at this time than effective participation in this conference. I thank you all for signing up for this conference; leaving everything today to speak 'Health' and engage your professional colleagues; I wish you all a very fruitful, productive and fulfilling day.

Please engage, learn, network and ensure you have fun!

Thank you.

**MATTHEW OLOTA, MS, CMFOH, CIH, CSP**

## **20 ANNUAL 22 CONFERENCE**

**12  
MAY**

### PRE-CONFERENCE PDCS

#### CONTROL OF RADIATION HAZARDS IN THE WORKPLACE

- Dr. Modupe Oresugun, PhD - 0900 – 1200

#### INDUSTRIAL VENTILATION – IMPLEMENTING EFFECTIVE CONTROL

- Adrian Sims, CEng, BSc, CoC (Control). - 1300 – 1600

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### CONFERENCE DAY

**MODERATOR - IFEYINWA ANYA**

WELCOME NOTE – Matthew Olota, CMFOH, CIH, CSP – 0830 – 0845

#### QUALITATIVE EXPOSURE ASSESSMENTS AND THE LIMITS TO PROFESSIONAL JUDGEMENT

– Paul Verma, ROH, CRSP – 0845 – 0930

TEA BREAK & EXHIBITION – All – 0930 - 0945

IH IN EMERGENCY RESPONSE – Adokiye Michael, AFOH – 0950 – 1035

NOISE CONTROLS IN BROWNFIELD FACILITIES: A CRITICAL REVIEW OF NOISE STUDIES IN AGEING FACILITIES. – Dr. Ken Osakwe, PhD, CMFOH – 1035 – 1120

#### HOW BIG DATA, AI AND ML ARE CHANGING THE EHS PROFESSION

– Oghoin-olem Oruene, AFOH – 1125 – 1210

LUNCH & EXHIBITION – 1210 - 1300

#### KEYNOTE ADDRESS – COURAGEOUS LEADERSHIP IN HSE

– Pauline Rotich, CIH, CSP – 1310 - 1410

#### IH & SHE PROFESSIONALS – STRENGTHENING PARTNERSHIP & COLLABORATION

– Engr. Kayode Fowode, MNSE, FNISafetyE, CFIOSH – 1415 - 1500

#### MEDICAL SURVEILLANCE – PROVIDING CLARITY WITH IH DATA

– Dr. Israel Iroezindu – 1500 – 1545

REFRESHMENT & EXHIBITION – All – 1545 – 1605

#### APPROACH TO HEALTH RISK ASSESSMENT – REVIEW OF IOGP PUBLICATION

– Matthew Olota, CMFOH, CIH, CSP – 1605 - 1640

#### BEYOND OCCUPATIONAL EXPOSURE LIMITS

– Gloria Ayodeji-Fapohunda, CMT, MIOSH, MISPPON – 1645 - 1720

WRAP UP – Charles Ameh, CSP, CMIOSH, MIEMA – 1720 – 1730

DINNER & AWARD NIGHT – 1900 - 2300

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MAY**

### FACILITY VISIT

Mechanic Village, Costain Road, Ojo, Lagos – 1000 - 1300

# CONTROL OF RADIATION HAZARDS IN THE WORKPLACE



**Dr. (Mrs.) Modupe Olusola ORESEGUN, Ph.D.**

## **Education:**

B.Sc. University of Ibadan (1975); MSc. University of California, Berkeley (1978); Ph.D. University of Ibadan (1986)

## **About Modupe:**

Dr. Modupe is an internationally renowned Radiation and Health Physics specialist with over 44 years practical work experience. Her broad-based experience includes service as a technical diplomat at the United Nation's International Atomic Energy Agency (IAEA) Vienna, Austria, where she served for many years as a Radiation Safety Specialist at the Department of Nuclear Safety. At the IAEA, she was given a "Merit Award" for her outstanding quality of work.

After work at the IAEA, back in Nigeria, she was the pioneer Director of Radiological Safety Department of the Nigerian Nuclear Regulatory Authority (NNRA) when NNRA newly started operations. She was also formerly the Technical Director of the defunct Federal Radiation Protection Service (FRPS), University of Ibadan.

She retired from the University of Ibadan, Department of Physics as a Senior Lecturer in 2000.

At the IAEA, she co-authored over 17 documents on radiation safety that are being used as regulatory standards in over 140 countries including Nigeria. She has also published widely in scientific journals.

Since 2007, she has been the Chief Executive Officer and Technical Director of her own consulting firm - NUCLEAR SAFETY CONSULTANTS (NSC). NSC provides Radiation Safety Advisory services to various companies in medical and industrial practices utilizing radiation sources.

## **Abstract:**

People in certain professions may be at increased risk for cancer due to radiation exposure in their workplace. These professions include crude oil production technicians, maintenance technicians, welders, medical radiology technicians, aircrews, underground hard-rock miners, nuclear weapons test participants, and nuclear industry workers. While you cannot change past radiation exposure, we should be able to protect the workforce better going forward.

In this PDC; Ionizing and Non-ionizing Radiation and the associated health effects will be highlighted. The use and application of radiation in various industries will be explored. Details around regulatory requirements and other controls such as; inventory management, labeling, worker training, and medical surveillance as well as worker training will be discussed.

Some focus will be given to the roles Industrial Hygienists play in radiation hazard identification, evaluation methods, work management and emergency response. The Management of Naturally Occurring Radioactive Materials (NORM); the transportation and disposal requirement will also be discussed.

# INDUSTRIAL VENTILATION - IMPLEMENTING EFFECTIVE CONTROLS



**Adrian Sims, CEng, BSc, CoC (Control)**

## **Education:**

University of Western England  
*BSc, Building, Engineering and Science*

## **Qualifications/Certifications:**

BOHS Member, Awarded BOHS Certificate of Competency in Control  
Holds BOHS P-Series and W-Series Qualifications  
Approved BOHS Trainer

## **Specialties:**

Dust and Fume Extraction/Local Exhaust Ventilation/Evaporative Cooling/COSHH/LEV Training/Text or Thorough Examination and Text

## **About Adrian:**

Managing Director at Vent-Tech Ltd and Director at WorkSafe Design Limited.

Building services engineer with over 25 years experience in the industry as consultant and contractor specializing in the design of mechanical building services systems. Spent several years working in for an industrial centrifugal fan manufacturer.

Over 20 years as Managing Director of Vent-Tech Ltd. managing and carrying out the design, installation, testing and commissioning of specialist local exhaust ventilation systems.

## **Works also include:**

Expert witness legal work for cases involving substances such as: Providing impartial advice on proposal assessments.  
Fault diagnosis and solution proffering

## **Abstract:**

Industrial ventilation systems are one of the typical engineering controls found in work environment where hazardous substances are produced during operations and maintenance activities. Implementing an effective ventilation system can be very challenging. Most industrial ventilation problems are complex. The development of cost-effective solutions requires an experienced and qualified ventilation engineer working with an industrial hygienist.

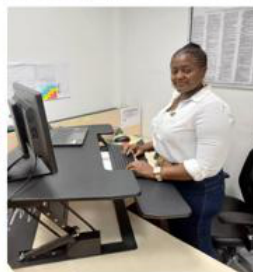
Ideally, the first solution to addressing hazardous substance is elimination either by modification or change in process, change in material, frequency of operation etc. Where this is a challenge; Local Exhaust ventilation might be deployed and in some cases appropriate dilution through a general ventilation system could provide effective control.

In this PDC, the requirements to achieve effective control with Local Exhaust Ventilation system (LEV) will be reviewed.

From initial assessment through to using the system in the real world. The factors and considerations along each step of the way for hood design, filter selection, user training, maintenance and testing of systems, highlighting common issues along the way.

He will close the discussion with a look at the use of general or dilution ventilation to prevent exposure to hazardous substances and the role of Industrial Hygienists in ensuring proper installation, use and maintenance of ventilations systems.





- Work Place Health hazard
- Exposure Assessment. Hazard surveys.
- Noise surveys.
- Health Hazard monitoring.
- Health and Safety Hazard training for workers.
- Facility Health Inspection.
- Industrial Hygiene Unit set up and Mentoring program.
- Project Health plan development and reviews. etc
- Industrial Hygiene Equipment Calibration Services

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# COURAGEOUS LEADERSHIP IN HSE



**Pauline Rotich, CIH, CSP**

## **Education:**

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health  
*Doctor of Philosophy, Occupational and Environmental Health, Healthcare Management and Policy*

University of Central Missouri  
*Master of Science, Industrial Hygiene*

## **About Pauline:**

Developing and leading best in class Environmental Health and Safety Center of Excellence at Microsoft. Certified Industrial Hygienist (CIH) and Certified Safety Professional (CSP) Occupational Health expert with solid experience in COVID 19 safeguards, management expertise for Global Support for Technology, Oil & Gas, Occupational Health, Research, Tableau, Electronics, Aviation and Information Technology. Expertise in Global Organizations and Occupational Health Management, Supervision of Safety and Health Programs, Industrial Hygiene Sampling, Statistical Analysis, Emergency Response and Infectious Diseases.

**Specialties:** Technology, EHS, Industrial Hygiene, Occupational Health, Safety Management, Risk Management, Analysis and Mitigation, Oil and Gas Industry, Data Analysis and Visualization, Electronics.

## **Abstract:**

As EHS professionals we are committed to a culture in which the right to a safe and healthy working environment is respected at all levels, where employers and workers actively participate in securing a safe and healthy working environment through a system of defined rights, responsibilities and duties, and where the principle of prevention is accorded the highest priority.

EHS management systems are only effective when accompanied by a positive EHS culture, where management and workers value the right to a safe and healthy working environment and actively work together towards this end.

The interactive session will include presentation covering practical techniques for professionals to elevate health as part of EHS, training sessions on personal and professional productivity and perspectives from a senior female African EHS leader. Discussions on opportunities for EHS in Tech and Manufacturing and an outlook of the future of EHS in Africa and beyond.

# QUALITATIVE EXPOSURE ASSESSMENTS AND THE LIMITS TO PROFESSIONAL JUDGEMENT



**Paul Verma, ROH, CRSP**

## **Education:**

University of Aberdeen  
MSc in Occupational Hygiene  
McMaster University  
BA Psychology

## **Qualifications:**

Registered Occupational Hygienist, Canadian  
Registration Board of Occupational Hygienists  
Canadian Registered Safety Professional, Board of  
Canadian Registered Safety Professionals

## **Abstract:**

“Qualitative Exposure Assessments and Limits to Professional Judgement” A discussion of the strengths and weaknesses of qualitative risk assessment and the role of the Industrial Hygienist in managing occupational hazards. Largely based on the NIOSH publication “Qualitative Risk Characterization and Management of Occupational Hazards: Control Banding – A Literature Review and Critical Analysis. The presentation would provide a broad description of qualitative strategies to reduce risk of exposure to occupational hazards, recognizing that a deliberate and extensive review of the topic will help guide decisions for where Control Banding applications may be most effective. In addition, Control Banding strategies within the context of qualitative occupational risk management concepts would be highlighted. This is characterized by selection and implementation of appropriate control solutions, often in the absence of OELs, to reduce work-related exposures that may lead to occupational diseases, illnesses, and injuries. Recommendations on the use of qualitative risk assessment for prioritizing hazards, providing hazard communication and developing task-specific control-focused solutions would also be emphasized.

## **About Paul**

Industrial Hygiene Lead – MEA for Shell based in Dubai. Paul is from Canada and worked as a lab assistant at occupational hygiene laboratory prior to attending the University of Aberdeen, Scotland attaining a Master's degree in Occupational Hygiene where he developed a model to estimate skin exposure to metal-working fluids. Upon return to Canada, he worked as a Research Assistant at McMaster University and was involved in several research projects including the forestry industry and oil and gas across Canada. Joined Shell as a developmental hygienist to provide support during refinery turnaround, then as industrial hygienist at large oilsands mine in Northern Alberta before moving to Calgary as a senior industrial hygienist supporting various Shell businesses and projects in Canada.







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# THE ROLE OF INDUSTRIAL HYGIENE IN EMERGENCY RESPONSE



**Adokiye Michael, AFOH**

## **Education:**

Rivers State University  
B.Tech in Petroleum Engineering

## **Qualifications:**

BOHS Member, Hold W-Series Qualifications

## **About Michael:**

He is an Industrial Hygienist at Mobil Producing Nigeria with interest and professional experience in workplace health hazard identification, assessment and implementation of controls.

He works with a team of Industrial Hygienists to develop and deliver training programs for the overall benefit of the workforce across various Exxonmobil locations in Nigeria.

## **Abstract:**

In typical production environments such as the oil and gas industry, work activities are designed to happen in controlled and orderly manner, however, unexpected events could occur owing to a number of factors. Emergencies are unplanned events; that pose an immediate risk to health, life, property or environment. Responding to emergencies require adequate planning characterized by preparedness, availability of in-service equipment, personnel, as well as timely intervention. The ultimate role of the Industrial Hygienist in emergency response lies in protecting the response personnel by ensuring critical requirements such as availability of trained Industrial Hygienists with knowledge of emergency response processes, programs and procedures, availability of appropriately maintained and ready for use IH equipment, and any required medical surveillance, as well as field support.

This paper argues for adequate protection of emergency response personnel during an emergency and highlights the role industrial hygiene plays in controlling exposures to hazards by carrying out qualitative and quantitative assessments at site of incidence and also rendering advice and recommendations.



# NOISE CONTROLS IN BROWNFIELD FACILITIES: A CRITICAL REVIEW OF NOISE STUDIES IN AGEING FACILITIES



**Dr. Ken A. Osakwe**, MPH, CMFOH, CPE, PhD, FRSPH

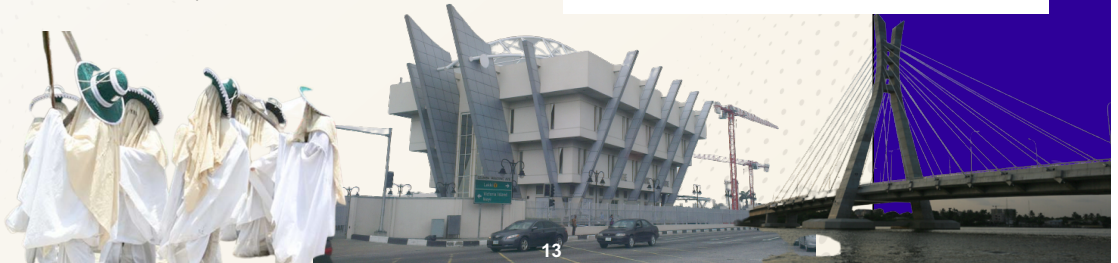
Program Manager & Senior Lecturer  
RMIT University, Melbourne, Australia.

## About Dr. Ken:

Kennedy is a diplomate of the British Occupational Hygiene Society (BOHS) and Chartered Occupational Hygienist with Masters Qualifications in Occupational Hygiene - MSc (University of Greenwich, UK), Occupational Health- MSc (Cardiff University, UK) and Occupational Medicine & Health -MSc (Edith Cowan University, Australia). He possesses an extensive expertise of over 22 years in Occupational Hygiene and Occupational Health in the Upstream oil industry. A skilled Health Risk Assessor; Exposure Monitoring Specialist and skilled user of Shell OneHealthIT tool. Has coordinated the regional delivery of occupational hygiene services in Shell Sub-Saharan Africa (Nigeria & Gabon). Has an operational grasp of Shell HSSE & SP Control Framework, United Kingdom Health and Safety regulations. He is currently a senior lecturer and a program manager at RMIT University, Australia. A motivated, resilient professional with a roll-up the sleeve mind-set to work.

## Abstract:

Chronic industrial noise from clusters of aging machinery in brownfield facilities pose significant budgetary and remedial challenge to workers health, businesses, and occupational hygienists. Across the globe, aging facilities constitute the industrial landscape as reduced fiscal regimen slims possibilities of newer and noiseless greenfield assets. Exposure to elevated sound pressure level from aging machinery predisposes workers to several health impacts including Occupational Noise Induced Hearing Loss (ONIHL). As businesses seek further reduction in the cost of operating expense (OPEX), annual support for hearing conservation program including rehabilitation of the hearing impaired will potentially wane. Deployment of higher order noise controls might potentially reduce the risk of noise exposure and invariably the cost of hearing conservation program. This paper seek to explore and present higher order noise control measures that could drastically minimize the risk of elevated sound pressure level and reduce the cost of managing noise in brownfield assets. A critical review of noise control recommendations in brownfield facilities. Higher order controls [HOC] are needed in the minimization of elevated SPL in brownfield facilities across industries. Mitigation of health impact from noise in aging facilities has substantially been hinged on hearing protection which remains a lower order approach with minimal and ephemeral result. Innovating bespoke higher order noise reduction solutions will further reduce incidence of health effects from noise exposure.





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# HOW BIG DATA, AI, AND MACHINE LEARNING ARE CHANGING THE EHS PROFESSION



**Ogoin-olem Oruene, AFOH**

## **Education:**

University of Ibadan

*MSc in Petroleum Geology/Sedimentology*

University of Nigeria, Nsukka

*BSc in Geology*

## **Qualifications/Certifications:**

W-Series Qualifications

Associate Member, British Occupational Health Society.

Active Member, Nigerian Association of Petroleum  
Explorationists

## **About Olem:**

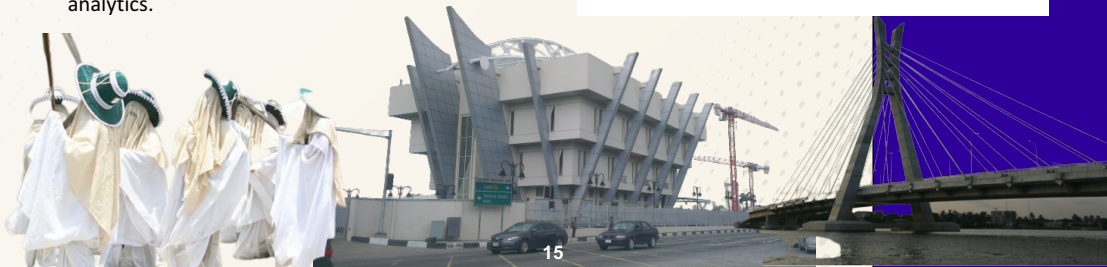
Olem has been with SPDC since 2017 as an Industrial Hygienist. She works with the Industrial Hygiene team which is an intrinsic arm of the Occupational Health department in Shell Health, Nigeria. The team is responsible for the management of health hazards through hazard identification, risk assessment and exposure controls design to mitigate health risks across assets, operations and projects in Shell Companies in Nigeria.

She also has technical expertise in air quality monitoring and management as well as data analytics.

## **Abstract:**

Big Data are diverse, complex, and massive scale data sets that require a set of techniques and technologies with new forms of integration and more efficient methods with high analysis accuracy to reveal insights. This is where Artificial Intelligence (AI) techniques such as Machine Learning (ML) come to play as they provide more precise, faster, and scalable outcomes in big data analytics. The advances in the use of sensor networks and the Internet of Things (IoT) technologies in various aspects of operations in companies has led to the gathering of large, diverse sets of EHS data that grow at exponential rates. Companies (early adopters) are gradually moving away from traditional EHS management systems that provide data after the fact to adopting new, and cheaper EHS work tools integrated with AI and ML which give real-time information and allow for predictive analytics. Examples of applications include: the connected worker, gathering of injury/illness data, image recognition, shift scheduling, and wellness programs. The datasets generated from these tools help with more accurate (smart) prediction of risks so they can be prevented, reduce costs associated with workplace injuries and non-compliance, identify problems in real time, support policy and process changes and identify opportunities for improvement. Despite their benefits, these technologies do not come without their own challenges.

As EHS Professionals, collaboration with internal AI resources (Data Scientists, IT, Data Engineers) is key to ensuring our visibility in projects and adopting and leveraging new technologies ensures we stay relevant with our stakeholders



# IH & SHE PROFESSIONALS – STRENGTHENING PARTNERSHIP & COLLABORATION



**Engr. Kayode V. Fowode, MNSE, FNISafetyE, CFIOSH**

## **Education:**

Middlesex University, London  
*MSc in Occupational Health and Safety*  
Federal University of Technology, Owerri  
*Bachelor's Degree in Mechanical Engineering*

## **Qualifications/Certifications:**

Chartered Fellow of IOSH; a Fellow of Nigerian  
Institution of Safety Engineers, and a COREN  
Registered Mechanical Engineer.

## **Interest:**

Kayode has active interest in writing articles on  
diverse OSH issues, speaking at conferences  
and mentoring young OSH professionals towards  
achieving the prestigious Chartered membership of  
IOSH.

## **About Kayode:**

Kayode pioneered the establishment of IOSH Nigeria  
Network Group and in 2018, he became the first  
African to be appointed into the IOSH Council and first  
African to be appointed as IOSH Vice President in  
2019.

He has extensive knowledge and experience in  
management system implementation, process and  
construction safety management, project safety  
management, safety leadership, training, research and  
publications. Kayode was recently elected as the Lagos  
Chapter Chairman of the Nigerian Institution of Safety  
Engineers and represented KEVRON at the recently  
concluded Nigerian Electricity Regulatory Commission  
(NERC) Consultative forum for the review of the  
Nigerian Electricity Health and Safety Code. He is a  
registered Consultant with Lagos State Safety  
Commission and a Visiting Lecturer/Researcher at The  
Center for Occupational Health, Safety & Environment  
(COHSE), University of Port Harcourt.

## **Abstract:**

Globally, businesses are required by law to manage  
the risks associated with their operations. These  
risks include occupational health, safety and  
environmental risks. Exposure to risk at work results  
in almost 2 million premature deaths per year and  
80% of this premature death are due to diseases and  
20% due to injury (WHO 2022).

This has significant impact on global economy as  
work-related health problems result in an economic  
loss of 4–6% of GDP for most countries and an  
increase in the average cost of the basic health  
services needed to prevent work-related diseases,  
ranging between US\$18 and US\$60 per worker  
(WHO 2017).

Research has demonstrated that workplace health  
initiatives can help reduce companies sick-leave  
absenteeism by 27% and health-care costs by 26%  
(WHO 2017).

This is why organizations are proactively integrating  
health, safety and environmental management into  
their corporate systems and decision-making  
processes. While there has been tremendous  
progress in safety and environmental management,  
more intervention is required in occupational health  
management.

The advancement in technology and continuous  
change in the world of work creates new risks that  
requires a multi-disciplinary approach to address  
these emerging risks. It is important that  
occupational health is given the right attention  
based on the work-risks current statistics indicating  
health risks as a key factor. Hence, the need to call for  
collaboration between Industrial Hygienists and SHE  
Practitioners to jointly address workplace risks.

The presentation will discuss the role of Industrial  
Hygienist and the need for collaboration with SHE  
Practitioners to jointly proffer solutions to  
workplace health and safety challenges. The  
principles of occupational hygiene and the  
application in real life project will also be discussed.

Furthermore, attendees will learn how  
organizations can reduce workplace health  
challenges through effective collaboration and  
proactive involvement of Industrial Hygienist at  
every project phase.

# Vitalograph®

Your cardio-respiratory partner



## Lung Monitors and Screeners

### Vitalograph asma-1 & asma-1 Child

The asma-1™ is a robust and low cost solution for the home monitoring of PEF and/or FEV1



- Test quality assessment
- FEV1 less effort dependent
- Child versions: PEF, FEV1, FEV0.5 & FEV0.75
- Measures % of personal best for PEF & FEV1
- Stores 600 test sessions
- BT and USB models available for Phase IV PMS Studios
- Blow quality and diurnal variation

### Vitalograph copd-6

The highly effective and reliable COPD screening device



- Displays FEV1, FEV6, ratio and % predicted, obstructive index, COPD classification and lung age
- Built-in quality of blow indicator
- Displays the GOLD COPD classification (stage-IV) to help recognize the need for a change in patient management plan
- BT and USB models available for Phase IV PMS Studios
- Weight, height, age and gender in-put

## Inhaler Training

**AIM™ (Aerosol Inhalation Monitor)** For effective inhaler training on dry powder and metered dose inhalers and validation of inhaler effectiveness

- Identifies correct choice of inhaler device type
- Identifies and quantifies poor inhaler technique
- Objective identification of proper use of the inhaler device
- Assists in training patients to use their inhalers correctly
- Provides clear feedback and instructions to patient and trainer
- Easy to use, hygienic and low cost



## Accessories and Consumables:

**Mouth Pieces, nose clips and calibration Syringes**



## Market Leading Spirometers

Maintenance and Calibration Services available



**ALPHA™ Touch**  
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**Pneumotrac™**  
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# MEDICAL SURVEILLANCE-PROVIDING CLARITY USING IH DATA



## About Israel:

Iroezindu Israel is the Medical Director Occupational Health Corporate and Industrial Medical Services-CIMS.

He has over 18 years post-graduation experience spanning across Oil and Gas, aviation, dredging, mining, marine, construction, metal fabrication and health management sectors.

Dr Israel worked with International SOS for 14 years in the capacity of Regional Medical Director Occupational Health -West Africa until Dec 2020 when he voluntarily disengaged.

He holds an MBBS degree from College of Medicine University of Nigeria, a Post Graduate Diploma in Business Management University of Port

## Dr. Iroezindu Israel

Harcourt and a Master of Science degree in Occupational Medicine from The University of Manchester. He is presently pursuing a PHD in Occupational and Environmental Health at the Institute of Public Health University of Nigeria. He has also received other professional certifications that have reflected in his strong background in occupational health, Corporate Health and hospital management, emergency and clinical medicine, offshore, remote site, dive medicine, ergonomics and functional capacity evaluation.

## Abstract:

**MEDICAL SURVEILLANCE-Providing Clarity using IH Data** Medical surveillance (MS) is defined as periodic or ongoing scope specific medical examination(s) and tests targeted at potentially and or similarly exposed work force with an aim to prevent, or detect (early) work related, exposure, illness and diseases. MS techniques include questionnaires, physical examinations, diagnostic aids like chest films, pulmonary function test, audiometric evaluations, biological monitoring, and biological effect monitoring.

MS detects exposure, uptake of exposure and biological effect. MS findings are useful score card on the efficacy of implemented controls.

MS must function within the context of a comprehensive, complimentary, and collaborative programme that receives and feeds back on other disciplines and control measures especially industrial hygiene (IH).

Inefficient communication between MS and IH result in undesirable outcomes ranging from anxiety to conflict, lack of confidence, distrust, waste of resources and programme failure.

Technological advancement migrated IH data into the big data system defined by 'five Vs' parameters: volume, velocity, variety, veracity, and value. There are increasing opportunities for clearer and time dose association between MS outcomes and specific occupational exposures. There is also a crying need for IH data standardization to achieve consistency, error reduction, efficient analysis, and specific correlation with MS outcome.

Since 1993 ACGIH and AIHA are placing strong emphasis on data quality and standardization. Data quality appendix has been included in 2015 edition of 'Strategy for Assessing and Managing Occupational Exposures'.

The future of IH data is saddled with brilliant expectations and responsibilities in terms of technological and analytical advancement matched against increasingly emerging workplace hazardous agents. A standardized high quality IH data will provide the variety, veracity and value required for advancing medical surveillance from secondary to primary prevention.

To protect present and future workforce a correct, cohesive and smarter surveillance system with synergistic in put between MS and IH is recommended.

# Kenbridge Industrial Consulting Ltd

A leading industrial hygiene consulting firm with world class services & experts (CIH-AIHA, CMFOH-BOHS, COH-AIOH). We have premium, value products & provides cutting-edge solutions in any organisation.



## Our premium services

- Occupational hygiene professional training: W-series [201, 502, 503, 505, 506, 507], CIH and iCert preparatory training.
- Occupational hygiene equipment & manpower supply
- Risk Assessments including Health Risk Assessment
- Occupational hygiene calibration services
- Noise solutions including Surveys, Mapping, Audiometry, Protectors, Acoustic abatement, Training, Equipment supply, Vibration risk assessment & Hearing Conservation Program
- Chemical exposure monitoring including Benzene, Toluene, Ethyl Benzene, Xylene, Mercury, H<sub>2</sub>S, VOC & more
- Dust monitoring including Respirable & Inhalable dust monitoring, Asbestos management, Particulate monitoring [PM<sub>1</sub>, 2.5, 4 & 10].
- Indoor Air Quality: TVOC, PM, Temp, RH, Ventilation & more
- Radiation monitoring & management – Radiation dosimetry, NORM, Radon Gas Survey
- Biological sampling & monitoring: Legionella & mould risks and more
- Water and catering sampling and analysis: physico-chemical, coliforms and more
- Ergonomic Risk Assessment and solutions
- Occupational Health inspections: Accommodation, Site, Catering, Project & Office inspections.
- Occupational hygiene assessments: Ventilation, Illumination & Heat

**Hurrah!** - Kenbridge now provide Occupational hygiene training in the UK, India, UAE, Kuwait, Oman & Qatar

**Contact** - [Kenbridge.industrial@gmail.com](mailto:Kenbridge.industrial@gmail.com) , Phone: +6121622248; +2348035648990 [WhatsApp], Website: [Kenbridgegroup.com](http://Kenbridgegroup.com)





## **Occupational Health & Safety Consultancy Services:**

Our offerings include:

Noise area surveys, control/ machinery surveys, noise mapping, modelling, Hearing protection devices (HPD) assessments, and noise risk assessments



Health Risk Assessments covering chemical, physical and biological agents; Exposure Assessments (Benzene, BTEX, Mercury, Dusts, NORM, Welding Fumes, Radon gas, Hand-arm vibration, Legionella, etc); Assessing effectiveness of engineering controls; Designing and providing Industrial Hygiene/ Occupation Health Monitoring programs.

HVAC assessments (Fan Coil Units, Fresh Air Handling Units, etc) duct inspections; Indoor air quality assessments for VOCs, Carbon dioxide levels, thermal comfort, indoor light, noise levels, bioaerosols (molds, etc).



### **Asbestos Surveys**



We provide Asbestos management surveys and Refurbishment & Demolition Surveys. We also provide asbestos risk assessments and air sampling (background sampling and clearance test).

### **Other services provided include:**

- Ergonomic Assessments
- Provision of Radiation Safety Advisers

# APPROACH TO HEALTH RISK ASSESSMENT – REVIEW OF IOGP



**Matthew Olota, CMFOH, CIH, CSP**

## **Education:**

University of Portsmouth

*MSc in Occupational and Environmental Health and Safety Management*

University of Ilorin

*Bachelor's Degree in Mechanical Engineering*

## **Qualifications/Certifications:**

Chartered Member, British Occupational Health Society.

Certified Industrial Hygienist, American Board of Industrial Hygiene.

Certified Safety Professional, Board of Certified Safety Professionals.

## **About Matthew:**

Lead Industrial Hygienist at ExxonMobil. A Chartered Member of the British Occupational Hygiene Society, a CIH and a Certified Safety Professional (CSP) with vast experience in Health and Safety in Manufacturing as well as the Oil and Gas business. A specialist in exposure evaluation and control with special interest in industrial ventilation. Highly skilled in Occupational Health Administration.

## **Abstract:**

International Petroleum Industry Environmental Conservation Association (IPIECA) is the global oil and gas association dedicated to advancing environmental and social performance across the energy transition. It brings together members and stakeholders to lead in mainstreaming sustainability by advancing climate action, environmental responsibility and social performance across oil, gas and renewables activities.

IPIECA was founded at the request of the United Nations Environment Programme in 1974. Through its non-lobby and collaborative approach IPIECA remains the industry's principal channel of engagement with the UN.

IPIECA in collaboration with International Association of Oil and Gas Producers (IOGP) has recently updated her guidance on Health Risk Assessment process, the IOGP-IPIECA Health Committee and Occupational Hygiene Subcommittee consider this guidance essential for optimal health risk assessment (HRA) and management within a health, safety, and environment (HSE) management program.

This update addresses the incorporation of health risk management and its wider management in a company's business and HSE management system, as well as the application of the HRA and management process for all activities and health hazards within the oil and gas industry.

This presentation aim to promote the IOGP Report 384; highlight key HRA process with focus on the new recommended approach; to drive home the concepts; there will be a brief workshop at the back end of the presentation.



# ASSESSMENT OF CHEMICAL EXPOSURES BEYOND OCCUPATIONAL EXPOSURE LIMITS – THE WELDING FUME EXAMPLE



**Gloria Ayodeji-Fapohunda, CMT, MISPON, Grad IOSH**

## **Education:**

University of Portsmouth  
*MS, Occupational Health, Safety and Environmental Management*  
University of Benin  
*Master's Degree, Exploration Geophysics*  
*Bachelor of Science, Industrial Physics*

## **About Gloria:**

She is a Certified Master Trainer with an excellent aptitude for mentoring and coaching. She has a track record of coaching and working with indigenous companies helping to set them on the right course regarding their safety culture; She has received several formal recognitions for her work in this regard.

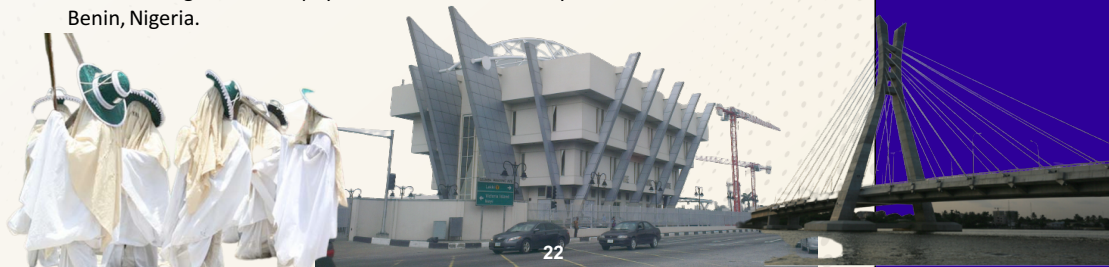
She has held diverse specialized safety roles in different industry sectors in her over 17 years career as a safety professional, and is currently working as an Industrial Hygiene Specialist in the oil and gas sector. She earned a Master's Degree in Occupational Health, Safety and Environmental Management from the University of Portsmouth, United Kingdom in 2011. She also holds a Master's Degree in Geophysics from the University of Benin, Nigeria.

## **Abstract:**

Chemical exposures in the workplace are monitored and evaluated against established occupational exposure limits (OELs) to determine the level of potential exposure and adequacy of safeguards. Occupational exposure limit is the limit to which a worker can be exposed without the occurrence of an adverse health effect. This is usually done for individual agents of concern. Most often than not, workers' exposures are to a cocktail of chemical agents or substances simultaneously and not to a single chemical agent in isolation.

There are several empirical evidence that adverse health effects arise from exposure to substances below their stipulated OEL when they are present with other chemical agents with similar mechanism of action.

This paper argues for the need to focus on the cumulative toxic effects from multiple chemical exposure, using welding fumes as an example, rather than on the prevalent practice of focusing on specific agents in relation to their respective OELs.



## Dinner – Program of Event

1. Opening Prayer
2. Introduction of Guests
3. Some opening words – BOT chair
4. Soft music and networking
5. Short speeches
6. Presentation of Awards
7. Let's eat
8. Cutting of our Conference cake
9. Toast
10. Vote of Thanks

## LOC Members:

*Special thanks goes to the following local organizing committee members:*

1. Charles Ameh – Chairman
2. Abidemi Akinde – Secretary
3. Adokiye Michael – Financial Secretary
4. Loveth Bankole - Event Coordinator
5. Olubunmi Ojo – Publicity
6. Emmanuel Bello – Publicity
7. Echi Igbara – Registration Coordinator
8. Matthew Olota – AIHN President



## Diagnostic Audiometers and Tympanometers

### Model 260

The Amplivox 260 audiometer incorporates many innovative features which makes it the ideal choice for conducting diagnostic audiometry. Specifically designed for operator ease of use and with a weight of just 830g, the Amplivox 260 is very portable.



### Model 240

The Amplivox 240 is a cost-effective diagnostic audiometer, which is ideal for both desktop and mobile use. The It offers air and bone conduction audiometry standard features include an automatic test function (AC), narrow band masking, an attenuator range up to 120dBHL and an integral talkover function.



### Model 270

The Amplivox 270 is a two channel diagnostic audiometer that excels in the critical areas of technology, ergonomics and ease of use. A comprehensive specification including several clinical tests transducer output choices and test result recording options together with unsurpassed product reliability is made possible.



### Otowane 202 & 202-H

The Otowane 202 range is designed to help hearing healthcare professionals identify middle ear disorders such as otitis media or infections associated with the eustachian tube in young children and is the ideal choice for paediatric doctors and audiologists who provide require mobile medical services.



### Model 270+

The ergonomic design of the Model 270+ is created with the user in mind and can provide an improved patient consultation experience and reduced test times. Using the dedicated soft key layout, you can sequentially step through test routines and data management options with ease



### Otowane 102-1, 102-4

The Amplivox Otowane is shaped for success in accurate middle ear measurements. Elegantly shaped to follow the contours of a hand and with a perfect weight distribution, tests can be completed with condence and accuracy.



## Otowane 302 & 302+ COMPACT AND SPACE SAVING DESKTOP

### Otowane 302 & 302+

The Otowane 302 and 302+ desktop tympanometers are designed for fast and accurate middle ear measurements for audiology, ENT and primary care. Thanks to their small footprint, these devices will find a place anywhere in your facility.



## Screening Audiometers

### Model 116

Our portable, manual screening audiometer designed for fast and efficient screening. It is used by primary care professional around the world.



### Model 170

A cost effective screening audiometer with both manuals and automatic test functions



### PC850

PC based audiometer that will automatically measure and categorise hearing levels



### 2505 Acoustic Booth



2505 Acoustic Booth  
Designed to use as little space as possible, the 2505 acoustic booth is still comfortable for your patient and comes with wheels for portability.

### Otosure

The Amplivox Otosure provides a reliable and robust "plug and play" solution that can be used with any windows operating based system that is Windows 7 and onwards.



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