



JAMAICA
INSTITUTION OF
ENGINEERS

Presents
ENGINEERS'
WEEK
2023

September 17 - 23
THE SUMMIT, Kingston, Jamaica

**“Engineering: Driver of
Manufacturing, Production,
Economic Growth and Health”**



Message from the President

JAMAICA INSTITUTION OF ENGINEERS

It is indeed an honour to welcome all participants to the 2023 Engineers' Week Conference, this September 17-23, 2023, hosted by the Jamaica Institution of Engineers (JIE) under the theme "Engineering – Driver of Manufacturing, Production, Economic Growth and Health."

JIE Engineers' Week conference brings together engineers and professionals from various industries, academia and government to present and discuss the latest opportunities, challenges, solutions and innovations in engineering. This conference seeks to showcase the works and impact that Engineering has on the different industries such as Manufacturing, Production & Operations, Financial Sector, Education, Entertainment and HealthCare to name a few, in order to improve our economy and build financial security and in a more micro sense, to improve the standard of living for the average Jamaican.

The JIE Engineers' Week is a continuation of our mandate to promote and encourage the general advancement of the engineering profession and the practice and science of engineering to facilitate the exchange of information and ideas among the members of the institution and our public.

JIE is very cognisant of its role in the development of the young minds within the Education Sector through the application and emphasis of science, technology, engineering, arts and mathematics, known as the STEAM technique.

The conference will also highlight the young minds through a competition entitled "Engineering Creativity through Design Thinking". These students will be challenged to use these tools to solve problems, create innovations and to improve the quality of life.

JIE's charge to the Engineers and other key stakeholders in the different sectors and industries is to invest in research and development and to use engineering technology, especially computing, in development of different products, more efficient processes and methodologies and improved financial benefits.

The JIE Engineers' Week Conference provides an ideal place and setting for engineers, professionals, and like-minded individuals to connect, share ideas and stay informed of current trends, innovative technologies and gain professional success.

Special thanks to all our Sponsors, authors, reviewers and presenters for their contributions and participation as the conference would not be possible without your sterling contribution.

The organization and the success of the conference depends on the efforts of all and the JIE is extremely grateful to the members of the Engineers' Week Committee for their devotion, dedication in ensuring the expected quality and standards are met.

We look forward to a captivating and fulfilling JIE Engineers' Week 2023.

Godfrey Boyd, PE, JP
President,
Jamaica Institution of Engineers

Message from the Engineers' Week 2023 Chairperson

JAMAICA INSTITUTION OF ENGINEERS



As we embark on Engineers' Week 2023, I would first like to express my appreciation and gratitude towards the Engineers' Week Committee for their efforts, dedication, and unwavering support during the planning of this week.

JIE Engineers' Week serves as a reminder of the impact and importance of Engineers and as the theme suggests, Engineers continue to be the drivers of manufacturing, production, health, economic growth and welfare in a society.

This week offers an opportune time for us to network, share knowledge, foster continued education, and to collaborate with experts and even young minds under one roof. The week also allows us to promote professional integrity and continue to preserve the high standard of work within the engineering field, thus protecting this noble profession.

As such, the Committee has gathered a variety of industry leaders, innovators, and academics to assist the JIE to advance the knowledge of our members, and public at large of the various technologies and developments within the engineering and science related field. Therefore, the week will feature presentations on new technologies such as, JAM-DEX ® - new Jamaican digital currency, advances in telecommunication, automated systems, remote sensing, renewable energy and other energy sources such as nuclear energy in Jamaica. Advances in infrastructure development will also be highlighted such as, improvements in transportation systems, impact of climate change on the engineering profession, green infrastructure and sustainable construction. The week will also feature best practices in procurement and contract administration. Maintenance engineering, once again, will be emphasized, as it cannot be stressed enough the need to maintain the various technologies, equipment, and infrastructure for a continued successful product.

The Committee is looking forward to fruitful discourse and a successful event. We want to thank all the attendees, presenters, and sponsors for your participation in this week. Your presence has certainly solidified your interest in JIE's mantra of *continuing to promote the science and practice of engineering*.

Melissa Townsend, PE
Honorary Secretary & JIE Engineers' Week 2023 Chairperson
Jamaica Institution of Engineers

Engineers' Week 2023 Committee

Melissa Townsend, PE (Chairperson)	Colin Porter, PE	Kishawna Bell	Oneil Josephs
Godfrey Boyd, JP	Dwayne Coley	Leighton Ellis, PE	Romaine Smith, PE
Anthea Newman, PE	Gary Walters, PE	Marvin Campbell, PE	Shauna-Kaye East Bevan, PE
Aston Stephens, PE	Jhanelle Crawford	Michael James	Steve Johnson, PE
Balvin Thorpe, PE	Kadeisha Cooper	Nickoe Boothe-Thompson, PE	Karla Brackett
Christopher Burgess, PE	Kevin Henry, PE	Norman Tai, PE	Marcia Erskine
			Shamoya Thomas

8:30 am - 9:00 am **REGISTRATION**

9:00 am - 9:20 am **OPENING CEREMONY**

Welcome

Melissa Townsend - Chairperson, JIE
Engineers' Week 2023

Prayer

Nickoe Boothe-Thompson - AAIC Division
Chairperson, JIE

Greetings

Godfrey Boyd - President, JIE

Glaister Ricketts - Chairperson, Professional
Engineer Registration Board (PERB)

9:20 am - 9:40 am **Opening Speaker's Address**

Dr. The Honorable Minister Nigel Clarke,
Minister of Finance & Public Service

9:40 am - 10:15 am **BOOTH WALKTHROUGH & BREAK**

10:15 am - 10:50 am **JAM-DEX® - Central Bank Digital Currency
- Solution to Efficiency, Productivity,
Economic Growth & Financial Inclusion in
Jamaica**

Natalie Haynes - Deputy Governor, Bank of
Jamaica

10:50 am - 11:25 am **COVID-19 and Flow's Response to Increase in
Demand of Remote Work & School Life**

Stephen Price - Vice President & General
Manager - FLOW, Flow Business and C&W
Business in Jamaica

11:25 am - 12:00 pm **Revolutionizing Agriculture with Smart
Farming - Automated Systems and Processes**

Yekini Wallen-Bryan - CEO, PreeLabs Ltd

12:00 pm - 12:35 pm **Remote Sensing & Monitoring - Water Level
Management of the Mona Reservoir**

Brian Bailey - Operations Director, Innovera

12:35 pm - 1:35 pm **LUNCH**

TECHNOLOGY

Morley
September 18, 2023



- 1:35 pm - 2:10 pm** **Green Infrastructure for Urban Sustainability: Issues, implications, and Solutions for Underdeveloped Areas in Jamaica**
Romaine Smith - Executive Engineer, Peter Jervis & Associates
- 2:10 pm - 2:45 pm** **Seismic Operations to Discover Crude Oil and Other Mineral Resources (LNG) in Jamaica**
Christopher Udeagha - IEEE Senior Member, Senior Lecturer, School of Computing & Information Technology, University of Technology, Jamaica
- 2:45 pm - 3:20 pm** **The Impact of “throw ups” on the Cost of Electricity and Jamaica’s Productivity**
Noel A Sinclair - Electrical Engineering Consultant
- 3:20 pm - 3:55 pm** **Is Nuclear Energy Generation in Jamaica Safe? - True or False**
Charles Grant - Director General Professor, Head of Nuclear Analytic Lab- Research Scientist, UWI Mona
- 3:55 pm - 4:30 pm** **Pathways to Climate Change Mitigation and Stable Energy by 100% Renewable for a Small Island: Jamaica as an example**
Aston Stevens - Electrical Engineering Consultant
- 4:30 pm - 6:00 pm** **NETWORKING SESSION**

INFRASTRUCTURE DEVELOPMENT

September 19, 2023

Tuesday

8:30 am - 9:00 am	REGISTRATION
8:45 am - 9:00 am	WELCOME
9:00 am - 9:35 am	The Mahogany Vale Project - Introduction to More Green Energy and the Government's Integrated Resource Plan The Honourable Matthew Samuda - Minister without Portfolio, Ministry of Economic Growth and Job Creation
9:35 am - 10:10 am	Impact of Climate Change on the Engineering Profession Dr. David Smith - Director of Research & Innovation, Smith Warner International Limited
9:50 am - 10:10 am	PRESENTATION NCB INSURANCE AGENCY & FUND MANAGEMENT
10:10 am - 10:25 am	BREAK
10:25 am - 10:45 am	DEMONSTRATION SJE CONSULTANTS LIMITED
10:45 am - 11:25 am	Performance Specifications for Road Surfacing in Jamaica Nicholas McMorris - Director, Chief Engineer, MSR Engineers
11:25 am - 12:05 pm	Common Roadway Design Challenges of Brownfield Sites Demali Cohen - Design Engineer, SJE Consultants Ltd.
12:05 pm - 12:45 pm	Developing a Sustainable Ground Transportation System for Jamaica. Noel A Sinclair - Electrical Engineering Consultant
12:45 pm - 1:45 pm	LUNCH
1:45 pm - 2:25 pm	Container Homes - Design of Stylish, Sustainable and Low Cost Housing Camille Douglas Stephenson - President, Jamaica Institute of Architects
2:25 pm - 3:05 pm	From Multi-Storey to High-Rise building - 9 Control Indicators for Concrete Structural Design Result Luo Ming - Senior Engineer & Consultant, Ming's Reliable Building Consultants Co.ltd
3:05 pm - 3:45 pm	Effects of Earthquakes on High Rise Buildings Peter Jervis - Principal, Peter Jervis & Associates
3:45 pm - 4:25 pm	Fault lines and Other Geological Formations in Jamaica and its Impact on Infrastructure Development Simon Mitchell - Professor of Sedimentary Geology and Research Director at the Earthquake Unit, University of the West Indies, Mona
4:30 pm - 6:00 pm	NETWORKING SESSION

MAINTENANCE

ENGINEERING WORKSHOP September 20, 2023



8:30 am - 9:00 am	REGISTRATION
9:00 am - 9:35 am	WELCOME
9:35 am - 9:50 am	DEMONSTRATION NATIONAL SUPPLY
9:50 am - 10:05 am	BREAK
10:05 am - 10:20 am	DEMONSTRATION ARC MANUFACTURING LTD.
10:20 am - 10:35 am	DEMONSTRATION EDGE CHEM JAMAICA
10:35 am - 11:20 am	Equipment Efficiency and the Specification for Electro-Mechanical Equipment Jeremy Wilson - Electrical Engineer, National Water Commission
11:20 am - 12:05 pm	How to Leverage your HVAC System to Create a Healthy IAQ Environment Colin Roberts - Director of Customer Relations, CAC 2000
12:05 pm - 12:50 pm	Maintenance of Medical Equipment Jordan Spence - Field Engineer, Arel Ltd
12:50 pm - 1:50 pm	LUNCH
1:50 pm - 2:05 pm	DEMONSTRATION DELTA SUPPLY
2:05 pm - 2:20 pm	DEMONSTRATION BH PAINTS
2:20 pm - 3:05 pm	Maintenance of Household & Commercial MEP Systems Hugh Gordon - Managing Director, HTG Engineering Consultants Ltd
3:05 pm - 3:50 pm	Use of the IMAJ Building Rates Richard Mullings, 1st Vice President, Incorporated Master Builders Association of Jamaica (IMAJ)
3:50 pm - 4:35 pm	Optimization of Asset Management by Engineers Kishore Jhagroo - Lecturer, Co-Coordinator-MSc Engineering Asset Management (EAM) Programme, UWI, St. Augustine
4:30 pm - 6:00 pm	NETWORKING SESSION

Thursday, September 21, 2023 - Student Design Thinking Competition

Friday

September 22, 2023

PROCUREMENT & CONTRACT ADMINISTRATION

8:30 am - 9:00 am	REGISTRATION
8:45 am - 9:00 am	WELCOME
9:00 am - 9:45 am	Procurement Best Practices Andrei Bennett - Chief Public Procurement Policy Officer, Ministry of Finance & Public Service
9:45 am - 10:30 am	Changes to the Professional Engineers Registration Act (PERA) Glaister Ricketts - Chairman, Professional Engineers Registration Board (PERB)
10:30 am - 10:45 am	BREAK
10:45 am - 11:00 am	PRESENTATION PROVEN INVESTMENTS
11:00 am - 11:45 am	Role of the Engineer under FIDIC Contracts Dr. Wayne Reid - Director, Jentech Consultants Limited
11:45 am - 12:30 pm	FIDIC Contract Administration Dr. Leighton Ellis - Managing Director, Alvair Services Inc limited
12:30 pm - 1:30 pm	LUNCH
1:30 pm - 2:15 pm	St. Thomas Highway Project – Lessons Learnt for the Engineering & Construction Industry Jamel Banton - Managing Director, Smith Warner International Limited
2:15 pm - 3:00 pm	Best Practices for Price Adjustments of Contracts Dean Burrowes - Arbitrator, Quantity Surveyor, Burrowes & Wallace
3:00 pm - 3:45 pm	Contract Provisions for Effective Implementation Ryon Edwards - Quantity Surveyor, Vision Projects Ltd.
3:45 pm - 5:00 pm	NETWORKING SESSION

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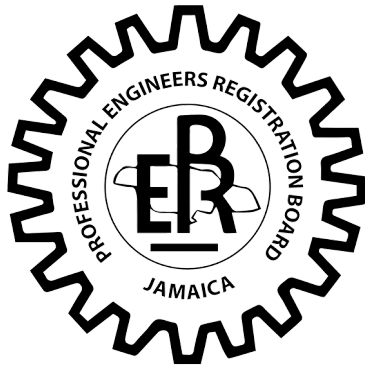




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