



2024

FORECAST

"Advancing Science & Technology Innovation for National & Regional Development"



AUGUST 14 - 16 2024

Website: <https://forecastconference2024.org/>

Our Sponsors:



DAY 0: TUESDAY AUGUST 13, 2024

5:00 - 7:00 p.m.
(6:00 - 8:00 p.m. ET)

Cocktail (Amphi Theatre, Shared Facilities)

Moderator: Dr. Andre Coy

Welcome

Professor Samson Omoregie, Dean, Faculty of Science and Sport, University of Technology, Jamaica

Overview of the conference

Dr Curtis Busby-Earle, Co-Chair, Organizing Committee, FORECAST Conference

Cocktail

Light music entertainment

UWI Panoridim Steel Orchestra

Closing Remarks

Mr Damian Nesbeth, Chair, Logistics & Programming Subcommittee, FORECAST Conference



DAY 1: WEDNESDAY AUGUST 14, 2024

8:00 – 9:00 a.m. (9:00 - 10:00 a.m. ET)	Registration
9:00 – 10:30 a.m. (10:00 - 11:30 a.m. ET)	<p style="text-align: center;">Opening Ceremony (LT-50) Chair: Dr. Peter Ruddock</p> <p>Welcome and Introductory Remarks <i>Dr Marcia Blair-Thomas, Chair, Organizing Committee, FORECAST Conference</i></p> <p>Greetings <i>Dr Kevin Brown</i> <i>President, University of Technology, Jamaica</i></p> <p><i>Professor Marvin Reid</i> <i>Deputy Principal, The University of the West Indies, Mona</i></p> <p><i>Professor Winston Moore [Online]</i> <i>Deputy Principal, The University of the West Indies, Cave Hill</i></p> <p><i>Professor Paloma Mohamed [Online]</i> <i>Vice Chancellor, University of Guyana</i></p> <p>Introduction of Keynote Speaker <i>Professor Michael Taylor, Dean, Faculty of Science and Technology, The University of the West Indies, Mona</i></p> <p>Keynote address: Frontiers of Research in Caribbean Science and Technology (FORECAST) 2024 Conference <i>Hon. Fayval Williams, Minister of Education and Youth</i> <i>(Representing the Prime Minister of Jamaica)</i></p> <p>Vote of Thanks <i>Dr. Curtis Busby-Earle, Co-Chair, Organizing Committee, FORECAST Conference</i></p>
10:30 – 10:50 a.m. (11:30 - 11:50 a.m. ET)	COFFEE BREAK

<p>10:50 – 11:50 a.m. (11:50 - 12:50 p.m. ET)</p>	<p>PLENARY SESSION 1 (LT-50)</p> <p>Chair: Gunjan Mansingh</p> <ul style="list-style-type: none"> ● Unlocking the Power of Gen AI for applications and economic development of the Caribbean <i>Pat Tomlinson, Country Leader, IBM World Trade Corporation, Jamaica Branch</i>
<p>11:50 – 12:10 p.m. (12:50 - 1:10 p.m. ET)</p> <p>12:10 – 12:30 p.m. (1:10 - 1:30 p.m. ET)</p>	<p>SESSION 1: ADVANCING BIOTECHNOLOGY (LT-50)</p> <p>Chair: Gunjan Mansingh Co-Chair: Desireina Delancy</p> <ul style="list-style-type: none"> ● A Rapid and Efficient Method for Monitoring the Growth of Mycelium in Psilocybin Containing Fungi: Determining Optimum Liquid Cultivation Media <i>Kimberley Foster, The University of the West Indies, Mona</i> ● <i>Nocardia iowensis</i> DSM 45197T: A Bacterium with an Interesting Past, Present and Future [Online] <i>Andrew Lamm, University of Technology, Jamaica</i>
<p>12:30 – 1:30 p.m. (1:30 - 2:30 p.m. ET)</p>	<p>LUNCH BREAK</p>
<p>1:30 – 2:30 p.m. (2:30 - 3:30 p.m. ET)</p>	<p>PLENARY SESSION 2 (LT-50)</p> <p>Chair: Tannecia Stephenson</p> <ul style="list-style-type: none"> ● The Growing Challenge of Climate Change and The Role of Sustainable Development [Online] <i>Trent Ford, Illinois State Climatologist and Assistant Scientist, Illinois State Water Survey, Urbana-Champaign, Illinois</i>
<p>2:30 – 2:50 p.m. (3:30 - 3:50 p.m. ET)</p>	<p>AFTERNOON BREAK</p>

<p>2:50 – 3:10 p.m. (3:50 - 4:10 p.m. ET)</p> <p>3:10 – 3:30 p.m. (4:10 - 4:30 p.m. ET)</p> <p>3:30 – 3:50 p.m. (4:30 - 4:50 p.m. ET)</p> <p>3:50 – 4:10 p.m. (4:50 - 5:10 p.m. ET)</p>	<p>SESSION 2: ADVANCING SCIENCE (LT-49)</p> <p>Chair: Vanessa Dillon Co-Chair: André McGlashan</p> <ul style="list-style-type: none"> ● Beyond Visual Inspection: A Comprehensive Approach to Assessing Firefighter Turnout Gear Post-Fire using Portable Raman Spectroscopy <i>Dawin Morna, The University of the West Indies, Mona</i> ● Analysis of the Jamaica Stock Exchange Trends using Mathematical Models <i>Tamika Royal-Thomas, The University of the West Indies, Mona</i> ● The Shooting Star Catcher: A Prototype of an Affordable Machine Learning Based all Sky Camera System for Meteor Detection. <i>Jevaughn Dixon, The University of The West Indies, Mona</i> ● Thermodynamics of Native Defects in Beta-Silver Selenide Thermoelectric Material <i>Olha Shyiko, The University of West Indies, Mona</i> 	<p>SESSION 3: ADVANCING TECHNOLOGY (LT-50)</p> <p>Chair: Zeyar Min Co-Chair: Karlus Redway</p> <ul style="list-style-type: none"> ● Towards Speedup in Internet of Things Networks Using Multiple Fungible and Non-Fungible Paths <i>David White, University of Technology, Jamaica</i> ● A Dynamic Highlight Function for The Brightstart Reading Tutor [Online] <i>Jared Heeralal, The University of the West Indies, St. Augustine</i> ● Enhancing Pronunciation in Trinidadian English Synthesis: Leveraging DTTE/C and IPA notation [Online] <i>Keshan Moosai, The University of the West Indies, St. Augustine</i> ● Using AI to Navigate Qualitative Analysis: Impacting Research Culture at UTech, Jamaica <i>Debbie Devonish, Valrie McKenzie University of Technology, Jamaica</i>
<p>4:10 – 5:00 p.m. (5:10 - 6:00 p.m. ET)</p>	<p>POSTER SESSION (CORRIDOR BEHIND LT-48 & LT-49)</p> <p><i>Posters should be posted on the poster boards by 1:30 p.m. on Day 1.</i></p>	

DAY 2: THURSDAY AUGUST 15, 2024

8:00 – 9:00 a.m. (9:00 - 10:00 a.m. ET)	Registration	
9:00 – 10:00 a.m. (10:00 - 11:00 a.m. ET)	<p>PLENARY SESSION 3 (LT-50)</p> <p style="text-align: center;">Chair: Adonna Jardine-Comrie</p> <ul style="list-style-type: none"> ● Food Security and Nutrition: The Role of Science and Technology Innovation [Online] <i>Soroush Parsa, Food and Agriculture Organization (FAO) Science & Innovation Officer, FAO Regional Office, Chile</i> 	
10:00 – 10:20 a.m. (11:00 - 11:20 a.m. ET)	COFFEE BREAK	
<p>10:20 – 10:40 a.m. (11:20 - 11:40 p.m. ET)</p> <p>10:40 – 11:00 a.m. (11:40 - 12:00 p.m. ET)</p> <p>11:00 – 11:20 a.m. (12:00 - 12:20 p.m. ET)</p>	<p>SESSION 4: ADVANCING HEALTH CARE (LT-49)</p> <p style="text-align: center;">Chair: Sacha Campbell Co-Chair: Lanceford Sterling</p> <ul style="list-style-type: none"> ● Unlocking the Mechanism of Oleic Acid and Succinic Acid: A Dynamic Duo for Combating Type 2 Diabetes in Sprague-Dawley Rats <i>Kemmoy Lattibeaudiere, University of Technology, Jamaica</i> ● A Comprehensive Evaluation of The Task Group 119 Protocol for Intensity Modulated Radiation Therapy Commissioning with a Thermo-Luminescent Dosimeter Gelatin [Online] <i>Barrington Brevitt, The University of The West Indies, Mona</i> ● Distribution of Cancer of the Brain in Jamaica 2008 <i>Laten Mclish, University of Technology, Jamaica</i> 	<p>SESSION 5: ADVANCING SCIENCE (LT-50)</p> <p style="text-align: center;">Chair: Alexa Redway Co-Chair: Rochelle Daley</p> <ul style="list-style-type: none"> ● Status of Surface Water at Three Selected Areas of Coastal Guyana (South America) and The Treatment of the Respective Water with a Suitable Adsorbent. [Online] <i>Raymond Compton Jagessar, University of Guyana</i> ● STI for National & Regional Development - What does that mean for Caribbean Territories? [Online] <i>Andrea Barrett, University of Technology, Jamaica</i> ● Using Digital Technology to Augment Access to Natural Heritage <i>Suzanne Davis, Natural History Museum of Jamaica</i>

<p>11:20 – 12:20 p.m. (12:20 - 1:20 p.m. ET)</p>	<p>WORKSHOP 1 (LT-49)</p> <p>Chair: Peter Nelson</p> <p>Bridging the Gap between Research and Industry for Real-World Impact <i>Paul Suite, Analogic Solutions</i></p>	<p>WORKSHOP 2 (LT-50)</p> <p>Chair: Debbie Devonish</p> <p>Research Ethics & Data Protection: Implications for research <i>Copeland Stupart, Patricia Robinson and Gillian Mignott, University of Technology, Jamaica</i></p>
<p>12:20 – 1:20 p.m. (1:20 - 2:20 p.m. ET)</p>	<p>LUNCH BREAK</p>	
<p>1:20 – 2:20 p.m. (2:20 - 3:20 p.m. ET)</p>	<p>PLENARY SESSION 4 (LT-50)</p> <p>Chair: Marcia Blair-Thomas</p> <ul style="list-style-type: none"> ● Jamaica, the Wakanda of the Caribbean: Building Innovative Health Technologies for Spine Surgery and beyond <i>Kingsley Chin, CEO of Kingsley Investment Company, Former Chief Spine Surgeon, Penn Medicine, University of Pennsylvania Health System</i> 	
<p>2:20 – 2:40 p.m. (3:20 - 3:40 p.m. ET)</p> <p>2:40 – 3:00 p.m. (3:40 - 4:00 p.m. ET)</p> <p>3:00 – 3:20 p.m. (4:00 - 4:20 p.m. ET)</p> <p>3:20 – 3:40 p.m. (4:20 - 4:40 p.m. ET)</p> <p>3:40 – 4:00 p.m. (4:40 - 5:00 p.m. ET)</p>	<p>SESSION 6: ADVANCING AGRICULTURE (LT-50)</p> <p>Chair: Marcia Blair-Thomas Co-Chair: Marco-Dean Brown</p> <ul style="list-style-type: none"> ● A Polyculture model for Growing Rice, Barley and Crayfish in Barbados [Online] <i>Shamar Ward & Deandra Crawford, United Nations Developmental Programme Accelerator Lab, Barbados and Eastern Caribbean</i> ● Intestinal Helminth Infections in Jamaican Domesticated Poultry <i>Cecelia Waugh-Hall, University of Technology, Jamaica</i> ● The Fermentation of Sugar Beet in Boiled and Unboiled State [Online] <i>Raymond Compton Jagessar, University of Guyana</i> ● Population Estimates, Ecology and Behaviour of Parrots and Parakeets (Psittaciformes) on The UWI, Mona Campus <i>Noel Ellis, The University of The West Indies, Mona</i> ● Cicadellidae Collected by Sweep Netting in Jamaica <i>Desireina Delancy, The University of The West Indies, Mona</i> 	
<p>4:00 – 4:20 p.m. (5:00 - 5:20 p.m. ET)</p>	<p>AFTERNOON BREAK</p>	

<p>4:20 - 4:40 p.m. (5:20 - 5:40 p.m. ET)</p> <p>4:40 - 5:00 p.m. (5:40 - 6:00 p.m. ET)</p>	<p>SESSION 7: ADVANCING SCIENCE (LT-49)</p> <p>Chair: Peter Ruddock Co-Chair: Melinda Levy</p> <ul style="list-style-type: none"> ● An Assessment of Electrodeposited Bimetallic and High Entropy Oxides for Third Generation Concentrated Solar Power Plants [Online] <i>Medeba Uzzi, Florida International University</i> ● Cell Phone Radiation Exposure Level and Potential Health Impact on Jamaican Students: A Cross-Sectional Quantitative Study <i>George Ferriera, University of Technology, Jamaica</i> 	<p>SESSION 8: ADVANCING INNOVATION (LT-50)</p> <p>Chair: Adrienne Williams Co-Chair: Olha Shyiko</p> <ul style="list-style-type: none"> ● Machine Learning-Driven Optimization of Residence Time for Enhanced Hydrogen Production via Catalytic Pyrolysis of Natural Gas and Biomass [Online] <i>Vishal Persaud, Florida International University</i> ● Improved Solar Cell Efficiency by using AgInSe₂ layer with Si Device [Online] <i>Kevin Gurbani Beepat, The University of the West Indies, St. Augustine.</i>
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Day 3: Friday August 16, 2024

8:00 – 9:00 am (9:00 - 10:00 a.m. ET)	Registration	
9:00 – 10:00 a.m. (10:00 - 11:00 a.m. ET)	<p>PLENARY SESSION 5 (LT-50)</p> <p style="text-align: center;">Chair: David White</p> <ul style="list-style-type: none"> ● Ensuring a Tightened Cybersecurity for a Smooth Economic Development in the Caribbean <i>Lt. Col. (Ret) Godphey Sterling, Head of Jamaica Cyber Incident Response Team</i> 	
10:00 – 10:20 a.m. (11:00 - 11:20 a.m. ET)	COFFEE BREAK	
10:20 – 12:00 p.m. (11:20 - 1:00 p.m. ET)	<p style="text-align: center;">3rd Student Grand Innovation Challenge (LT-50) <i>“Resilience and Transformation: Innovating Connected Caribbean Communities”</i></p> <p style="text-align: center;">Chair: Laura Rambaran-Seepersad</p> <p>Welcome and Opening Remarks <i>Melissa Sanderson, GIC Co-chair</i></p> <p>Overview of the Grand Innovation Challenge <i>Vanessa Dillon, GIC Co-chair</i></p> <p>Presentations by Finalists</p> <p>Messages from Sponsors</p> <p>Vote of Thanks <i>Vanessa Dillon, GIC Co-chair</i></p> <p>Closing Remarks <i>Melissa Sanderson, GIC Co-chair</i></p>	
12:00 - 1:00 p.m. (1:00 - 2:00 p.m. ET)	<p>WORKSHOP 3 (LT-49)</p> <p style="text-align: center;">Chair: John Hall</p> <p>Intellectual Property Rights 101: What researchers need to know <i>Adrienne Thompson, Jamaica Intellectual Property Office</i></p>	<p>WORKSHOP 4 (LT-50)</p> <p style="text-align: center;">Chair: Natala Burnett</p> <p>Harnessing AI for Research Excellence: Practical Tools, Strategies, and Ethical Consideration <i>Zeyar Min, University of Technology, Jamaica</i></p>

<p>1:00 - 2:00 p.m. (2:00 - 3:00 p.m. ET)</p>	<p>LUNCH BREAK</p>
<p>2:00 - 3:00 p.m. (3:00 - 4:00 p.m. ET)</p>	<p>Panel Discussion (LT-50)</p> <p><i>“Science and Technology Innovation Imperatives for National and Regional Development: Priorities for Economic Development”</i></p> <p>Moderator: Mr. George Davis, Deputy Executive Producer/Editor, <i>Nationwide News Network</i></p> <p>Panelists:</p> <p><i>Dr. Kevin Brown</i> <i>President, University of Technology, Jamaica</i></p> <p><i>Professor John Lindo</i> <i>Director, Mona Office for Innovation and Research,</i> <i>The University of the West Indies, Mona</i></p> <p><i>Professor R Clive Landis [Online]</i> <i>Principal, The University of the West Indies, Cave Hill</i></p> <p><i>Hon. Floyd Green, MP</i> <i>Minister of Agriculture, Fisheries and Mining</i></p> <p><i>Professor Paloma Mohamed [Online]</i> <i>Vice Chancellor, University of Guyana</i></p>
<p>3:00 - 3:20 p.m. (4:00 - 4:20 p.m. ET)</p>	<p>AFTERNOON BREAK</p>

<p>3:20 - 3:40 p.m. (4:20 - 4:40 p.m. ET)</p> <p>3:40 - 4:00 p.m. (4:40 - 5:00 p.m. ET)</p> <p>4:00 - 4:20 p.m. (5:00 - 5:20 p.m. ET)</p> <p>4:20 - 4:40 p.m. (5:20 - 5:40 p.m. ET)</p>	<p>SESSION 9: ADVANCING ENVIRONMENTAL SUSTAINABILITY (LT-50)</p> <p>Chair: Damian Nesbeth Co-Chair: Amoy Campbell</p> <ul style="list-style-type: none"> ● Does the Seagrass Habitat’s Nearest Neighbour Factor in Fish Distribution? <i>Nikki Bramwell, University of Technology, Jamaica</i> ● Assessing Structural and Floristic Characteristics within a Section of Urban Forest on A University Campus: A Comparative Study after 30 years <i>Nicholas A Lee, The University of the West Indies, Mona</i> ● Comparative Analysis of Epiphyte Diversity and Host Preferences in two Botanical Gardens of Jamaica <i>Mariah Medrano, The University of the West Indies, Mona</i> ● Exploring Jamaica’s Natural Products through the NPRL, UTech [Online] <i>Andrew Lamm, University of Technology, Jamaica</i>
<p>4:40 - 5:00 p.m. (5:40 - 6:00 p.m. ET)</p>	<p>Closing and Awards Ceremony (LT-50) Chair: Professor Samson Omoregie</p> <ul style="list-style-type: none"> ● Presentation of Awards <ul style="list-style-type: none"> ○ <i>Best Graduate Oral Presentation</i> ○ <i>Best Graduate Poster Presentations</i> ○ <i>Student Grand Innovation Challenge</i> ● Vote of Thanks and Closing Remarks <i>Professor Samson Omoregie, Dean, Faculty of Science and Sport, University of Technology, Jamaica</i>



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