

# CARIBBEAN ACADEMY OF SCIENCES

Newsletter

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## **This Newsletter features:**

1. The Caribbean Academy of Sciences 23<sup>rd</sup> Biennial Conference
2. The Amazon Initiative – Heetasmin Singh, CAS Guyana Chapter
3. Solar Farm Generation – Kurt Baptiste
4. CAS Short Course on Renewable Energy

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Antigua



Barbados



Guyana



Jamaica



Trinidad



Guadeloupe



## **Special Features - The Caribbean Academy of Sciences 23<sup>rd</sup> Biennial Conference – November 24-25, 2023**

The Caribbean Academy of Sciences (CAS) will host its 23<sup>rd</sup> Biennial Conference on November 24-25, 2023, at the University of the West Indies, St. Augustine Campus, Trinidad under the theme:

### ***“The Sustainability and Development Initiatives of the Caribbean”***

The opening ceremony of this conference features guest speakers and keynote presentations. The feature address will be delivered by Trinidad and Tobago’s Minister of Education, Dr. the Hon Nyan Gadsby-Dolly. Professor Emeritus Ishenkumba Kahwa will speak on the topic “The Caribbean Must Innovate-Sooner than Later” and Dr. Dr. Acolla Lewis-Cameron will speak on “Unpacking the ‘I’ Factor in Sustainability: Perspectives from the Tourism Sector”. Dr. Anna Paolini, Director of the UNESCO Cluster Office for the Caribbean is expected to speak at the opening ceremony as part of the inaugural L’Oreal UNESCO For Women in Science Awards Ceremony, a partnership with UNESCO, L’Oreal and CAS. Additionally, greetings will be delivered by the International Science Council.

This 23<sup>rd</sup> Biennial Conference presents several tracks - Development and Climate Change; Agriculture for Development; Science, Technology and Engineering Education; Reshaping Social and Economic Growth; Sustainability and Development Initiatives of the Caribbean; Pandemics Health and Sustainability; Energy Provision and Access and a Poster Competition and Welcome Reception.



Dr. the Hon Nyan Gadsby-Dolly.



Professor Emeritus Ishen Kahwa



Dr. Anna Paolini

For more information on this conference please use this link:

<https://sites.google.com/view/caribbeanacademyofsciencett/home>



Heetasmin Singh, Treasurer, CAS Guyana Chapter, Lecturer, Department of Chemistry, University of Guyana

## The Amazon Initiative

On August 2-3, 2023, the Inter-American Network of Academies of Sciences (IANAS) and the Brazilian Academy of Sciences (BAC) hosted a meeting of the Science Academies of countries of Latin America and the Caribbean at the National Institute of Amazonian Research (INPA) in Manaus, Brazil. This was a contribution to the “Summit of the Amazon” initiated by Brazilian President Luiz Inácio Lula da Silva on August 8 and 9, 2023 in Belem, Brazil. The purpose of the summit was to renew the Amazon Cooperation Treaty and strengthening the Amazon Cooperation Treaty Organization (ACTO) among the eight countries of the Amazon Basin: Brazil, Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

The Caribbean Academy of Sciences (CAS) was represented in Manaus by the CAS Guyana Chapter Treasurer Ms. Heetasmin Singh who presented on Guyana’s perspective of bridging science and policy in support of Sustainability in the Amazon and the IANAS Amazon Initiative.

Ms. Singh committed the support of the CAS and the CAS Guyana Chapter in advocating for the use of science to inform policy and decision making. The presentations from other countries, as well as Brazilian diplomats and Indigenous leaders, highlighted some of the common issues faced by countries in the Amazon region which include deforestation, illegal and irresponsible mining, mercury poisoning, illegal fishing, land conflicts and climate change.

On day two, the representatives of the science academies thus endorsed the “**IANAS Manaus Letter**” which “commits to support and endorse the efforts for the regional sustainable and equitable development through partnerships among the Governments of the Amazon Region and their science academies”.

It further stresses the importance of a collaborative effort of conservation, restoration and remediation of the Amazon rainforest, as it is an unparalleled reservoir of biodiversity and a critical component of the global climate system. The efforts must include the implementation of a comprehensive strategy and bioeconomy model based on scientific knowledge, as well as expertise from Indigenous Peoples and local communities that addresses the multifaceted challenges faced by the Amazon rainforest. The meeting closed with recommended future steps of the IANAS Amazon Initiative presented by the representatives of the academies. These centered on the themes of social justice, bioeconomy, community engagement, citizen science and conservation and preservation of biodiversity.

By fostering cooperation, promoting research, and advocating for policy changes, the Amazon Initiative seeks to exemplify the profound impact that scientific communities can have when working together for a shared cause.



Representatives from Panama and Guyana (Heetasmin Singh, Right)



Kurt Baptiste

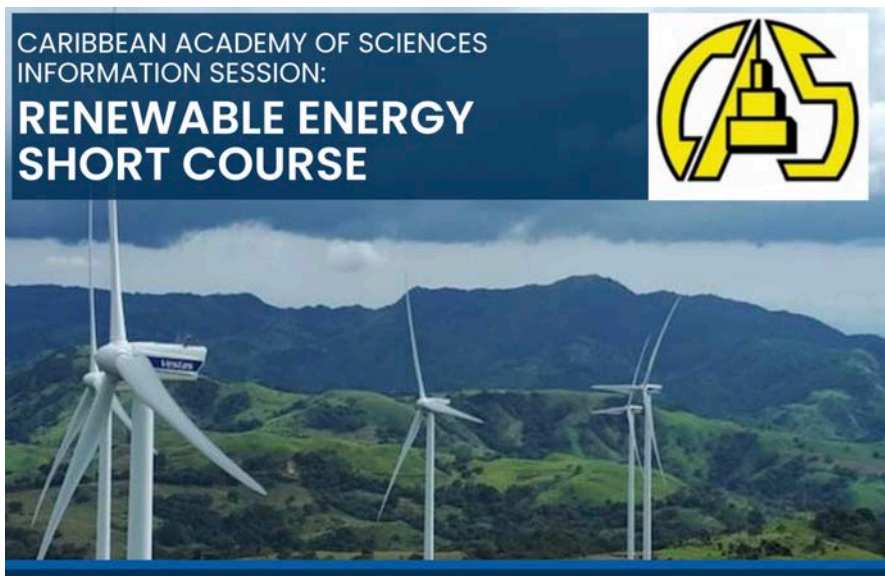
## Solar Farm Generation, Guyana's Potential for Hybrid Energy Systems

As part of his MSc. Programme in Project Management at UWI St. Augustine (2018-2021), Kurt Baptiste conducted a Feasibility Study which explored the production of 83.33 Megawatt of Solar Power as an alternate power source for Guyana National Electrical Grid, as a hybrid model. A major driver for this feasibility study was the inconsistent power supply provided by the Guyana Power and Light Inc. (GPL), the sole electricity provider in Guyana. GPL produces electricity using imported fossil fuel. Due to limited generation capacity, lengthy periods of power outages are experienced by GPL's customers. There is no alternative power source should system failures occur.

Kurt envisioned reducing the power woes while creating a synergy with agricultural production through solar energy harvesting, known as agrivoltaics technology. He noted that independent renewable power producers receive incentives and tax exemptions from the Government of Guyana. His research project aimed at identifying a proposed land site that falls within the Demerara Berbice Interconnected System (DBIS) to build a Solar Farm, that will be used as an alternate power source for GPL.

**About the Author:** Kurt Baptiste is the Electro-Mechanical Engineer for the System Controls and Engineering Services (SC&ES) Department, Electro-Mechanical Section, Guyana Power & Light Inc. (GPL). He began his career with the Guyana Sugar Corporation in various positions from 2001-2009. He holds a BSc. in Mechanical Engineering from the University of Guyana and an MSc. in Project Management University of the West Indies. For more information about this research please contact the author on email address - [kurt\\_baptiste2005@yahoo.com](mailto:kurt_baptiste2005@yahoo.com)





### Short Course on Renewable Energy

A short course on Renewable Energy was designed by the Caribbean Academy of Sciences. An information webinar was hosted on October 7, 2023. This course was designed by Dr. Akeem Mohammed and Ms. Petal Punalall Jetoo and is currently under review. This course targets educators, energy statisticians/technical, policy makers, professionals, students and researchers, NGOs and other interested organisations. A paper on the design of this course will be presented at the CAS 23<sup>rd</sup> Biennial Conference.

This renewable energy course aims to:

- Raise awareness of the urgency for renewable energy transition;
- Encourage transdisciplinary research to support this transition;
- Explore the impacts of COVID-19 and vulnerabilities in energy systems of the Caribbean.

This live online 13 week course will cover the following content areas:

- The Caribbean's responses to the Sustainable Development Goals with a focus on Renewable Energy Transitions - a look at Science - Policy - Society Interface
- Increase awareness of the impacts of the continued use of fossil-based energy on the environment
- Raise awareness of data-driven energy management approaches

## Reminders:

### Conference Registration:

Please register for the conference using this link:

<https://sites.google.com/view/caribbeanacademyofsciencestt/registration>

### Membership Fees

Please remember to pay your membership fees to the local chapter to which you are affiliated. If you need assistance, please contact your local Chapter Executive.

### Newsletter

Please submit articles, announcements, and other science related matters that you wish to publish in the newsletter.

### Guidelines for Submission of Articles for CAS Newsletter

1. Articles should not exceed 1000 words (1 ½ pages)
2. Images should be submitted as separate files

Articles should be submitted to:

[casexecutive2021@gmail.com](mailto:casexecutive2021@gmail.com)

If you have questions, please reach out to us.

A Call for nominations for the New CAS Executive is opened until November 8, 2023  
Please submit your nominations on this link: <https://forms.gle/MWjyTA81K9ffVxvj8>

### CAS Executive Committee

**President:** Prof. Raymond Jagessar    **Treasurer:** Prof. Neela Badrie    **Secretary:** Petal Punalall Jetoo  
**Public Relations Officer:** Prof. Mark Wuddivira    **Foreign Secretary:** Prof. Emeritus Winston Mellowes