

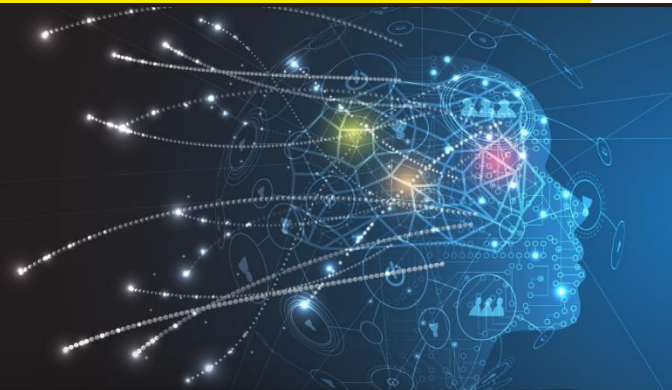


The Caribbean Academy of Sciences

in collaboration with
Caribbean Academy Sciences Jamaica and
The University of the West Indies, Mona,
as part of
The UWI's 70th Anniversary and
CAS' 30th Anniversary Celebrations

WOMEN IN SCIENCE FORUM

Cracking the Code to
Gender Disparities in
Creating a Knowledge
Based Economy:
Increasing Female
Participation in STEM



The Caribbean Academy of Sciences

WOMEN IN SCIENCE FORUM

November 28, 2018
Mona Visitors' Lodge and Conference Centre
The UWI, Mona Campus

Wednesday
November 28, 2018
4:00 P.M. – 6:30 P.M.

Mona Visitors' Lodge and
Conference Centre
The UWI, Mona Campus



United Nations
Educational, Scientific and
Cultural Organization



Sustainable
Development
Goals

WELCOME AND OPENING REMARKS

Ms. Petal Punalall Jetoo (Moderator)
Consultant, Natural Sciences
UNESCO Cluster Office for the Caribbean

GREETINGS

Dr. Leith Dunn
Head of the Institute for Gender and Development Studies Unit, The UWI, Mona

PRESENTATIONS BY PANELISTS

Ms Zelmira May
UNESCO, Regional Office for Science and Latin America and the Caribbean

Ms. A. Giselle Burbano
Programme Specialist
Social and Human Sciences Sector, Gender Focal Point
UNESCO Cluster Office for the Caribbean
Title: UNESCO's work in Achieving Gender Equality

Dr. Renee Horton
Space Launch System (SLS) Lead Metallic/Weld Engineer,
NASA Residential Management Office
Michoud Assembly Facility (MAF) in New Orleans
Title: STEM Disparity and the need for Female Inclusion

Dr. Lilliam Margarita Alvarez-Diaz
Head of the Group of Promotion of Sciences
President of the Commission of Women in the Academy
Title: Women in the Academies of Sciences in the world, still in disadvantage: "More Women, better Science"

Dr. Aisha Jones
Executive Director for the Biotech R&D Institute in Kingston
Title: Implementation of the UNESCO SAGA project: The Jamaica Experience

Dr. Elizabeth Rincón Santana
Professor of Mathematics at the Autonomous University of Santo Domingo
Title: Participation of Women in Mathematics at the Autonomous University of Santo Domingo

Mrs. Elena Trim
Dean of the Faculty of Engineering and Technology
University of Guyana
Title: Female participation and opportunity in Engineering

DISCUSSION

SUMMARY AND CLOSING REMARKS

Ms. Petal Punalall- Jetoo



MRS. ELENA TRIM

...actively promotes capacity development in the basic sciences through the use of the UNESCO microscience programme

Presenter:

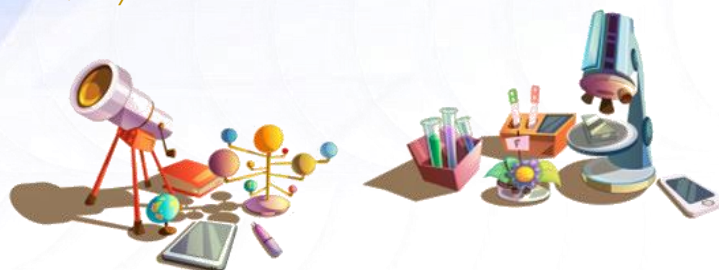
Female participation & opportunities in Engineering

Elena Trim was born in Russia, Moscow and graduated from Moscow Aviation Institute with a MSc. in Aeronautical Engineering. She joined the staff at Central Scientific Research Institute of Automation and Hydraulics as part of team engineers and scientists responsible for the design of military equipment. In 1997 she immigrated to Guyana and in 2000 joined the academic staff at the University of Guyana as a lecturer in the Faculty of Engineering and Technology. Over the years she has taught several engineering mathematics courses at various capacities among which are teaching engineering mathematics and physics courses at the University of Guyana and at the Art Williams & Harry Wendt Aeronautical Engineering School. She has also served as Coordinator for Engineering Mathematics; Assistant Dean and in 2013 was appointed as the Dean of the Faculty of Engineering and Technology, a position that she currently holds.

During her tenure she has initiated and led several programmes among which are:

- Academic interventions which resulted in increasing the number of graduates and advancing the reputation of the University of Guyana such as Certificate and Associate of Science in Aviation Management in collaboration with Aviation Industry and Civil Aviation Authority, joint collaborative programme with UTT in Associate of Science in Petroleum Engineering.
- Curriculum review in 2014-2015 for all engineering programmes that housed at the Faculty of Engineering and Technology under the of Guyana Science and Technology Support Project (UGSTP),
- Mentorship and coaching of employees resulting in an increase in productivity.
- Managing the operation of the Faculty of Engineering comprised of 5 Departments: Civil, Electrical, Mechanical, Petroleum and Geological Engineering and Architecture.

Her main areas of research are STEM Education with an emphasis on engineering students background and performance ("Students performance based on entry grades", Engineering Student's level habits and factors affecting them", Students performance based on self-teaching in tertiary education") and green energy ("Utilization of rice husk (agricultural waste) and use expanded polystyrene (inorganic waste). She is a member of GAPE (Guyana Association of Professional Engineers), The Bureau of Standard's (Member of several Committees), UGST, 2013-2015 Member of UGSTP (World Bank Project) Research Technical Committee.





MS. ZELMIRA MAY

...acted as Executive Secretary of the Global Water Partnership in Uruguay, an organization aiming at fostering the integrated management of water resources.

Presenter:

Women in the Academies of Sciences in the world, still in disadvantage: "More Women, better Science"



DR. ELIZABETH RINCÓN SANTANA

...has participated as a speaker in the most important congresses organized in her country by educational institutions

Presenter:

Participation of Women in Mathematics at the Autonomous University of Santo Domingo

Zelmira May is an Agronomy Engineer (UdelaR, Uruguay) and holds an MSc on Water and Environmental Management from WEDC, Loughborough University of the UK. Along her professional life, Ms. May has worked in the field of water resources management in several international organizations acquiring wide experience in the execution and implementation of water programmes at the global and regional level. Over the past ten years she has been working at the Division of Water Science of UNESCO based in the Regional Office for Science for Latin America and the Caribbean, being presently responsible for the implementation of the International Hydrological Programme (IHP). The IHP is the only scientific intergovernmental water programme in the UN System. As coordinator for the implementation of UNESCO water programme in the region, she is responsible for development and execution of the water initiatives, and of fostering and strengthening the network of the IHP, composed by its National Committees, UNESCO water-related Centres and Chairs, and other relevant partners in the region. Moreover, she was the Executive Secretary of the InterAmerican Water Resources Network, a network of organizations and individuals working on water in the Americas and the National Programme Specialist for Education Regional Bureau for Sciences in Latin America and the Caribbean, Uruguay. Furthermore, Ms. May is the Executive Director of the AquaLAC scientific journal and guest editor in the Special Journal Issue on Sciences in Cold and Arid Regions for Water and Development Information for Arid Lands – a Global Network (G-WADI). In addition, she is member of the Board of Directors of the Water Web Consortium.

Elizabeth Santana has a Bachelor's degree in Mathematics and Physics Education, a Master's in Educational Technology, and a Ph.D. in Pedagogical Sciences. She is a professor of Mathematics at the Autonomous University of Santo Domingo (Universidad Autónoma de Santo Domingo), first university of the Americas. She has represented her country in international educational events held in Cuba, Mexico, Puerto Rico, Colombia, Chile, Paraguay and El Salvador. She works assiduously for the inclusion of women in the sciences, specifically for the development and participation of Dominican women in the teaching-learning processes of Mathematics. Her work in favour of the development of Mathematics Education has been recognized by different institutions of the Dominican Republic such as the Ministry of Education, Office of the First Lady, Central Bank, the Autonomous University of Santo Domingo, Apec University, among others.



MS. A. GISELLE BURBANO

Ms. Burbano F. can be contacted at:

ag.burbano-fuertes@unesco.org

Presentation title:

UNESCO's work in Achieving Gender Equality

A national from Ecuador, **A. Giselle Burbano F.** is, since 2016, the Programme Specialist for Social and Human Sciences and the Gender Focal Point in UNESCO's Office for the Caribbean based in Kingston. She holds a Master's Degree in Comparative Studies in Development from the *Ecole des Hautes Etudes en Sciences Sociales* / School for Advanced Studies in Social Sciences, Paris, France. She joined UNESCO in 2006 and has since then developed programmes and actions working both for the Regional Office for Sciences in Latin America and the Caribbean in Montevideo and in UNESCO's Headquarters in Paris.

In addition to her academic background and comprehensive experience across UNESCO, she has strong capabilities in mainstreaming the specific mandate of the Organization in social and human sciences, as well as in project management, partnership and network development, donor relations and resource mobilization and a sound knowledge of the United Nations System. Her mother tongue is Spanish and she is fluent in English, French and German.



DR. LILLIAM MARGARITA ALVAREZ-DIAZ

.... has published more than 70 papers and is author of several books.

Presentation title:

Women in the Academies of Sciences in the world, still in disadvantage: "More Women, better Science"

Liliam Díaz received her Ph.D. degree in Physics-Mathematics from the former Academy of Science of the USSR, Moscow in 1989. She is a Merit Member and Executive Secretary of the Cuban Academy of Sciences, Head of the Group of promotion of Sciences and President of the Commission of Women in the Academy and National Chapter of OWSD. She was elected a TWAS Fellow in 2008 and has been a full member of the Caribbean Academy of Sciences since 2000.

Dr. Alvarez Díaz has participated in more than 60 seminars, workshops and conferences in her specialty in Mathematics – Numerical methods for non-linear partial differential equations; and in Policies and Strategies for S&T, giving priority to Basic Sciences and related topics on Science, Technology and Gender issues in Latin America and the Caribbean. She received the National Prize for the best scientific publication in Cuba in 1991 and the National Order Carlos Finlay in 2001 due to her relevant contributions to the Cuban Sciences. Particularly relevant has been her leadership in the Iberoamerican Program of S&T, CYTED, and in the Network on Gender, Science and Technology. Lilliam was Co-chair of the IANAS Program of Women of Sciences from 2013-2016. She was Member of the ICSU-LAC Scientific Planning Group of Mathematics Education, and nowadays is a very active Member of the ICS Regional Committee for Latin America and the Caribbean since 2014.

PROFILES__2



DR. K. RENEE HORTON

...is the author of *Dr. H Explores the Universe*, *Dr. H and her Friends*, and *Dr. H Explores the ABCs*

Presenter:
STEM disparity and the need for female inclusion

K. Renee Horton is a native of Baton Rouge, Louisiana and lifelong lover of science and NASA. She graduated from the Louisiana State University with a Bachelor's degree in Electrical Engineering (Math minor) in 2002 and later obtained her Ph.D. in Material Science with a concentration in Physics, becoming the first African American to graduate from the University of Alabama in 2011 in this area. Dr. K. Renee Horton currently serves as the Space Launch System (SLS) Lead Metallic/Weld Engineer in the NASA Residential Management Office at Michoud Assembly Facility (MAF) in New Orleans. She worked for NASA, first as a student from 2009 to 2011, and then started her career as a mechanical test engineer in 2012. In 2014 she was promoted to her current position.

In 2016, Renee was elected President of the National Society of Black Physicists (NSBP) as the second woman to hold the office. She has served the physics community abroad as a member of the International Union of Pure and Applied Physics (IUPAP) Women in Physics Working Group and currently serves on several advisory boards dedicated to a more diverse inclusion in physics. In 2017, she was elevated to a Fellow in the NSBP, which is the highest honour bestowed upon a member.

Renee has been an invited speaker for the first International Women and Girls Day at the United Nations, Essence Power Stage, March for Science – New Orleans and recently the LSU Engineering Spring Commencement. She has spoken all over the world including South Africa, Brazil, South Korea, Canada, Mexico and the beautiful Virgin Islands. She is featured in NASA's I am Building SLS, Physics Today, and the LSU Alumni Magazine. She recently graced the cover of the Hearing Health Foundation Magazine, winter edition that can be found online.



PROFILES__3



MS PETAL PUNALL-JETOO

...actively promotes capacity development in the basic sciences through the use of the UNESCO microscience programme

Forum Moderator

Petal Punalall-Jetoo started her career as a Sugar Technologist with the Guyana Sugar Corporation Incorporated (GuySuCo) in 1997 after receiving her B.Sc. in Chemistry from the University of Guyana. She was the first female appointed Production Manager in GuySuCo and served in this capacity at the Enmore Sugar Estate. She received specialist training in Raw Sugar Technology from Nicholls State University, Louisiana, USA. She was responsible for sugar production and quality assurance for four Demerara Estates from 2003-2006. During this period she led the Quality Assurance team that established the company's Quality Management System which gained ISO 9001 certification for the Blairmont Sugar Estate.

As a consultant, with Delphi Consultants Ltd., Trinidad, she established the Quality Management System for the National Milling Company, Guyana which gained ISO 9001 certification. Through UNESCO's support, Ms. Punalall-Jetoo, in her capacity as National Science Coordinator for Guyana, served as the project coordinator for the development of national policies for Science, Technology and Innovation and Education for Sustainable Development. She is a member of the Caricom Science, Technology and Innovation Committee (CSTIC). She is also a member of the Caribbean Academy of Sciences (CAS) and serves on the STEM training team as a facilitator.



DR. AISHA JONES

...Her professional background spans several areas including science education, alternative energy, solid waste management and island biodiversity

Presenter:
Implementation of the UNESCO SAGA project: The Jamaica Experience

Aisha Jones is the newly appointed Executive Director for the Biotech R&D Institute in Kingston, Jamaica based at the University of the West Indies. The privately-owned biotechnology company is a premier research organization in Jamaica which conducts innovative activities geared at validating the medicinal properties of Jamaican plants for the development of natural products.

Aisha is a trained fish biologist/ecologist with academic focus on the impacts non-invasive fish species on the local artisanal fisheries of Jamaica. More recently her assignment within the public sector focused on establishing and promoting policies and programmes that support research and development as drivers of national development. She represented the Government of Jamaica in several national and international fora, including UNESCO Science Advisory Board for Jamaica, Organization of American States Inter-American Committee for Science and Technology, the International Network for Government Science Advice.