

Conference Programme and Presentations

Day 1: October 11, 2008 (Saturday)

| TIME | | |
|-----------------|--|---|
| 7:45 – 8:30 am | REGISTRATION <i>The Secretariat</i> | |
| 8:30 – 10.50 am | <u>OPENING CEREMONY</u> <u>Feature Speech</u> | |
| 10.50 -11:15 am | B R E A K | |
| 11:20 – 1:15 pm | Plenary Session I (Including Presentation of Young Scientist Winner) | |
| 1:15– 2:10 pm | L U N C H | |
| 2: 15 – 4:15 pm | Session 1A: Information and Communication Technology | Session 1B Biodiversity – Usage of Flora and Fauna |
| 4:15 – 4:40 pm | B R E A K | |
| 4:45 – 6:45 pm | Session 2A Engineering and Food Safety | Session 2B Environment, Natural Resources & Renewable Energy |

Day 2: October 12, 2008 (Sunday)

| TIME | | |
|-----------------|---|--|
| 8:30 – 10.00am | Plenary Session II | |
| 10.00 - 10:25am | B R E A K | |
| 10:30 – 12:25pm | Session 3A Applied Mathematics and Its Applications | Session 3B Other S&T Related Areas/Topics |
| 12:30 – 1: 25pm | L U N C H | |
| 1:30 – 3:20pm | Session 4A Management Practices and Industry Studies | Session 4B Medical Science and Research (Part I) |
| 3:25 – 3:45pm | B R E A K | |
| 3:45 – 5:40pm | Session 5A Education and Social Science Issues | Session 5B Medical Science and Research (Part II) |

Day 1: October 11, 2008 (Saturday)

Opening Ceremony (8:30 – 10:50am)

Master of Ceremony: Professor Winston A. Mellowes; University of the West Indies, WI

Feature Address

CAS_001: Mathematical and Empirical Studies of English/Creole Language Variation
Professor Ewart A.C. Thomas; *Stanford University, USA*

Plenary Session I (11:20 am – 1:15 pm)

Session Chair: Prof. Tara Dasgupta; President, the Caribbean Academy of Science

CAS-091: Science Education and Economic Development
Professor Karl Theodore; *University of the West Indies, WI*

CAS-092: Minding the Gaps: Organizing Ignorance and Managing Development
Dr. Wesley D. Balda; *St. George's University, Grenada, WI*

CAS-093: We Know More Than We Think We Do: An Examination of Current Caribbean Climate Science
Dr. Michael A. Taylor; *University of the West Indies, Jamaica, WI*
(The CAS-2008 Young Scientists Winner)

Session 1A: (2:15 – 4:15 pm)

Sub-theme: Information and Communication Technology

Session Chair: Prof. Ramsey Saunders; University of the West Indies, WI

CAS_003: Collaborative Learning: Using DVD Presentation In Industrial Databases and Systems Design Course
Ruel L.A. Ellis; *University of the West Indies, Trinidad & Tobago, WI*
(with Prakash Persad; *University of Trinidad and Tobago, WI*)

CAS_073: ChemSpider – Building a Structure Centric Community for Chemists
Antony J. Williams; *ChemZoo Inc, NC, USA*
Robert J. Lancashire; *University of the West Indies, Jamaica, WI*

CAS_074: Update on the Electron Microscopes of the University of the West Indies, St. Augustine, Trinidad and Tobago
David Hinds and Ramsey Saunders; *University of the West Indies, Trinidad & Tobago, WI*

CAS_078: Leveraging Education and Training for Economic Development Using CBT Technologies
Ruel L.A. Ellis; *University of the West Indies, Trinidad & Tobago, WI*
(with Prakash Persad; *University of Trinidad and Tobago, WI*)

[CAS 094](#): Discussion on the place of social sciences for alternative energy technologies projects on Caribbean islands: A comparative study of Guadeloupe and Puerto Rico
Judith Priam; *University of Antilles and French Guyana, WI*

Session 1B: (2:15 – 4:15 pm)

Sub-theme: Biodiversity – Usage of Flora and Fauna

Session Chair: Dr. Neela Badrie; *University of the West Indies, Trinidad & Tobago, WI*

[CAS 004](#): An Evaluation of the Antibacterial and Antifungal Activity of Leaf Extracts of *Peltophorum Pterocarpum* against *Candida Albicans*, *Staphylococcus Aureus* and *Escherichia Coli*

Raymond C. Jagessar; *University of Guyana, South America*
(with A. Mohamed and G. Gomes)

[CAS 009](#): Antibacterial and Antifungal Activity of Leaf Extracts of *Luffa operculata* against Pathogenic *Candida albicans*, *Staphylococcus aureus* and *Escherichia coli*

Raymond C. Jagessar; *University of Guyana, South America*
(with A. Mohamed and G. Gomes)

[CAS 013](#): Investigations on Unique Properties of *Calotropis*

Vishwa N. Verma and Manjula Verma; *University of Guyana, South America*

[CAS 033](#): Molecular Phylogeny of the Terebridae of the Indo-Pacific

Mandë Holford; *City University of New York-York College York College, NY, USA*
(with N. Puillandre, Y. Terry, C. Cruaud, B.M. Olivera and P. Bouchet)

[CAS 036](#): The Microbial Diversity Present in a Tropical, Circumneutral Iron Spring in Grenada

Ravindra Naraine; *St. George's University, Grenada, WI*
(with S.V. Kotelnikova, T. Smith, S. Jägevall, L. Hallbeck and K. Pedersen)

[CAS 061](#): A Preliminary Evaluation of the Anti Cancer Potential of Some Caribbean Plants

D. Arrindell; *University of the West Indies, Trinidad & Tobago, WI*
(with S.R. Peter, T. Alleyne, A. Odekunle and H. Daisley)

*[CAS 075](#): Comparative Study of the Osteoblastic Activity of Two (2) Implant Systems (Endopore® Versus Entegra®) Utilizing Single Photon Emission Computerized Tomography (SPECT): Experimental Study in Pigs Model

*[CAS 076](#): Comparative Study of the Osteoblastic Activity of Same implants (Endopore®) in Immediate Extraction Site Utilizing Single Photon Emission Computerized Tomography (Peri-implant Autogeneous Bone Grafting with Guided Tissue Regeneration Versus No Peri-implant Bone Grafting): Experimental Study in Pig Model

Christopher Ogunsalu, *University of the West Indies, Trinidad & Tobago, WI*

(with J. Watkins, C. Stoian, C. Ezeokoli, H. Daisley, S. Lorde, K. Jackson, D. Jaggernauth, A. Nelson and N. Mungal)

* - Combined Presentation

Session 2A: (4:45 – 6:45 pm)

Sub-theme: Engineering and Food Safety

Session Chair: Prof. Winston H. E. Suite; University of the West Indies, Trinidad & Tobago, WI

CAS 010: Recycling of Plastic (Polyethylene Terephthalate) Bottles: A Study in Trinidad and Tobago

Surujdaye Jaggernath-Furlonge; *University of the West Indies, Trinidad & Tobago, WI*
(with Kit Fai Pun, T.R.M. Lalla, C.S. Syan, K. Ramoutar and H. Omer)

CAS 018: Design and Development of a Novel Cathode Ray Tube (CRT) Crusher

Kamel Singh; *University of Trinidad and Tobago, WI*
(with David Mangal and M.K.S. Sastry)

CAS 023: A New, Locally Engineered Hydraulic Operated Hydro Test Bench for Gate Valves

Kamel Singh; *University of Trinidad and Tobago, WI*
(with Roopnath Dial, M.K.S. Sastry and Rasif Ali)

CAS 031: The Occurrence of Ochratoxin A in Stored Cocoa (*Theobroma cacao*) Beans in Trinidad

G.S.H. Baccus-Taylor; *University of the West Indies, Trinidad & Tobago, WI*
(with Sharon Peart-Rose and I. Chang-Yen)

CAS 048: Characteristics of Casehardened Surfaces of Plain Low Carbon Steel for Tribological Properties Using an Atomic Force Microscope

Gossett D. Oliver; *University of Technology (UTech), Jamaica, WI*
(with B. Jones and R. Bulpett)

Session 2B: (4:45 – 6:45 pm)

Sub-theme: Environment, Natural Resources & Renewable Energy

Session Chair: Prof. Prakash Persad; University of Trinidad and Tobago, WI

CAS 007: Determination of Chloride Ion Content in Wastewater from Selected Areas of Coastal Guyana Using the Mohr's Method

Raymond C. Jagessar and D. Hewitt; *University of Guyana, South America*

CAS 016: Studies of Treatment Methodologies for Rainwater and River Water for Possible Usage in Rural Communities of Trinidad

Winston A Mellowes; *University of the West Indies, Trinidad & Tobago, WI*
(with Ken Darrie Thomas)

CAS 019: Making Technology Work for You – The SBR as an Effective Low Cost Nutrient Removal System in the Caribbean

Winston A. Mellowes; *University of the West Indies, Trinidad & Tobago, WI*
(with M. Atherley-Ikechi and H. Farabi)

CAS 044: Water Decontamination for Rural and Disaster Affected Areas Using Advanced Oxidative Methods

Shazaad Ali Shah; *University of the West Indies, Trinidad & Tobago, WI*
(with R. Saunders, R. Clarke and C. Davies)

[CAS 064](#): Pyrene and naturally occurring pyrene-degrading bacteria adjacent to the La Brea Pitch Lake in Trinidad

Amalia Hosein; *University of Trinidad and Tobago, WI*
(with A. Ramsubhag, A. Mohammed and P. Umaharan)

[CAS 065](#): Potential Application of Wave Power in the Eastern Caribbean

Prakash Persad; *University of Trinidad and Tobago, WI*
(with Aneil Ramkhalawan and Aatma Maharajh)

[CAS 071](#): Geo-spatial Images: Means for Sustainable Development in the Caribbean

Raid Al-Tahir; *University of the West Indies, WI*

Day 2: October 12, 2008 (Sunday)

Plenary Session II (8:30 – 10:00am)

Session Chair: Prof. Robert J. Lancashire; *University of the West Indies, Jamaica, WI*

[CAS 002](#): Beyond Science and Technology

Dr. Rinia Veldhuizen-Doelahasori; *Anton de Kom University of Suriname, Suriname*

[CAS-082](#): Beyond Aggregation: Social Science and Sustainable Development in the Caribbean

Dr. Leon C. Wilson; *Wayne State University, USA*

Session 3A: (10:30am – 12:25 pm)

Sub-theme: Applied Mathematics and Its Applications

Session Chair: Dr. Reynold J. Stone; *University of the West Indies, Trinidad & Tobago, WI*

[CAS 030](#): A Simple Mathematical Model for Slaking Sensitivity Assessment in Trinidadian Soils under Intense Rainfall

Mark N. Wuddivira; *University of the West Indies, Trinidad & Tobago, WI*
(with Reynold J. Stone and Edwin I. Ekwue)

[CAS 056](#): The Alleged Surface Air Temperature Rise in Trinidad: Climate Change or Thermometer Change?

Reynold J. Stone; *University of the West Indies, Trinidad & Tobago, WI*

[CAS 059](#): The Impact of Increasing Food Prices on Food Security – Forecasting Food Production and Prices and Estimating Marketing Margins

Asisha Patterson; *University of the West Indies, Trinidad & Tobago, WI*
(with Doolarie Singh-Knights, D. Palmer and Sharon Hutchinson)

CAS 060: Forecasting Sugarcane Production in Jamaica Using a Vector Autoregression Framework

Don Palmer; *University of the West Indies, Trinidad & Tobago, WI*
(with Doolarie Singh-Knights)

CAS 069: Relationship Between Yield and Pod Quality Characteristics in Vegetable Pigeonpea

Albertha Joseph; *University of the West Indies, Trinidad & Tobago, WI*
(with P. Umaharan)

CAS 087: The Assessment of Flavonoids in Leading Brands of Cocoa Sold in Trinidad and Tobago

N. Balleram; *University of the West Indies, Trinidad & Tobago, WI*
(with A. Alleyne, D. Cozier, R. Haywood, C. Humphrey, L. Pran, K. Rampersad, D. Reyes, S. Bahall, Trevor Alleyne and R. Holder)

CAS 090: Quantifying Brain Electrical EEG Changes Using Different Analytical Methods

Oba Ranu; *University of the West Indies, Trinidad & Tobago, WI*
(with Ramsey Saunders, Jonas Addae and Christian Posthoff)

Session 3B: (10:30am – 12:25 pm)

Sub-theme: Other S&T Related Areas/Topics

Session Chair: Dr. M.K.S. Sastry; *University of the West Indies, Trinidad & Tobago, WI*

CAS 005: Microbiological Evaluation of Public Telephone Mouthpieces at the St. Augustine Campus, University of the West Indies

Meera M. Sirjoo; *University of the West Indies, Trinidad & Tobago, WI*
(with Neela Badrie and Ranate Odwin)

CAS 021: Fuel Cells as Future Alternative Energy Source for the Caribbean

Marisa Singh; *University of the West Indies, Trinidad & Tobago, WI*
(with Harinder Pal Singh Missan)

CAS 042: Research on Medicinal Plants in Suriname – Promises and Challenges

Jerry R. Toelsie; *Anton de Kom University, Suriname, South America*
(with Dennis R.A Mans and Robbert Bipat)

CAS 043: Moringa oleifera – an Under Exploited Source of Crop Protein in the Caribbean
Puran Bridgemohan; *University of Trinidad and Tobago, WI*

CAS 049: Unusual Resistance of Marine *Vibrio* from Grenada to the Solar UV Radiation

Svetlana V. Kotelnikova; *St. George's University, Grenada, WI*
(with Ryan J. McDonald, and L. Martin Eugene)

CAS 050: Confronting the Ethical Challenge: The Role of Caribbean Scientists

Winston H. E. Suite; *University of the West Indies, Trinidad & Tobago, WI*

CAS 080: Analysis of Light Curing Unit Light Intensity in Relation to LCU Type, Age and History of Monitoring/Service History in Trinidad

Vaughn Suite; *University of the West Indies, Trinidad & Tobago, WI*

Section 4A: (1:30 – 3:20 pm)

Sub-Theme: Management Practices and Industry Studies

Session Chair: Dr. Mark N. Wuddivira; University of the West Indies, Trinidad & Tobago, WI

CAS 040: Lagging Entrepreneurship in the Caribbean

Therese Baptiste-Cornelis and C. Perrell; *University of the West Indies, Trinidad & Tobago, WI*

CAS 051: Assessing the Impact of Different Types of Foreign Direct Investment on Sustainable Development in Jamaica

Andrew Mighty; *University of Technology, Jamaica, WI*

CAS 057: Being the Best and Sustainable Development: the New Journey of Atlantic LNG

Coraline Sirju-Ramnarine; *Atlantic LNG of Trinidad and Tobago, WI*

CAS 058: Assessing the Current Status and Future Potential of Ecotourism in Trinidad and Tobago

Jeanelle Joseph; *University of the West Indies, Trinidad & Tobago, WI*
(with Doolarie Singh-Knights and Dennis Smith)

CAS 062: Can Lean Production Create Competitive Advantage in SMEs? Framework for a Case Study

Cilla Benjamin; *Arthur Lok Jack GSB, UWI, Trinidad and Tobago, WI*

CAS 063: The impact of Science, Technology and Innovation on the Global Competitiveness of Trinidad and Tobago Food Processors

Cilla Benjamin; *Arthur Lok Jack GSB, UWI, Trinidad and Tobago, WI*
Denise-Margaret Thompson; *University of Trinidad and Tobago, WI*

CAS 085: A Quality Culture Approach for Quality Management Practices in Manufacturing Organisations

Surujdaye Jaggernath-Furlonge; *University of the West Indies, Trinidad & Tobago, WI*
(with Kit Fai Pun)

Section 4B: (1:30 – 3:20 pm)

Sub-theme: Medical Science and Research (Part I)

Session Chair: Prof. Svetlana V. Kotelnikova; St. George's University, Grenada, WI

CAS 022: Forensic Chemistry: Spectroscopic Characteristics of Cocaine

Vishwa N. Verma; *University of Guyana, South America*
(with Phillip Azore)

CAS 038: Beneficial microbes: probiotics derived from the skin of *Eleutherodactylus johnstonei*

Jonathan Ashcroft; *St. George's University, Grenada, WI*
(with A. Qureshi, J. Rayner, S. Kotelnikova and D. Lennon)

CAS 045: Glutamate Receptors in the Brain: Role in Protection Against Diseases

Jonas Addae; *University of the West Indies, Trinidad & Tobago, WI*
(with N. Ali and T.W. Stone)

CAS 070: Learning from the Past: Inferring the Evolutionary and Epidemic Histories of Emerging and Potentially Emergent Viruses

Christine V. F. Carrington; *University of the West Indies, Trinidad & Tobago, WI*

CAS 072: Use of Microvascular Resistance Obtained from Photoplethysmography (PPG) to Simulate Cardiovascular Disease and to Compare Normotensive, Hypertensive and Diabetic Subjects

Ramsey Saunders; *University of the West Indies, Trinidad & Tobago, WI*
(with Simeon Cornwall and Keith De Souza)

CAS-086: Morphological and Craniometrical Studies of the Agouti's (*Dasyprocta Leporena*) Skull

Abayomi Odekunle; *University of the West Indies, Trinidad & Tobago, WI*
(with Carla M. Philips and Keri Sawh)

Section 5A: (3:45 – 5:40 pm)

Sub-theme: Education and Social Science Issues

Session Chair: Prof. Vishwa N. Verma; *University of Guyana, South America*

CAS 006: Analyzing the Contribution of Spouses in a Dual Income Household in Relation to Child-care and Rearing Duties

Delores Richards and Neela Badrie; *University of the West Indies, Trinidad & Tobago, WI*

CAS 012: Caribbean Eco-Health Program (CEHP): Building Capacity and Capability in Public and Environmental Health

Neela Badrie; *University of the West Indies, Trinidad & Tobago, WI*
(with M. Forde, É. Dewailly, K. Morrison, L. Robertson, L. Indar and J. Flint)

CAS 014: Lessons Learned from Women Involvement in Agriculture and Agro-Industry in The Republic of Trinidad and Tobago and The Philippines

Neela Badrie; *University of the West Indies, Trinidad & Tobago, WI*
(with Sonia Y. de Leon, Karen Roscom and Benelyn Dumelod)

CAS 029: A Proposition for Science and Technology in the Twenty-first Century for the Establishment of Wildlife Farming

Gail Young; *University of the West Indies, Trinidad & Tobago, WI*
(with Gary Garcia and Cicero Lallo)

CAS 041: Master Education and Research Program on Sustainable Management of Natural Resources in Suriname

Jerry R. Toelsie; *Anton de Kom University of Suriname, South America*
(with Riad Nurmohamed, A. Vervoort, and R. Dewulf)

CAS 055: Contribution of Women Scientists in the Petroleum Industry

Sally Radford; *Bridgfield Observatory, Surrey, UK*
(with Neela Badrie)

Session 5B: (3:45 – 5:40 pm)

Sub-theme: Medical Science and Research (Part II)

Session Chair: Prof. Jonas Addae; University of the West Indies, Trinidad & Tobago, WI

CAS 025: Investigation of the Possible Teratogenic Effect of Herbal Hypoglycemic Agent (Momordica Charantia) on the Sprague Dawley Rats
Carol McEwen; *University of the West Indies, Trinidad & Tobago, WI*
(with Edward O. Uche-Nwachi)

CAS 026: Effect of Water Extract from Carica Payaya Seed on the Serum Testosterone and Estradiol Levels of Male Sprague Dawley Rats
Edward O. Uche-Nwachi; *University of the West Indies, Trinidad & Tobago, WI*
(with C.V. Mitchell)

CAS 027: Effect of Diabetes Mellitus on Serum of Progesterone, Testosterone, Follicle Stimulating Hormone and Luteinizing Hormone of Sprague Dawley Rats
Camille V. Mitchell; *University of the West Indies, Trinidad & Tobago, WI*
(with Edward O. Uche-Nwachi)

CAS 034: Bombesin Immunoreactivity in the Stomach and Small Intestine of Vagotomized Sprague Dawley Rats
Abayomi Odekunle; *University of the West Indies, Trinidad & Tobago, WI*
(with E.O. Uche Nwachi, K. Sawh, C. M. Phillips, C.V Mitchell and C. Mc Ewen)

CAS 037: Antimicrobial Peptides: A Paradigm for Novel Chemotherapeutic Agents
Jonathan Ashcroft; *St. George's University, Grenada, WI*
(with A. Qureshi, J. Rayner, S. Kotelnikova and D. Lennon)

***CAS 066:** Effectiveness of a Short Duration Progesterone Treatment on Synchrony of Estrus and Fertility in Barbados Blackbelly Sheep

***CAS 067:** Effect of Different Weaning Systems on Ewe Fertility, Lamb Growth and Survival in Barbados Black Belly Sheep
Marlon Knights; *University of Trinidad and Tobago, WI*
(with N. Siew and R. Ramgattie)

* - Combined Presentation

Poster Session:

[CAS_008](#): A (+) 2-hydroxymanool from a Xylopiia Species

Raymond C. Jagessar and Anderson R. Maxwell; *University of Guyana, South America*

[CAS_020](#): The Infojector: Maximising Textual Information Assimilation Using an Enhanced Information Interface

Eldon G. Marks; *University of Guyana, South America*

[CAS_024](#): Communicating Science – The Role of Video Documentary Production in the Caribbean

Shirin Haque and Terry Sampson; *University of the West Indies, Trinidad & Tobago, WI*

[CAS_068](#): Effect of Mammary Stimulation on Dairy Cows and Heifers Exposed to a Lactation-Induction Protocol

R. Ramgattie, N. Siew and Marlon Knights; *University of Trinidad and Tobago, WI*

[CAS_077](#): Emerging Applications of Experimental Single Photon Emission Computerized Tomography: Analysis of 16 Area of Interest in Pig's Model

C. Ogunsalu, A. Archibald and C. Ezeokoli; *University of the West Indies, Trinidad & Tobago, WI*

[CAS_079](#): Composite Usage and Light Curing Practices Amongst Dental Practitioners in Trinidad

Vaughn Suite; *University of the West Indies, Trinidad & Tobago, WI*

[CAS_081](#): Analysis of Light Curing Unit Light Intensity in Relation to Condition of the Light Guide in Trinidad

Vaughn Suite; *University of the West Indies, Trinidad & Tobago, WI*

[CAS_089](#): A Knowledge Management Audit on Performance in Trinidad and Tobago organizations: A Case Study

Ambika Koonj Beharry and Kit Fai Pun; *University of the West Indies, Trinidad & Tobago, WI*

[CAS-095](#): Light-Dependent Electron Shuffling in Iron-Oxidizing Biofilm in Newly Discovered Tropical Warm Soda Spring

Svetlana V. Kotelnikova; *St. George's University, Grenada, WI*

(with T. Smith, B. Samuel, D. Garraway, S. Jägevall, R. Naraine, L. Hallbeck and K. Pedersen)

[CAS-096](#): Determining the pKa of –SH Group in Some Model Compounds and Proteins Using Vibrational Spectroscopy

Pamela Lebrón, Soheila Adl, Karim Walters and Ruel Z.B. Desamero; *York College of the University of New York*
