



July, 2013

Volume 1, Issue 1

# Mona Physics Alumni Association Newsletter

## Recent Changes at the Physics Department



### Inside this issue:

- 1 Recent Changes at the Physics Department
- 2 Staff changes in the Department
- 3 Current Events at the Department: Summer Courses in Alternative Energy
- 4 UWI Physics Honours Society
- 4 Mona Physics Alumni Association: Mandate

### Renovations (2011—2012)

Several improvements to the facilities of the Department were performed under renovations carried out between December 2011 and January 2012. Solatube Solar Lighting Technology has been installed in the main office, seminar room, and kitchen. This technology uses natural sunlight to illuminate the interior of rooms directly beneath the roof of a building.

Each Solatube collects sunlight at the top of the building and directs it to the lens assembly inside the room; the Solatubes in the seminar room are also outfitted with a dimmer switch, which allows the light intensity in the room to be varied, and keeps the seminar room noticeably cooler. The Solatube installation is part of a pilot project to assess the feasibility of similar installations campus-wide in the future.

The main Lecture rooms (A, B, & C) also benefitted from installation of improved lighting and projection/multimedia equipment, along with a redesigned podium.

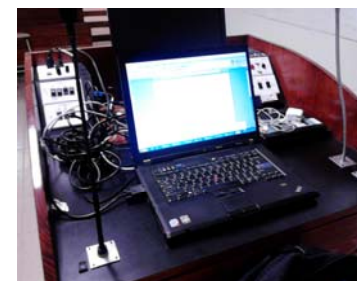


Seminar room with Solatube lighting fixtures



Physics lecture room "B" after renovation

Other targets for development include upgrading the Preliminary and Introductory Physics laboratories in the Department, along with a recently proposed gazebo/student lounge for the quadrangle between the lecturer's block and Physics main building (see end of newsletter)



New podium in Lecture room B



Physics main building following external renovation

## Staff Changes—Retirement of Dr. Michael J. Ponnambalam



Dr. Michael J. Ponnambalam

Dr. M. J. Ponnambalam, who was employed in the Department of Physics for over 31 years, officially retired from service as Senior Lecturer in 2012. Courses previously taught by Dr. Ponnambalam included Introductory Physics, Materials Science, and his favorite, Modern Physics.

Dr. Ponnambalam also served as Coordinator of the Department's Outreach Programme, and was integral in organizing and maintaining programmes including Primary and High School Outreach events and the Cape Physics Workshop, which is held in January of each year.

Dr. Ponnambalam's service to the department was recognized at the Physics Department's last Physics Honor Society breakfast in March 2013. Dr. Ponnambalam returned to his native country, India, later the same month.

## New lecturers: Materials Science



Dr. Keith Duncan

The Department welcomed two new Lecturers in the field of Materials Science in 2012:

Dr. Keith Duncan - a past graduate of the University of the West Indies, Mona, and Materials Scientist with extensive experience in the field of Oxide Chemistry and Fuel Cell design, Dr. Duncan previously worked at the University of Florida.



Dr. Venkatesawara Penugonda

Dr. Venkatesawara Penugonda - a Materials Scientist with a special emphasis in the fields of Glass and Ceramics research. Hailing from India, Dr. Penugonda studied at Nagarjuna University in India, and previously lectured at the Arba Minch University (AMU) in Ethiopia.

## New lecturer: Medical Physics



Dr. Kert Edward

The Medical Physics branch of the Department was recently joined by Dr. Kert Edward. Dr. Edward is the recipient of the B.Sc. degree in Physics (UWI, St. Augustine) in addition to the M.Sc. (Applied Physics - 2005) and PhD (Optics - 2009) from the University of North Carolina, Charlotte.

From 2009 to 2012, he was first a Research Associate then a research scientist at the Center for Biomedical Engineering of the University of Texas Medical Branch. His research involved the development of Optical Techniques for Pre-Cancer Diagnosis. In 2011, he was elected to full

membership in both the Sigma Xi Research Society and the Institute of Physics. Dr. Edward joined the Physics Department at Mona in 2012.



## Summer 2013

The Department of Physics, in collaboration with the Scientific Research Council, Wigton Wind Farm Ltd., and Alternative Power Sources, recently hosted a series of Certificate courses in Alternative Energy July 8-26, 2013.

The courses were offered as three 1– week long Modules (Introductory, Intermediate, and Advanced).

The modules can be completed together or individually. Certification is possible for each individual module.

The courses are aimed at persons who are interested in the field of Alternative and Renewable Energy, and are tailored especially to the Caribbean energy context.

Topics to be covered include:

### Module 1

#### Solar and Wind Energy: Basic Systems

- Jamaica’s Energy Mix; Overview of Alternative Energy
- Climate Change, Electricity and Energy Concepts. Energy Efficiency and Security
- Design and Installation of a Photovoltaic Standalone system
- Introduction to Wind Energy



### Module 2

#### Other Energy Sources and Alternative Energy Issues

- Energy Management and Auditing
- Biogas and Biodigesters
- Nuclear Energy
- Waste to Energy Conversion
- Jamaica’s National Energy Policy
- Energy Issues: Costs, Net Billing, Net Metering, Wheeling



### Module 3

#### Large Scale Alternatives: Design, Operation & Maintenance

- Wind data collection process, instruments, and data analysis software
- Clean Development Mechanism
- Power Grid Integration
- Economic Feasibility calculations for wind farms
- Practical exercises



For further information about the series of courses, contact:

Mrs. Cherri-Ann Scarlett (Dept. of Physics)

Telephone: 927-2480

Email:  
physics@uwimona.edu.jm

Website:  
<http://mona.uwi.edu/physics/acert/home>

Collaborating partners:



## UWI Mona Physics Honours Society (PHS) - "Promoting Honours...Yielding Successful, Creative Students"

The Physics Honours Society was created as a way to encourage Physics students to aim higher and achieve more. The society's main goal is for its members to graduate with honours (First or Upper-Second class).

The society is open to advanced (second and third-year) students majoring in Physics, and is normally open to the top 20 students across 2nd and 3rd year, based on academic performance. Members have access to a number of benefits, including:

- Invitation to the weekly research colloquium
- One month's summer employment as Research Assistants, after 2 successive Semesters in the society
- Participation in Research Groups (open to final year students)

Perhaps the most popular benefit is the PHS breakfasts, which is held twice per semester and is open to all current PHS members.

This current semester, the exceptional Academic performance across 2nd and 3rd year students resulted in the selection of 25 students, instead of the normal 20. The most recent PHS breakfast, as usual, emphasized the excellent performance of the current group of students. The occasion also provided an opportunity to recognize retired former Senior Lecturer Dr. M.J. Ponnambalam, who departed Jamaica the same month (March, 2013).

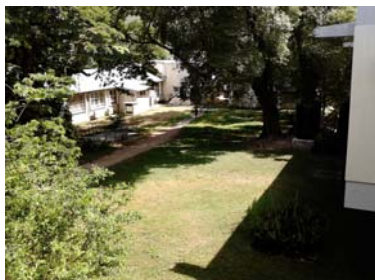


Jeremy Hall (left) and Christina Douglas (right) collecting awards for academic excellence at the PHS breakfast in February 2013



Dr. Michael J. Ponnambalam (at left) conversing with PHS members after the March PHS breakfast

## The Mona Physics Alumni Association (MPAA)



Proposed site for beautification - Physics Quadrangle

### History of the Mona Physics Alumni Association (MPAA)

The Mona Physics Alumni Association was launched as part of UWI's 60th Anniversary Celebrations in 2008, with the first general Alumni meeting being held in October 2009.

The MPAA is officially recognized by the University of the West Indies.

### Mission Statement

Our purpose is to organise the interest and resources of members in support of the Mona Physics Alumni Association; to keep alumni informed of the Physics Department activities and programmes; to provide and facilitate mutual exchange of

ideas between the association and the department; and to assist in the development of Science and Technology in Jamaica.

### Current Executive

President: Lindon Falconer

1st Vice President: Kevin McDowell

2nd Vice President: Michale Bailey

Secretary: Melissa Boothe

Public Relations Officer: Akeel Herdsman

Other Directors: Dwaine Hinert, Leotis Buchanan, Peter McCarthy, Godfrey Bernard, Cecil M. Reid, and John Lumsden.

The MPAA, in collaboration with the Physics Department, aims to undertake regular projects to benefit both the Alumni and the Department. Among the current proposed projects are:

1. Solar Photovoltaic Project—Aimed at developing or enhancing the skills of MPAA members in designing and installing Solar Photovoltaic Systems
2. Beautification of the Physics Quadrangle, on the Mona Campus.

The next general meeting of the MPAA is scheduled for **Thursday, October 24, 2013.**

For more info contact:  
Mr. Lindon Falconer  
lindon.falconer@alumni.uwi.edu