## Developing an Intelligent Integrated Control and Alarm System for a Sustainability Base at NASA Stefan Hosein, NASA Intern

Thursday 9<sup>th</sup> April, 2015 at the Noor Hassanli Auditorium University of the West Indies (UWI) St. Augustine Campus, St. Augustine 2:30 p.m. - 3:30 p.m.

NIHERST and the Embassy of the United States in Trinidad & Tobago are pleased to invite you to a presentation entitled, "Developing an Intelligent Integrated Control and Alarm System for a Sustainability Base at NASA", which will be delivered by NASA intern, Stefan Hosein. Hosein will deliver this technical presentation on his work at the Ames Research Centre involving the automated systems of The Sustainability Base, including machine learning system programming to predict the occurrence of abnormalities in the system. The attached gives further details.

Hosein was one of two Trinidadian students to win a prestigious scholarship to participate the first NASA International Internship Program (NASA I²) at the NASA Ames Research Center in Mountain View, California. This programme was launched locally in February 2014 and is the result of a partnership between NASA and the National Institute of Higher Education, Research, Science and Technology (NIHERST). Other partners include the U.S. Embassy, Port of Spain and UWI. Following a rigorous competition which included more than 20 of the nation's brightest local students studying science, technology, engineering and mathematics (STEM) Hosein worked with the Data Science Group of the Intelligent Systems Division on machine learning and knowledge discovery in databases. Both Hosein and his fellow intern Jason Renwick have been invited by their respective departments to return to the Research Center to continue their work. For more information about this program go to <a href="www.niherst.gov.tt">www.niherst.gov.tt</a>, call (868) 622-7505 or e-mail <a href="mailto:NASAinternship@niherst.gov.tt">NASAinternship@niherst.gov.tt</a>

We do hope you will join us for this very informative presentation.

We would also be grateful if you could bring the presentation to the attention of other persons who may be interested in attending

RSVP: Sean Deolat 628-4398 ext. 3306 or email <a href="mailto:sean.deolat@niherst.gov.tt">sean.deolat@niherst.gov.tt</a>









## **Public Lecture**

Developing an Intelligent Integrated Control and Alarm System for a Sustainability Base at NASA by returning NASA I<sup>2</sup> intern Stefan Hosein



With the advance of computer sciences and automated control systems in urban development, institutions all around the world are run by computers. Computer models control and monitor the various functions within the operations of entire buildings, from electrical systems to security and communications, to water

and plumbing. NASA's Sustainability Base at the Ames Research Center is one such building. With over 50,000 square feet of space and devoted to pushing the limits of sustainable civil engineering, the Sustainability Base is run by a number of computer controlled automated systems. But, what happens when these systems malfunction? Returning NASA I² intern, Stefan Hosein, is set to deliver a technical presentation on his work at Ames involving the automated systems of The Sustainability Base, including machine learning system programming to predict the occurrence of anomalies in the system.

A recent graduate of The University of the West Indies, St Augustine Campus, Hosein's work in the field of computer sciences and machine learning systems led to a scholarship on the prestigious NASA I<sup>2</sup> Programme, as an intern at the Ames Research Center in Mountain View, California. Under the mentorship of Dr. Rodney Martin, Hosein completed research work initiated by his predecessor, and created a solution to automated control system issues observed at the Sustainability Base. Having returned from his internship, Stefan has since delivered a public presentation on his experiences at NASA. In fact, Hosein's work at the research center was so impressive that he has been invited to return to complete his research there. He aims to pursue his doctorate in computer science, focussing on machine learning.

**Time:** 2:30 P.M - 3:30 P.M. **Date:** Thursday 9th April, 2015

Venue: The Noor Hassanali Auditorium, University of the West Indies (UWI), St. Augustine Campus, St. Augustine







400