Profiles of Lecturers

Dr. Paul Aiken: PhD in Electrical Engineering from Columbia University. Head of Electronics Unit and Associate Lecturer in Physics Department. Dr. Aiken has expertise in all levels of discrete and integrated circuit designs. He was previously employed as Senior Research and Development Engineer at Intel Corporation, USA

Dr. Andre Coy: PhD in Computer Science from the University of Sheffield. Before joining the department, Dr. Coy worked as a researcher with the University of Sheffield and the National Health Service, UK and most recently at McGill University. His research interests include Automatic Speech Recognition, Human Speech Perception and Sounds Source Separation

Mr. Leonardo Clarke: MPhil from the University of the West Indies. Mr. Clarke has experience in Microcontroller Technology, Embedded System Design, GPS Technology and High and Low Level Software Programming.

Mr. C. Courtney Jackson: MSc. In Electrical Engineering and Industrial and Systems Engineering

Mr. Lindon Falconer: MSc. In Digital Technology from the University of the West Indies. Mr. Falconer is a professional with a unique combination of telecommunication experience, electronic engineering skills and project management. He is experienced in the administration of multiple messaging platforms on a GSM network, programming, development of web driven database applications and electronic devices and installation of Photovoltaic systems.

External Lecturers

Miss Ann-Marie Hunt: MBA from the University of New Orleans, MSc, Applied Physics UWI Mona. Miss Hunt is a freelance Consultant Project Manager with fourteen years experience in Project Management, with special emphasis on Telecommunications and IT Projects

Department of Physics

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PHYSICS

Department of Physics

MSc. In Digital Technology Programme

PHYSICS

Programme Information 2012/2013

Website: http://myspot.mona.uwi.edu/physics

Programme Goals and Overview

The major goal of the programme is to produce graduates who are universally accepted as being able to provide appropriate solutions to digital technology related problems, being experienced by organizations operating within Jamaica and the Caribbean Potential users of the expertise of the graduates must be totally assured of the following:

1. Graduates will possess high levels of intellectual capabilities, resulting in their being sufficiently flexible to creatively and successfully tackle the most unusual and challenging problems, in addition to normal routine situations.
2. The curriculum will cover the core principles in sufficient detail and rigor to ensure that graduates are able to independently research advanced and/or new topics in digital technology which are commonly encountered in the Caribbean Region to the extent that graduates are able to:
   i. Analyze performance requirements and specify the technical characteristics and features of components and systems necessary to meet given performance objectives.
   ii. Evaluate technical proposals for systems employing digital technology and recommend appropriate choices and actions.
   iii. Manage the acquisition and implementation of integrated systems which use digital technology.

The programme will be offered on a part time basis and will last for two years.

There will be two evening classes during each week and an all day class and lab session on Saturdays. There will also be one full time session during Summer of year one.

Schedule

The programme will admit applicants who are holders of first degrees from UWI in any of the following: Applied Physics, Electrical, Mechanical or Chemical Engineering or Computer Science. Applicants with degrees from other universities will be considered on a case by case basis.

The course material will be presented in a manner which assumes that the students have completed courses in specific subjects. A rigorous approach will be taken in portions of the courses and will make it mandatory for students to be proficient in these subjects, if they are to follow what is being taught. Hence, preparation classes will be given, prior to the official start of the programme in selected areas.

The programme structure will be modular, in that subject areas will be grouped into course modules. Students will study one module at a time and will be examined at the end of each module.

SUCCESSFUL COMPLETION OF THE PROGRAMME WILL REQUIRE ACCUMULATING MINIMUM 40 CREDITS

List of approved MSc. Modules

1. Introduction to Digital Technology. [Compulsory for ALL students]. P30F/ELET 6400

2. Digital Control Systems and Signal Processing—Theories, design and analysis. [8 credits]. P64A/ELET 6420
3. Digital Communications—Theories, design and analysis. [8 credits]. P64B/ELET 6430
4. Microprocessors [8 credits]. P64C/ELET 6490
5. Computer Networks—Design Analysis [8 credits]. P64D/ELET 6440
6. Communication Links—Design and Implementation [4 credits]. P64E/ELET 6470
7. Project Management Fundamentals [4 credits]. P64H/ELET 6480
8. Microcontrollers—Architecture and Programming [8 credits]. P64J/ELET 6450
9. Solid State Electronic Devices and Applications [3 credits]. P64K/ELET 6410

Schedule

In year one, the Introductory course (ELET 6400) plus the "Core" Modules will be administered. i.e. ELET 6420 (P64A), ELET 6430 (P64B), ELET 6490 (P64C). These courses are all compulsory.

In year two, other Modules are offered which will be confirmed before the end of year one.

THE DEPARTMENT OF PHYSICS RESERVES THE RIGHT TO UPGRADE TEACHING MODULES OR CHANGE THE TEACHING SEQUENCE