



REGIONAL WORKSHOP ON OPTOFLUIDICS AND OPTICAL MANIPULATION

7 – 11 November 2011

Cape Coast, Ghana

PRELIMINARY PROGRAM

Monday, 7th November, 2011

07.30 - 08.30 Breakfast

08.30 - 09.30 Registration

09.30 - 10.30 **MORNING SESSION I**

Chairman: Prof. Ahmadou Wague, President, LAM, Cheikh Anta Diop University, Dakar, Senegal.

LECTURE 1

TOPIC: From Optical Imaging to Optical Manipulation I

SPEAKER: Prof. Francesco Difato, Istituto Italiano di Tecnologia, Genova, Italy.

10.30 - 11.00 Coffee break

11.00 – 12.30 **OPENING CEREMONY**

VENUE: Academic Board Chamber, School of Physical Science, UCC.

CHAIRMAN: Prof. F.K.A. Allotey, President, Institute of Mathematical Sciences.

11.00 - 11.10 Introduction of Chairman and Invited Guest

Prof. S.Y. Mensah - Coordinator, LAFOC, UCC.

11.10 - 11.20 Chairman's Response

- 11.20 - 11.30 Short Address
Prof. P.K. Buah-Bassuah - Local Organizer
- 11.30 – 11.40 Short Address
Prof. Ahmadou Wague, President, LAM, Dakar, Senegal.
- 11.40 – 12.00 Welcome and Keynote address
Prof. Naana Jane Opoku-Agyemang, Vice Chancellor, University of Cape Coast.
- 12.00 – 12.10 Chairman’s Closing Remarks
Prof. F.K.A. Allotey, President, Institute of Mathematical Science, Accra.
- 12.10 – 12.15 **Vote of Thanks**
Dr. Moses Jojo Eghan, Head, Dept. of Computer Science & Information Technology, UCC.
- 12.15 – 12.30 **GROUP PHOTOGRAPH**
- 12.30 – 14.30 Lunch break

AFTERNOON SESSION I

Chairman: Prof. S.Y. Mensah

Coordinator, Laser and Fibre Optics Centre, UCC.

- 14.30 – 15.30 **LECTURE 2**
TOPIC: Introduction to Set up to an Optical Tweezers System
SPEAKER: Prof. Francesco Difato, IIT, Genova, Italy.

15.30 – 17.30 **PRATICAL SESSION 1**

TOPIC: Elements of Optical Tweezers and Optical Levitation
SPEAKER: Profs. Francesco Difato and Jeremie Zoueu

TUESDAY, 8TH NOVEMBER, 2011

07.30 – 08.30 Breakfast

MORNING SESSION II

Chairman: Dr. Isaac Galyon, Dean, School of Biological Sciences, UCC.

08.30 – 09.30 **LECTURE 3**

TOPIC: From Optical Imaging to Optical Manipulation II

SPEAKER: Prof. Francesco Difato, IIT, Genova, Italy.

09.30 – 10.30 **LECTURE 4**

TOPIC: From Optical Imaging to Optical Manipulation III

SPEAKER: Prof. Francesco Difato, IIT, Genova, Italy.

10.30 – 11.00 Coffee break

11.00 – 12.00 **LECTURE 5**

TOPIC: Lasers for Optical Imaging

SPEAKER: Prof. Paul K. Buah-Bassuah, Dean, School of Physical Science, UCC, Cape Coast.

12.00 – 14.00 Lunch Break

AFTERNOON SESSION II

14.00 – 16.00 **PRACTICAL SESSION 2**

TOPIC: Demonstration of Optical Tweezers System

INSTRUCTORS: Profs. Francesco Difato, Jeremie Zoueu and Dr. Benjamin Anderson

16.00 – 17.00 **LECTURE 6**

TOPIC: Fundamentals of Cell Mechanics and Molecular Motors

SPEAKER: Profs. Francesco Difato and Jeremie Zoueu

18.00 – 20.00 Supper

WEDNESDAY, 9Th NOVEMBER, 2011

06.00 – 18.00 EXCURSION TO WESTERN REGION OF GHANA

06.00 – 12.00 TRIP TO NZULEZU (Village on Lake).

12.00 – 16.30 Lunch break at Busua Pleasure Beach.

16.30 – 18.00 Trip through beach road, through Esipong, back to Cape Coast.

(Trip by courtesy of Dean's Office, School of Physical Science, University of Cape Coast)

THURSDAY, 10Th NOVEMBER, 2011

07.30 – 08.30 Breakfast

MORNING SESSION III

Chairman: Prof. Yaw Opoku Boahen, Vice Dean, School of Physical Science, UCC.

08.30 - 10.30 **LECTURE 7**

TOPIC: Micro-fluidics and Phase Optical Microscopy

SPEAKER: Prof. Zeev Zalevsky, Bar Ilan University, Israel.

10.30 - 11.00 Coffee break

11.00 - 12.00 **LECTURE 8**

TOPIC: Optical Manipulation and Optical Imaging

SPEAKER: Prof. Zeev Zalevsky, Bar Ilan University, Israel.

12.00 - 14.00 Lunch break

AFTERNOON SESSION III

PRACTICAL SESSION 3

14.00 – 16.00 Hands-on and Demonstration on Microscopy and Optical Manipulation

16.00 – 17.00 General Discussion and Case Study on Optical Tweezers

17.00 – 19.00 Round Table Conference

Chairman: Dr. Alfred Owusu, Head, Department of Physics, UCC.

Prof. Ahmadou Wague, Cheikh Anta Diop University

FRIDAY, 11th NOVEMBER, 2011

07.30 - 08.30 Breakfast

MORNING SESSION IV

Chairman: Dr. Ishmael Anderson, Dept. of Physics, University of Cape Coast.

08.30 - 10.00 Resolutions and Recommendations

10.00 - 10.30 Coffee break

10.30 - 12.00 **Closing Ceremony**

12.00 - 14.00 Lunch break

14.00 - 19.00 **Free and Town visit**

19.00 - 20.00 Supper

SATURDAY, 12th NOVEMBER, 2011

06.00 - 11.00 DEPARTURE