5th Spring Plasma School at Port Said

Port Said, Egypt on March 01-05, 2020

ATTENDANCE CERTIFICATE

This is to certify that

Mr. Assem Abdulkarim

from Faculty of Science - Al-Azhar University

Has attended and completed the **5th Spring Plasma School at Port Said (5th SPSP)** which was held under the auspices of the British University in Egypt in Port Said, Egypt March 01-05, 2020.

Please flip the certificate over to find the syllabus of the school.

The certificate can be verified by the name online via: www.egyplasma.com/verification

Professor Waleed Moslem

Chair, 5th SPSP organizing committee

Professor Amr El-Zant

Co-Chair, 5th SPSP organizing committee

The Abdus Salam International Centre for Theoretical Physics

Alexander von Humboldt Stiftung/Foundation

Syllabus of the School (Access Online)

March 01 by 2020: Opening & Introduction

1. Opening by Waleed Moslem
2. A journey to mysterious plasma world by Waleed Moslem

March 02 by 2020: Fundamentals of Plasma Physics

1. Types of plasma and the related force by Waleed Moslem
2. Electrostatic by Mohamed Shihab
3. Mathematical models in plasma physics by Ibraheem Elkamash
4. Magneto-static by Mohamed Shihab
5. Quantum-Dense plasma physics by Mahmoud Afify
6. Laser-induced plasma generation and characterizations by Walid Tawfik
7. Group work (Python and LaTex) by Mohamed Ezzat

March 03 by 2020: Basic Concepts & Plasma Applications

1. Electromagnetic by Mohamed Shihab
2. Atmospheric nonthermal plasma jet and its applications by Kamal Hagag
3. Basic waves in plasma by Waleed Moslem
4. Electromagnetic waves in plasma by Ibraheem Elkamash
5. Plasma propulsion technologies by Mohamed Abd-Al-Halim
6. Applications of laser-induced plasma by Walid Tawfik
7. Plasma in energy research (Fusion and Geothermal) by Mohamed Ezzat
8. Plasma instability and the concept of beta by Waleed Moslem
9. Group work (Problem solving) by Team
10. How to apply for a fellowship by Mohamed Ezzat

March 04 by 2020: Plasma Applications & Research

1. Plasma Applications and Research by day
2. Electrical models of plasma discharges by Mohamed Shihab
3. Nonlinearity (from nature to plasma) by Waleed Moslem
4. Neutral beam injector for future fusion reactors (Helicon Plasma) by Kamal Hagag
5. Biomedical applications of atmospheric non-thermal plasma by Shaimaa Eldeighdye
6. The cutting edge of plasma physics by Mahmoud Afify
7. Plasma and cosmology by Amr El-Zant
8. Scientific publications and How to write a research paper by Waleed Moslem

March 05 by 2020: The 2nd One Day Plasma Conference

(Downstream Researches in Plasma Physics)

1. Plasma flow control by Deyaa-El-Haq Nabil
2. Dynamical effect of laser bumped electron-hole semiconductor by Amany Elgarawany
3. Nonlinear ion acoustic waves in a weakly relativistic plasma by Nora Elshafeay
4. Electrostatic waves in an inhomogeneous plasma at Venus by Alaa Fayad
5. Nonlinear analysis for ion acoustic waves at Venus ionosphere by Faisal Sayed
6. Interaction of injected dust particles with plasma by Safaa Hameed
7. Characterization of photo-neutrons produced by laser-plasma by Eltayeb Hassan
8. Materials engineering challenges in fusion reactors by Mohamed Anwar
9. Linear waves and streaming instability in Herbig–Haro object by Ahmed Hisham