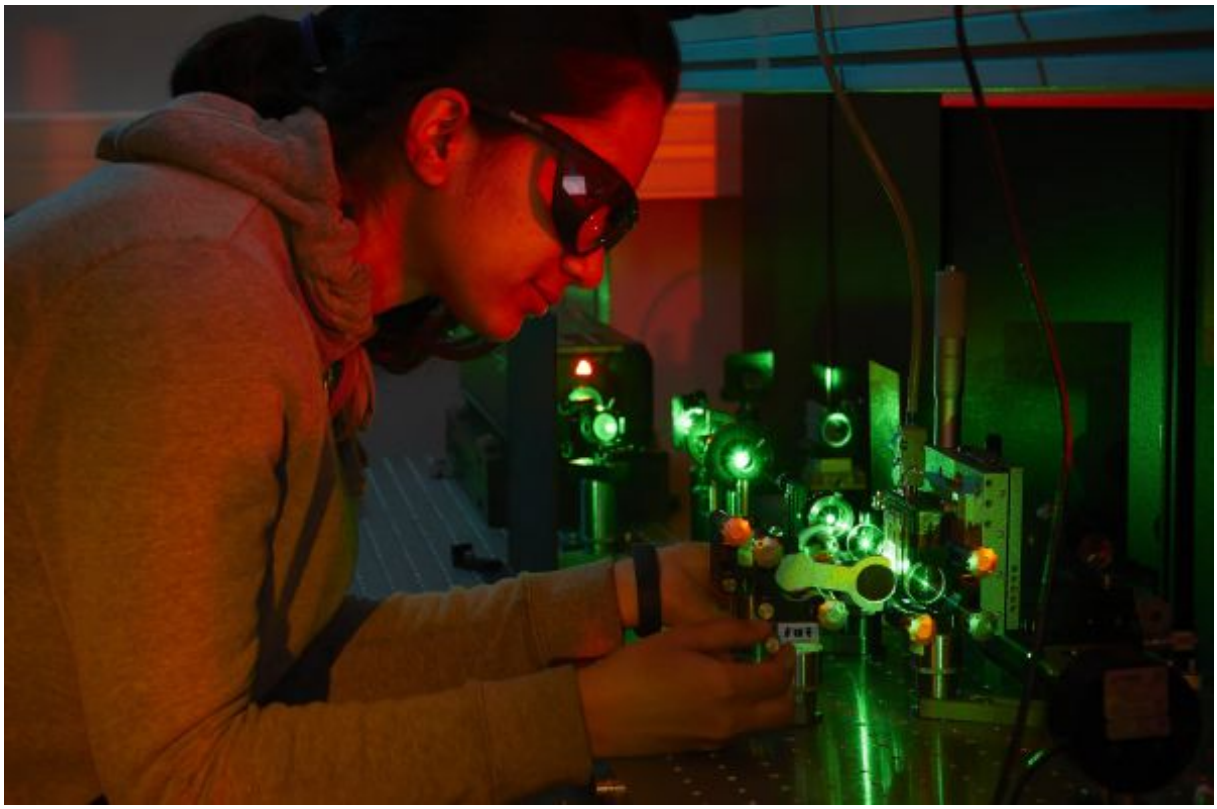


ICFO-KNUST INTERNATIONAL SCHOOL ON THE FRONTIERS OF LIGHT. Photonic Sciences: Applications and Opportunities

October 09, 2023 to October 13, 2023
College of Science, KNUST (Ghana)

** REGISTION FOR THE SCHOOL IS NOW CLOSED **

Summary:

ICFO International Schools on the Frontiers of Light are organized by ICFO Barcelona i partnership with international universities, with the aim to inspire the next generation o researchers in light sciences and related technologies.

? The **5-day School** is organised in partnership with the **Department of Physics** at the **Kwame Nkrumah University of Science Technology (KNUST), Kumasi, Ghana**, and will feature local and international experts in an intensive 1-week course directed to young students wishing to enter the vibrant field of Photonics.?

Topics covered include

Clean Energy
Medical photonics
Ultrafast spectroscopy & Quantum Materials
Terahertz spectroscopy
Quantum sensing
Optical metrology

The event will include lectures, discussion sessions, a professional development workshop to help students interested in opportunities to enter the field, student talks and posters, and social activities to promote interaction between the students and lecturers.
Participants will gain a strong understanding of basic concepts, an introduction to the current state of the art in these topics and have the opportunity to mingle with top scientists from leading institutions.?
SPIE@ICFO Chair Research Internships to conduct a project with an ICFO research group will be offered to selected outstanding students attending the school.
The deadline for applications is 14 July 2023.
We invite post-deadline applications by students from KNUST who would like to attend the school, and from African students from outside Ghana from one of the countries listed belo . A limited number o**finternational travel fellowships** are available to support students fro one of the countries listed below to attend the school.?
The deadline for applications is 1 September 2023.
Confirmed Lecturers & Speakers:

Turgut Durduran, ICREA & ICFO
Morgan Mitchell ICREA & ICFO
Robert Sewell, ICFO
Barbara Polesso, ICFO
Viktoriia Holovanova, ICFO
Allan Johnson, IMDEA Nanoscience
Emmanuel Amuah, ICFO & Aarhus University
Prince-Bawuah, Menlo Systems
Iddrisu Danlard, Sunyani Technical University
Moses Jojo Eghan, University of Cape Coast
Martin Leahy, University of Galway
Peter de Groot, Zygo Corporation
Seth Wayne, Friends Eye Center
Atinuke Adebanji, KNUST

Venue:

Aboagye Menyeh Complex, College of Science (CoS), KNUST, Kumasi

Aboagye Menyeh Complex (College of Science Building, KNUST), shares boundaries with Faculty of Pharmacy and Pharmaceutical Sciences to the north, College of Engineering to the south, and Bureau of Integrated Rural Development (BIRD) to the East. The complex provides office spaces and the majority of the lecture spaces for the College of Science (CoS). It is a 1-minute walk from the University's faculty area solar powered traffic light installation.

Watch Youtube video

Registration & Accommodation:

The school will be limited to a maximum of **50 students**, selected on the basis of academic merit.

Local accommodation for 6 nights will be provided for participating students at a student residence on KNUST campus within walking distance of the College of Science complex, as well as catering during the school.

There is NO fee for students to attend the school.

Travel Fellowships:

A limited number of travel fellowships are available for students from outside Ghana to attend the school, thanks to generous support from the ICTP.

Fellowships can be used to support travel and accommodation costs for participants coming from the following countries:

Eastern Arica: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

Western Africa: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo,

Northern Africa: Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Sudan, Tunisia, Western Sahara

Southern Africa: Botswana, Lesotho, Namibia, South Africa, Swaziland

Middle Africa: Angola, Cameroon, Central African Repoublic, Chad, Congo, Demcratic Republic of the Congo, Equatorial Guinea, Gabon, Sao Tome and Principe, South Sudan

All candidates applying will be considered for all available fellowships for which they are eligible.

For any questions, please contact us at frontiers@icfo.eu

Research Internships:

Up to 2 **SPIE@ICFO Chair Research Internships** to conduct a project with an ICFO research group are also available on a competitive basis to outstanding undergraduate or masters

students selected to attend the school. To be eligible, students must still be enrolled in an undergraduate or masters program when they undertake the internship.

Eligibility:?

We welcome applications from individuals worldwide with a variety of backgrounds including optics, physics, mathematics, electronics, engineering, chemistry and biology.? Candidates must have an excellent academic record, and a strong commitment for scientific research

Priority will be given to masters-level and advanced undergraduate students, although PhD students and young researchers are welcome to apply. Persons with disabilities are strongly encouraged to apply. There are no restrictions of citizenship or g

How To Apply:?

To register for the school applicants must submit

A Curriculum Vitae, including contact details
Scanned copies of your current (Bachelor and Master equivalent) University academic transcripts in English or French
A one-page (max.) letter describing your background, research interests and motivation for attending the school.
Title & abstract for a proposed contributed talk or poster(optional)
Contact details of one potential referee

Applications must be submitted online, and all required application material must be complete in order to be considered.?

Applicants will automatically be considered for the fellowships and / or internships on offer

Deadline

The extended deadline for applications is **1 September 2023**. Successful applicants will be notified the week of 4-8 September 2023.

If you need assistance with a letter of invitation for a visa application, please inform us directly by email at frontiers@icfo.eu

Participating Institutions:

Department of Physics of the Kwame Nkrumah University of Science and Technology (KNUST) is 1 out of the 11 Departments under the College of Science (CoS), KNUST which is made up of two main Faculties and one Research Centre. The Department is envisioned as an international center for advanced research and as a foundation for developing scientific capability in Ghana and Africa. It has over the years succeeded in realizing its sole mission of producing high caliber and competitive Physicists who do not only contribute immensely to the development of Ghana but also fit very well into the global scientific community. The Department focuses on a list of research fields such as Geophysics, Solid State Physics,

Nuclear Science and Technology, Environmental Physics, Material Science and Mathematical and Computational Physics. The Department's teaching programs include BSc, MSc, MPhil and PhD. The Department of Physics is located on approximately one-and-a-half-acre compound and a close neighbour to the Aboagye Menyeh Science Complex Block.
More information about the Department of Physics, KNUST can be found HERE

ICFO is a young research institution that aims to advance the very limits of the science and technology of light, tackling important challenges faced by society at large in all areas of life, including health, energy, information, safety, security and caring for the environment. ICFO is a member of BIST, the Barcelona Institute of Science and Technology, and is situated in Castelldefels, a small town located by the sea just outside of Barcelona, Spain.
More information about ICFO can be found HERE

Contact:

For any questions, please contact us at frontiers@icfo.eu
For any questions related to local organization, including travel, venue, accommodation, etc., please contact physics@knust.edu.gh

Scientific Organisers:

Emmanuel Amuah (Aarhus & ICFO), Joseph Asare-Awuah (KNUST), Dr, Henry Martin (KNUST), Dr, Akyana Britwum (KNUST), Dr. Michael K. E. Donkor (KNUST), Prof. Francis K. Ampong (KNUST), Dr. Robert Sewell (ICFO)