

Preliminary Program
(April 19, 2024)

***Nanotechnology Convergence for
Sustainable Energy, Environment,
Climate Change and Health:
A US-Africa Conference***

July 14-18, 2024

Casablanca, Morocco

Conference Chairs:

**Isabel Escobar, University of Kentucky
Ahmed El-Gendy, University of Texas-El Paso**



Engineering Conferences International
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Sunday, July 14, 2024

16:00 – 18:00	Conference check-in
18:00 – 19:00	Welcome Reception
19:00 – 19:15	Opening and Welcome (Conference co-chairs)
19:15 – 21:00	Dinner

Monday, July 15, 2024

Breakfast

Morning

Plenary Talk

Nanotechnology foundation for emerging science and technology
TBD, National Science Foundation, USA

Coffee Break

Session 1: Nano-Environment 1

This session will cover water treatment, crop technology, and waste water treatment for agricultural activities.

Lunch

Afternoon

Session 2: Nano-Energy 1

This session will cover quantum computing, energy harvesting, sustainability, data storage including nanoelectronics, nanophotonics and nano-optoelectronics.

Coffee Break

Session 3: Nano-Medicine 1

This session will cover medical applications such as MRI diagnosis, biosensors, bioinformatics, drug delivery, cancer treatment including hyperthermia, gene-, chemo-, and radio-therapies.

Free time / set up posters

Evening

Poster Session and Social Hour

Dinner (on your own)

Tuesday, July 16, 2024

Breakfast

Morning

Plenary Talk

Outreach Presentation – NSF

TBD, National Science Foundation, USA

Coffee Break

Session 4: Nano-Environment 2

This session will cover food security, PFAS removal, nano-packaging, water safety and policies.

Lunch

Afternoon

Session 5: Nano-Energy 2

This session will cover nanomaterials for energy applications such as MXenes, graphene, magnetocaloric, exchange bias, Qubit, and topological insulators.

Coffee Break

Session 6: Nano-Medicine 2

This session will cover biophotonics, biofilms, bio-channels, and computational biomaterials.

Free time / set up posters

Evening

Poster Session and Social Hour

Dinner (on your own)

Wednesday, July 17, 2024

Breakfast

Technical Session

Lunch

Conference Excursion

Closing Dinner

Thursday, July 18, 2024

Breakfast

Morning

Session 7: Climate Change

This session will cover global warming, CO₂ reduction, hydrogen storage, atmosphere protection and policies.

Coffee Break

Session 8: Nano-Metrology, Modeling and Simulation

This session will cover nano-characterization and accuracy techniques, nano-measurement uncertainty, nano-safety, theoretical modeling and simulation of nanomaterials.

Closing Remarks and Poster Awards

Lunch

Departures