



Nanotech Futuristic Solutions
Transforming the future with bold innovations



INNOVATION IN NANOTECHNOLOGY, RESEARCH &
 DEVELOPMENT AND INDUSTRIAL APPLICATIONS

Training Course: Nanotechnology and Its Applications for Sustainable Cities and Coasts

29th November – 4th December 2021, Johannesburg, South Africa

Overview

Nanotechnology, the manipulation of matter at the atomic and molecular scale to create materials with remarkably varied and new properties, is a rapidly expanding area of research with huge potential in many sectors. This training workshop will equip professionals and practitioners from various fields with fundamental tools of nanoscience and will make them better prepared in implementing and utilizing nanotechnology in marine science, city planning, science policy advocacy and renewable energy systems. By offering practical sessions on the application of nanotechnology, the training provides a first-hand experience on nanotechnology and helps to close the gap in its potential uses in diverse fields. The training provides a platform for the advancement of technological research and its development for utilization in cities and coasts. This enables the development of policies for better management of wastewater and building of smart green cities. The nanotechnology trainees will act as a think tank for the much needed advancement and expertise of nanotechnology within the Western Indian Ocean (WIO) region and the African continent.

Aims & Objectives

The training will focus on the fundamentals of nanotechnology and its applications in the design of sustainable cities and coasts and in plastic waste and wastewater management. Challenges associated with applications of nanotechnology will be explored and the course will enhance scientific dialogue and strengthen the scientific collaboration among researchers in the WIO region.

Course Topics

- Nanotechnology for Urban planning of coastal cities
- Introduction to nanotechnology and nanomaterials
- Instrumental methods for analysing nanomaterials
- Conversion of plastics to low-cost building materials
- Application of nanotechnology for sustainable manufacturing processes
- Applications of nanotechnology in wastewater treatment
- Application of nanotechnology in the environment and energy sector
- Applications of Bio-nanotechnology
- Exploring problems associated with nanotechnology

Target Audience

- Target audience includes, but is not restricted to, scientific researchers, science advocacy experts, marine scientists, city planners, University postgraduate students and engineering professionals who are interested in nanotechnology.
- NOTE: This call applies to participants from the Western Indian Ocean Members States in Africa and the Adjacent Island States.

Course pre-requisites

- Interest in working in nanotechnology and sustainable cities and coasts
- Good Working knowledge of English language
- Computer IT skills; participants required to bring their personal laptops

Outcome

A research communique will be drafted to guide on the application of nanotechnology in establishing sustainable cities and coasts.

Duration: 5 working days

(~20 hours classroom sessions and 10 hours practical sessions including an assessment at the end of the course). Participants must attend all sessions.

Training Venue:

Mintek, 200 Malibongwe Drive, Strijdom Park, Randburg, 2194, Johannesburg, South Africa

Application Process:

Interested applicants are required to fill online form by 30th September 2021:

<https://forms.gle/1P3aXPZV7uDwBLCNA>

And send a résumé to: nanotechfuturistic20@gmail.com

cc: v.ochanda@wiomsa.org and secretary@wiomsa.org

Lecturers:

- Prof. Neil Coville
- Prof. Sabelo Mhlanga
- Dr. Bridget Mutuma
- Dr. Emmanuel Midheme
- Ms. Gelica Inteca

Fees:

All fees including training costs, visa application fee, air tickets to and from South Africa, airport transfer, accommodation for successful applicants will be provided through a generous funding by Western Indian Ocean Marine Science Association (WIOMSA) through Nanotech Futuristic Solutions (NFS) Limited.

Contacts:

Secretary WIOMSA:

Email: v.ochanda@wiomsa.org

Or

Coordinator NFS:

Email: nanotechfuturistic20@gmail.com

Useful sites:

<https://nanotechfs.co.ke/>

<http://sabinano.co.za/>

<https://www.wiomsa.org/>

