Harare Institute of Technology

HIT

success through innovation

DEPARTMENT OF CHEMICAL AND PROCESS SYSTEMS ENGINEERING

NANOTECHNOLOGY TRAINING COURSE

OVERVIEW

The Department of Chemical and Process Systems Engineering of the Harare Institute of Technology is offering an intensive three (3) day short course on Nanotechnology. Nanotechnology has emerged as one of the leading fields of science and engineering having tremendous conceivable applications in diverse disciplines and has a huge potential to transform the Zimbabwean industries. Applications of nanotechnology are expected to impact essentially every technological sector and in due course transform the socio-economic environment of the world at large. This course brings together relevant knowledge from the disciplines of basic sciences to give a vital understanding of the integrated multidisciplinary nature of nanoscience and nanotechnology for generation of novel and high value nano-enabled products. It will be conducted by a qualified and experienced Nanotechnologist and a certificate of attendance will be offered at the end of the training.

COURSE SYNOPSIS

Introduction to Nanoscience and Nanotechnology, Synthesis and Characterization of Nanostructured Materials, Current trends and Applications of Nanotechnology, Commercial production of Nano-enabled products, Intellectual Property (IP) generation, Market Analysis of Nano-enabled products in Zimbabwe and world-wide, Value addition and Beneficiation of various resources using Nanotechnology, Nanotoxicology, Computer (on-line) based practical work, Laboratory based practical work.

TARGET NICHE

- **Academics and/ Researchers** - Chemical Engineering, Mechanical Engineering, Mineral Processing, Polymer Technology, Civil Engineering, Metallurgical and Materials Engineering, Chemistry, Biology, Biochemistry, Defence and Security, Food Science and Technology, Medicine, Pharmacy, Biotechnology, Agriculture
- **Industrialists** - Cement Manufacturing, Mineral Processing, Polymers/Plastics, Metal Fabrication and Foundry, Paint Manufacturing, Water and Waste Water Treatment, Textiles Technology, Rubber Products and Tyre Manufacture, Battery Manufacturing, Ceramics (Tiles, Brick manufacture, Clay Products etc), Fertilizer Manufacturing, Pharmaceutical Industries, Detergents, Food and Beverage Manufacturing etc, Agro Chemicals etc.

TRAINING COSTS

A fee of USD 250 will be charged per individual and will cover registration, course manual, refreshments, and lunch.

BANKING DETAILS: CBZ, Sapphire Branch - A/c #: 02420583120037

DATE

13 -15 June 2018

EXPECTED OUTCOMES

The course will offer participants the opportunity to:

- gain knowledge of materials and their properties at the atomic and nanometer scales, including an understanding of the intimate relationship between the scale and the properties of materials.
- appreciate current applications and state of the art within nanoscience and nanotechnology
- gain practical skills in synthesis and characterization of nanostructured materials
- appreciate potential applications of nanotechnology in process and product improvements
- strengthen research and innovation in nanotechnology within universities, research institutions and industry
- enhance local and international collaboration among stakeholders involved in nanotechnology activities.

CONTACT DETAILS

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