

Interdisciplinary Graduate School in Laser-based Manufacturing Technologies

The lectures and the practical sessions are given by Laser based Manufacturing experts from:

- 1. Laser Enabled Manufacturing (LEM) Research Group, NLC Council for Scientific & Industrial Research (CSIR), Pretoria Campus, South Africa.**
- 2. Stellenbosch University (SU), Stellenbosch, South Africa.**
- 3. Federal University of Petroleum Resources (FUPRE), Effurun, Nigeria.**
- 4. Botswana International University of Science & Technology (BIUST), Palapye, Botswana.**

Venue: National Laser Centre (NLC), Council for Scientific & Industrial Research (CSIR), Pretoria Campus, South Africa.

Targeted Audience: Final year undergraduates, Masters and PhD students in Industrial & Manufacturing Engineering; Metallurgical & Materials Engineering; Mechanical Engineering and Biomaterials/Biomedical Engineering.

Date: September 3-7 2018



COURSE DESCRIPTION:

Interdisciplinary Graduate School in Laser-based Manufacturing Technologies (IGSLbMT) is an intensive 5-day summer course aimed at providing postgraduate students with strong tutoring from the commencement of postgraduate programmes with a view to defining an optimised path throughout their research activities. IGSLbMT comprises of 9 lectures and 3 practical sessions aimed at helping participants to broaden their knowledge in:

- Lasers and optics and their use materials processing
- Industrial hazards associated with laser processing and the international standards which need to be adhered to
- Fundamental principles of laser-materials interactions laser cladding, laser welding and laser metal deposition
- How process, materials and design parameters influence the quality characteristics of the laser processed components
- Characterisation and quality control issues in laser processed samples
- Modelling and simulations in laser materials processing
- LbM practicals in laser cladding, laser welding and laser metal deposition

Registration:

To register for this event, each participant is expected to pay a registration fee of US\$500.00.

The registration fees cover accommodation and lecture/practical materials. The registration fees is to be paid into ABSA: Acc. Name: CSIR, Acc No.: 540002258, Branch Code.:632005, Reference: IGSLbMT.

Support Funding Application:

Limited funding provided by the African Laser Center (ALC) is available to cover travel expenses to CSIR, Pretoria Campus and feeding for participants.

Please use the attached application form to apply:

The funding application **deadline is June 30, 2018**. All applicants will be notified of funding decisions by **July 15, 2018** via email.

NB: Registration is a separate process from the funding application process. This means you will ONLY qualified for the ALC funding once you have paid up YOUR registration fees.