



Department of Industrial & Manufacturing
Engineering

UNIVERSITY OF MALTA

PUBLIC LECTURE



**LASER BEAM TECHNIQUES IN MICRO - AND NANO -FABRICATION:
INSTRUMENTS AND METHODS**

Dr Elias Chatzitheodoridis

National Technical University of Athens, Greece

Engineering Drawing Room

Faculty of Engineering

UNIVERSITY OF MALTA Tuesday, 11th December, 2007 at 16.30 hrs.

Abstract:

An introduction will be made on the conventional laser beam micromachining techniques for microfabrication. More state-of-the-art techniques for micro/nanolithography based on two-photon-absorption will also be discussed. In addition, the presentation will also refer to some applications, mainly concentrating on photonic structures. An effort to cover the most important current and future applications will be made with examples.

Dr Elias Chatzitheodoridis:

Elias Chatzitheodoridis was born in Athens and got his first degree in Geology/Geochemistry at the University of Athens. He continued his studies in England, at Manchester University, pursuing his M.Sc. and doing research in the area of meteorites - specifically meteorites which could provide evidence for secondary processes that are related to life on the planet. His Ph.D. was again at the Manchester University specialising on mass spectrometry beam techniques, namely Secondary Ion Mass Spectrometry (SIMS), including aspects of development of the system and applications on materials. He then entered the area of microfabrication, within the frame of several European projects, targeting to the fabrication of three-dimensional photonic crystals using LiGA and laser beam techniques (FORTH Institute in Greece and later at a private company in Austria). He also trained and did research in the area of MEMS handling and assembly (Technical University of Vienna). Currently he is a lecturer at the National Technical University of Athens where concurrently with teaching, he carries out research which combines his background on natural sciences and that on technology by developing methodologies and instrumentation targeting again to the search of extreme terrestrial and extraterrestrial life.

(Refreshments sponsored by the Institution of Engineering Designers Malta Branch will be served after the seminar)

All those interested in attending this FREE seminar should book a place by phoning Ms Sharlene Cachia on Tel. No. 23402061 or send an e-mail on sscach@eng.um.edu.mt

