

Dr. Dushyant C. Kothari



Dr. Dushyant C. Kothari is a Professor of Physics, Honorary Coordinator, University Computerization Centre, and Coordinator, Centre for Nanosciences and Nanotechnology. He has had association with the Istituto per la Ricerca Scientifica e Tecnologica, Trento, (Italy) and University of Trento as Guest Scientist (1988-1990) and Visiting Professor (1991-94). He has worked as General Manager (R&D) and Vice President (Technology) at Multi-arc India Ltd (1997-1999). He is a life-member of Indian Physics Association, Indian Vacuum Society and Materials Research Society of India.

Dr. Kothari has been contributing to the field of Ion Beam modifications since 1976. He is co-author of over 64 refereed research papers in the field, in research journals of International repute. His past contributions include: ion beam treatment on steels to improve wear and corrosion resistance, ion beam assisted deposition, ion beam mixing, PVD coatings and Plasma Nitriding. He has also developed Ion sources, RF accelerating stages and other ancillary equipment for low energy ion accelerators. His interest in fundamental of ion beam interaction with matter includes the studies on radiation induced segregation and radiation damage. Industrial scale process optimization and application engineering of various PVD coatings have been carried out under his supervision. He has lead a team to develop an industrial scale Plasma Nitriding equipment. His present research interests are is the Materials for ADSS and Ion beam synthesis of Nano-materials. In nano-synthesis Dr. Kothari's group has developed a technique called "Defect Engineering of Nano-particles", which produce metal nano-composite optical glasses using ion beams and avoids high temperature annealing. The control of size and density of the nano-particles is very easily achieved in this technique. These nano-composite glasses have possible applications in high speed optical switching. For the first time the International Series of Conference on Surface Modification of Materials by Ion Beams (SMMIB) was brought to India by Dr. Kothari. 15th International Conference on Surface Modification of Materials by Ion Beams (SMMIB15) was held in Mumbai during 30th September to 5th October, 2007.

In the world of virtual education Dr. D. C. Kothari has contributed by propagating the use of Technology in developing interactive coursewares. His virtual laboratory was welcome by learners from mofusil areas who did not have opportunity of working in labs equipped with sophisticated instruments. About 1000 e-learning videos have been converted from video tapes for web-castng and are now available on the

University website. has also worked on a novel concept of developing Virtual Laboratory and expand the student community base. The Virtual Laboratory allows a learner to perform experiments on computer sitting in remote areas or for that matter anywhere and anytime. He has distributed a Laboratory Manual of the Virtual Experiments and accompanying CD to various colleges. He has taken-up the task of making University administration efficient and transparent through the use of Information Technology. SAP ERP project is being implemented under his coordination. For the ERP implementation an operating model is developed for integrating an “Affiliating University Structure” of an Indian University to a “Campus (or Research) University Structure”. T