
Editorial

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Biographical notes: Ioannis N. Prassianakis is Professor of Mechanics in the National Technical University of Athens, Section of Mechanics Department of Engineering Science. He is President of the Hellenic Society of Non-Destructive Testing (HSNT) since 1997. His scientific areas of speciality are fracture mechanics, strength of materials, experimental mechanics, NDT, qualification and certification. He has authored 12 books for strength of materials and NDT and has presented 95 papers in international journals and conferences proceedings. Also he has 60 publications in various Hellenic and foreign journals. He has participated in 40 conferences and has organised ten international and national conferences on NDT. He has supervised more than 90 Diploma and PhD thesis. He is member of 30 international and national scientific societies and committees.

Janez Grum is Professor of Materials Science at the Faculty of Mechanical Engineering, University of Ljubljana, Slovenia. He is also the Founder and Editor-in-Chief of a new journal, the *International Journal of Microstructure and Materials Properties (IJMMP)* and has been Editor of the *Journal News of Society for Nondestructive Testing* by the Slovenian Society for Non-Destructive Testing, Ljubljana, Slovenia since 1994. He is also a member of the editorial board of several international journals. He is the Editor of the six *NDT Conference Proceedings*, two ASM and Marcel Dekker book chapters and five books with several reprints. He has also published more than 200 refereed journal papers and more than 400 conference papers on heat treatment and surface engineering, laser materials processing and materials testing, including nondestructive testing.

The papers included in the present issue of *IJMPT* were presented at the 4th International Conference on NDT of the Hellenic Society for NDT (HSNT). The conference took place in Chania-Crete Greece on October 11-14, 2007. Chania is located in the northwestern side of Crete, the island where the famous Minoan civilisation was developed 45 centuries ago, and is a lively, exciting and fascinating city.

The theme of the conference, 'Non destructive testing: skills- applications-innovations, industrial manufacturing- aerospace- marine' was chosen in order to emphasise and promote the NDT methods to a wide range of industrial and scientific areas.

The NDT is the unique hope for the safe development and survival of a contemporary society and economy. This kind of testing is useful and crucial given the fact that only by these methods, the materials that will be used or are already used in a construction can be checked thoroughly. Accordingly, this is the only way to guarantee the qualitative and safety level of any technical construction.

The aim of the Conference was to bring together scientists and engineers, in an attempt to exchange knowledge and recent experience in research and development activities, relevant to the NDT field.

The conference venue was the 'Megalo Arsenali', the building of the Centre of Mediterranean Architecture (CAM) a historical and wonderful Venetian building of the 16th a.c. century, located in the old port of the famous and beautiful historic city of Chania.

The technical program contained 112 papers, 85 as oral lectures and 27 as poster presentations, 62 of them originated outside Greece. The conference was organised in sessions whose main subject was related to industrial applications as well as to scientific areas. The book of abstracts and the proceedings were included in a CD and distributed during the conference.

The scientific board of the conference selected 29 papers for publication, of which 10 will be published in the *International Journal of Microstructure and Materials Properties (IJMMP)* and 14 will be published in the *International Journal of Materials and Product Technology (IJMPT)*. Additionally, another two spontaneous papers with the similar topics were added. The selected papers were strictly reviewed and chosen on the recommendation of the reviewers considering the scientific area covered by each of the two journals.

The topics covered by the conference included all thematic areas of current research and industrial use of NDT. The main topics of the conference were: Applications and innovations of NDT methods, Inspection, Training and Certification, Composite materials, Welding and Adhesion, Digital Radiography, NDT Technology Transfer, NDT for the diagnostics and refurbishment of cultural heritage monuments, Applications for the shipping and aerospace industries, Applications for the power generation including nuclear power technologies, Theoretical modeling, NDT applications in the civil structures industry, Non-Contact NDT methods, Industrial Manufacturing, Aerospace and Marine.

The presented papers in the conference covered all the NDT methods from a theoretical and experimental point of view. More specific, the conference included the presentation of papers concerning the qualification and certification of NDT personnel, research concerning the examination of composite materials by various NDT methods, many applications of ultrasounds, industrial radiography, acoustic emission, thermography, eddy currents, dye penetrants in industry, important applications of many NDT methods for the testing of artworks and monuments, infrastructures and civil engineering works and finally important analytical methods concerning the NDT.

More than 350 people attended the conference. Among them were authors, attendee, exhibitors and sponsors coming from 30 countries from abroad and Greece.

During the conference opening, the president of the Hellenic Society of NDT, Professor Ioannis N. Prassianakis, emphasised that 'NDT corresponds to economy and safety in a contemporary free, peaceful and democratic society'. Many distinguished participants had the opportunity to express their thoughts and welcome the participants during the opening ceremony. Dr. Gerhard Aufricht, President of the Austrian NDT Society, represented the European Federation for Non Destructive Testing (EFNDT). Dr. Sotirios J. Vahaviolos, former president of American Society for Non Destructive Testing (ASNT), closed this session that has given the opening lecture with the title: NDT-the science, the business and the future forecasts.

During the conference, the annual meeting of EFNDT Board of Directors was held in the building of CAM. The gala dinner took place in the restaurant Nykterida (bat), which is located in the magnificent place of Akrotiri near the harbor of Souda. Finally, the conference finished with an excursion to the famous Minoan ancient city of Knossos.

The conference constituted the ninth conference organised by the Hellenic Society of Non Destructive Testing. Earlier, five National and three International NDT conferences had been successfully conducted by the same society.

The Hellenic Society of NDT was founded in 1987. It is the unique Hellenic, national and non-profit society for NDT which is also member of EFNDT and International Committee for Non Destructive Testing (ICNDT).

HSNT encompasses today more than 400 members who originate from the universities, industries, companies and organisations of the country with approximately more than one thousand NDT inspectors.

The tasks of the association are to promote the technology of NDT in Greece, to organise lectures and educational seminars in NDT, to promote theoretical and practical research in NDT and publish the results, to provide advice on NDT quality control, to constantly keep members up-to-date in NDT subjects and to make available and publish magazines, pamphlets and books on NDT.

The society has signed agreements of mutual cooperation and collaborates with similar societies worldwide, such as the: ASNT of America, BistNDT of England, ABENDE of Brazil, DGZFP of Germany, BSNDT of Bulgaria, SSNDT of Slovenia etc. It has also signed the agreement of multilateral mutual recognition of NDT – Personnel certification schemes with other European countries (EU/EFTA).

HSNT is a founding member of Balkan Peninsula Society of NDT (BP S NDT) and of the East European and East Mediterranean Society of NDT (SEEEM NDT).

The article with the title 'NDT in Greece' published in the scientific magazine *Insight* on June 1999, (Vol. 41, No 6, pp. 350–371, June 1999) was essential for the international recognition of HSNT.

The Hellenic Accreditation System (ESYD) has accredited HSNT in March 2005, according to ELOT-EN-ISO/IEC 17024 standard, as an independent certifying body, in order to assemble examination centers for qualification and certification of NDT personnel in Greece. HSNT has been also approved by EFNDT in 2005. At the moment HSNT has approved one Examination and Certification Center (KETEPE in Bolos, Greece).

Sincere thanks go to all participants and exhibitors especially to those that travelled to Chania, Greece. We hope that they enjoyed the conference as much as we have dreamt of. Many thanks go also to all sponsors of the conference for their support and to the members of the organising and scientific committees, who planned the sessions and achieved a close connection between industry and research and development, for their

excellent work, as well as the authors and numerous other individuals who contributed to the success of that conference.

Finally, special thanks are due to the *IJMPT* that agreed to host these scientific papers and also to the authors for contributing their papers to this special issue of the *IJMPT*. This is the result of the serious work of reviewers and the authors. The papers satisfy high standards of quality.