



NDT Means Economy and Safety in a Contemporary, Free, Peaceful and Democratic Society

Address Speech on the opening ceremony of the 4nd International Conference on NDT of HSNT
by

Professor I. N. Prassianakis, President of HSNT

National Technical University of Athens, Faculty of Applied Mathematics and Physics Sciences,
Department of Mechanics, Laboratory of Strength and Materials, Iroon Polytechniou 5,
Gr-157 73, Zografou Athens, E-mail: prasian@central.ntua.gr

Dear colleagues,
Dear representatives of Universities, Institutions and the State,
Dear Participants and Students,
Ladies and Gentlemen,

I have the pleasure and the honor to welcome all of you on behalf of the Hellenic Society of NDT Board of Directors and the conference Organizing Committee and to express our warmest thanks for your participation in our 4th ICNDT, that our society organized to this blessed from the God and endowment from the nature land.

I welcome you to the beautiful city of Chania, a heavenly and pure land brimming with natural beauty, history, memory and culture

Chania, have been built on the ruins of ancient city of Kydonia, which according to the Hellenic mythology was built by the son of the king Minoa named Kydon. It has seen and survived many invaders, but has also tasted civilizations that left their marks on building faces, castles, walls, antiquities, monasteries and churches.

We welcome you in the beautiful and hospitable Crete, in the island where 4000 years ago an exceptional and brilliant civilization flourished, the Minoan civilization, the most ancient civilization of European Continent. In the island that according to the Greek mythology was given birth the father of Gods of ancient Greeks, Zeus, from Saturn and Rea. Zeus wedded Europe, the daughter of Phoenician King Agenor, from whom the name of the continent Europe (in Greek Ευρώπη) has ultimately been taken and gave birth to the King Minoa.

We welcome you finally in the island that has given birth to the famous writer Kazantzakis, to the famous painter El Greco and to the well-known politician Eleftherios Venizelos.

Monuments of Minoan and later periods, but also other archaeological discoveries that are saved up to today, testify that the man, then, knew enough not only for the quality of life, but also for the quality of technical works that he carried out.

Thus, the high technological level that we enjoy in the beginning of 3rd millennium is due in a lot of parameters and realizations of the man, like the theoretical knowledge that we have in various sectors of science.

One of the most important possibilities of nowadays is the use of materials with properties that never before had been put in the service of the man. From the Caverns or the Stone Residences and the simple machines the "Wise Man" creates many multi-storied skyscrapers, airplanes, boats, trains, robots and other super constructions.

All these marvels of modern technology are manufactured from materials, which are selected carefully and have the desirable properties. The manufactured objects should be checked periodically, because the properties of the materials do not remain constants in time.



The properties of materials and constructions can be measured mainly by two basic ways: The Destructive and the Non Destructive Testing Methods.

NDT ensures fast, reliable, economic and safe testing, particularly in the case of high-risk constructions.

Nondestructive testing is a branch of the materials science, which incorporates all the technology for detection of discontinuities and measurement of significant properties of materials.

A distinguished of great importance application of NDT methods is the testing of the monuments and the archeological objectives, where the destructive way is strictly forbidden.

There was not Accreditation of Quality and particularly the ensuring of the Total Quality today, if there was not used the NDT.

As it is well-known Nondestructive Testing started to be applied for testing materials, in their modern form, after the World War Two. This happens mainly because the development of other relative sciences as the physics, electronics, mechanics, fracture mechanics, computer sciences etc, on which they based, was indispensable.

On the other hand it is well known that destructive testing was developed after the 17th century After Christ.

The truth, is that the Non Destructive Testing was applied for testing materials and constructions and became acceptable as scientific method before the appearance of Destructive Testing and also that this way of materials testing was known and was applied by the people, in the far antiquity, thousands years ago, around the world.

Based on historical and scientific information, that the archaeological and scientific research have brought in the light, we are led to the conclusion, that the ancient Greeks e.g., knew and also applied the Non Destructive Testing for the qualitative control of the materials that they used, by subjective way, that is to say with the help of the five human senses (sight, hearing, touch, smell and taste) with which the mother nature has endowed us.

For each marketable good, as for the technological products of ancient Greeks, the production followed the qualitative control.

As it is well known, in a lot of cases the Non Destructive Testing of materials in nowadays is carried out with similar way that is via the five human senses.

Today new powerful appliances and instruments, and simple techniques of application of NDT methods in the qualitative control of materials and manufactures are developed.

There would not be manufactured safely constructions or there would not exist such progress in medical science without the contribution of Non Destructive Testing.

NDT is a modern tool that provides the possibility for better quality of life, in a safe and healthy environment with better, more safe and durable and more economic constructions.

NDT means economy and safety.

The importance and the contribution of Non Destructive Testing in the quality and in the safety of constructions have imposed the training and establishment of a great number of high scientific and technological level national and international standards, regulations and codes.

The safe application of these methods, apart from the suitable equipments, requires very well educated and certified personnel from certified and accredited bodies according to the appropriate national and international standards, (as e.g. to the ISO-EN/IEC 17024, the EN 473 and the ISO 9712).

In each country the management of this work is carried out mainly by national not profit character societies, which have been created from all involved in NDT bodies of each country, industry, NDT personnel, laboratories of NDT, educational centers, Universities etc. One society, as it is well known, from each country participates in the two main international



unions of NDT, the International Committee for NDT, the ICNDT, which was founded in 1955, and the European Federation of NDT, the EFNDT that was created on 1984.

Aims and responsibility of these bodies are the harmonized promotion of all subjects that concerns the NDT, in all countries, including the technology, the research, the education, the certification of NDT personnel, etc.

They organize every four years the International Conferences on NDT. The Russia Society in Moscow will host the next EFNDT European Conference on NDT, the 10th, in 2010. While China society of NDT will host the next International Conference on NDT of ICNDT in Sangai in 2008. HSNT is intended to submit proposal in order to host the 11th ECNDT of EFNDT in Athens in 2014.

All these NDT activities in the area of education, research, certification of personnel, equipments ect contribute exploitation of the NDT as well as to their harmonized development and use with obvious benefits for the global economy as well as for the constructions and humanity safety.

However all these are not enough. In my opinion the attempt must be turned to the University education (under graduate and post graduate level). It's the time for the creation of the NDT Engineer.

And, some information concerning our Society:

In our country the national society of NDT is the Hellenic Society of NDT, the HSNT. It was founded in 1987 with a no profit character scientific national association. Thus, today we celebrated the anniversary of 20's years from its establishment. HSNT is member of EFNDT and ICNDT.

Its main aim is the promotion of NDT in our country harmonized to the international agreements that have signed with EFNDT as well as the ICNDT and many other national NDT societies.

Today it enumerates more than 400 members, which in their majority are managers of enterprises and industry, Academic Professors, as well as the most holders of level II and III certificates of appropriateness of personnel on NDT of our country.

HSNT, except the current conference has also organized nine national, and international conferences of NDT.

The Hellenic Accreditation Council accredited HSNT, according to the European standard ISO-EN/IEC 17024 on 2005. Also the same year it was approved by EFNDT.

Before its accreditation the needs for the certification of NDT personnel in our country was covered by a number of education and examination centers, which were in collaboration with accredited bodies of abroad. It is the main reason that HSNT has not certified the majority of Greek NDT personnel.

In Greece today, more than 80 corporations, industries, companies and Technical Universities, occupying above 1000 individuals, uses the Non Destructive Testing. The demand of specialized personnel on NDT increases always.

Also, the last years, many educational institutions, technical schools and universities, have introduced in under graduate as well as in postgraduate programs of study the NDT, while at the same time appreciable research in the region of NDT is carried out.

In our country important progress in the area of NDT is observed today. It is confirmed by the rapid growth of last years, by means of the research carried out in this region by the universities, the research centers and the industry, as well as by the great number of high quality big technical works, which were executed for the needs of Olympic Games, that took place successfully three years ago in our country.



Main objective and aim of our current conference is the exchange of opinions on the last developments, among the experts of international community, on the NDT.

Ladies and Gentlemen,

Today HSNT celebrates except this event, that is to say, the biggest conference on NDT that ever took place in our country also the anniversary of 20's years of its life. So, we thank all of you who came from every part of the world, but also from each corner of our country.

Ending my short welcome I would like to express our gratitude to all of our sponsors, and exhibitors, without the support of which the successful conduct of this conference would not be possible.

We thank all of you and we wish success in the works of our conference and to all of you a good stay in this pleasant and hospitable place and we hope that you will pass well, knowing apart from new elements of science of NDT and elements so much from the ancient culture that was developed in this island by the Minoan period, up to today, as from the internationally well known popular traditional and certainly the internationally acquaintance and healthy Cretan Cuisine.

Thank you