Year I—Introducing NDT: a new journal on non-destructive testing science, technology and their applications

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Editorial

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It is with great pleasure that the journal *NDT* (ISSN 2813-477X) [1] is being announced here as a new scientific framework for dissemination of international peer-reviewed research on non-destructive testing science, technology, and their applications. Non-destructive testing is commonly used in a variety of areas, including, but not limited to, archaeology, forensic engineering, geophysics, mechanical engineering, petroleum engineering, electrical and electronic engineering, civil and environmental engineering, systems engineering, aeronautical engineering, data science and artificial intelligence, medicine and biological sciences, and arts [2]. Nowadays, the tremendous and transdisciplinary growth in the use of non-destructive theories and approaches has triggered exciting new research questions and stimulated the research community to find solutions to increasingly complex challenges, including the development of new concepts, theories, and paradigms. The observation of a more vibrant and dynamic international research environment focusing on advancing sectoral science for stand-alone and combined techniques has been the driving factor to conceive and initiate the *NDT* project.

Besides the advancement in the stand-alone use of conventional and state-of-the-art technologies and methods in the non-destructive testing area of science, the sensing, processing, integration, and fusion of multi-source, multi-scale, and multi-temporal data and information are laying the foundation for future research developments [3]. It is believed that moving in this direction will greatly contribute to enhancing the capabilities of current methods and solve historical and new challenges, as well as unconventional problems that have, so far, not been considered by the scientific community. Along with the observed increase in the pace of research in this field, it is expected that this new multi-tasked dimension will add novel transdisciplinary developments and greatly advance knowledge across the scientific community in the near future.

With remarkable and rapidly developing research studies, their outcomes will require appropriate and on-time dissemination to picture out these findings from the various aspects of non-destructive testing science in an effective manner [4]. With this in mind, achieving high standards of quality, significance, and impact of research remains an indispensable duty and a milestone. Due to the relatively limited number of specialist scientific journals, it is fair to note that the available capacity for disseminating high-quality international research might struggle to meet the forthcoming demand for peer review of articles and their publication. This includes pioneering studies and research advances arising from established and novel non-destructive testing areas—all of which will deserve international dissemination and recognition in a timely and professional publication fashion.

In this context, *NDT* will aim at enhancing the capabilities of conventional and emerging technologies in new investigation settings and complex scenarios through the dissemination of more inclusive and interdisciplinary theoretical, numerical, and practical scientific contributions. The journal's focus covers three major areas: (i) the collection, processing, modelling, fusion, and interpretation of data to enhance research for

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stand-alone non-destructive methods and their applications; (ii) the development of multi-source, multi-scale, and multi-temporal diagnostics and monitoring resources; and (iii) the design and implementation of state-of-the-art technological solutions that exploit new paradigms through the use of different physical and working principles of sensing. It is believed that research for the above areas can be considered as more strictly referring to the following domains:

- Advances in NDT methods, theories, and new developments (stand-alone or combined use of conventional and state-of-the-art NDTs);
- Sensing, processing, integration, and fusion of multi-source, multi-scale, and multi-temporal data and information from NDT technologies;
- Innovation and research for the development of new, fully deployed, and prototype stand-alone or multi-sensing hardware and software technologies;
- ICT for NDT data management and visualisation;
- Contributions of NDTs to the development of new standards, policies, and best practices.

NDT seeks to publish regular research papers (articles), reviews, technical notes, and short communications. An Editorial Board comprising highly accomplished international scientists in the sector will ensure a rigorous peer-review process for the selection of novel and high-quality research. As the Founding Editor-in-Chief of *NDT*, it is, therefore, with the utmost pleasure for me to announce that this journal will be seeking, peer reviewing, and publishing related work. The journal will aim to establish itself amongst the leading journals in this fascinating and constantly evolving area of science.

Conflicts of Interest: The author declares no conflict of interest.

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Short Biography of Author

Prof. Dr. Fabio Tosti received his M.Sc. and Eng. degrees (cum laude) in Infrastructure and Transportation Engineering from Roma Tre University, Rome, Italy, in 2010, and his Ph.D. degree in Civil Engineering with European Doctorate Label (excellent rating) from Roma Tre University in 2014. Prof. Dr. Tosti is a registered Chartered Engineer, a Professor of Civil Engineering at the School of Computing and Engineering, University of West London (UWL), London, UK, and the Director of "The Faringdon Research Centre for Non-Destructive Testing and Remote Sensing" at UWL. His research interests include the development of new algorithms, methodologies, and models for geoscience applications and the non-destructive and remote sensing assessment of civil and green infrastructure. He has authored/co-authored over 210 research publication records and delivered numerous keynote and invited lectures. Prof. Dr. Tosti was a recipient of the ECSs Award by the European Geosciences Union (EGU) in 2017 and several Best Paper Awards at international conferences, including the IEEE AGERS 2021 and TSP 2020. He was the General Co-Chair of the 3rd and 2nd Int. Workshop on Signal Processing Techniques for GPR Applications (SPT4GPRA) in 2022 and 2020, respectively, and he has led technical sessions in 50+ international conferences. He is the Founding Editor-in-Chief of *NDT* (MDPI), and an Associate Editor of various international peer-reviewed journals.