



TU1208 GPR Association: An overview of the scientific activities carried out in 2018

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TU1208 GPR Association (www.gpradar.eu) is a non-profit international scientific association founded in 2017 as a follow up initiative of COST (European Cooperation in Science and Technology) Action TU1208 “Civil engineering applications of Ground Penetrating Radar,” to continue the excellent work that was done in the framework of the Action and further support cooperation between Universities, research centres, private companies and public agencies active in the Ground Penetrating Radar (GPR) field. The primary objective of the association is to increase and exchange scientific-technical knowledge and experience of GPR technique, while promoting a wider and effective use of this safe and non-destructive method. TU1208 GPR Association is open to scientists and professionals from all countries (not only to members of the recently ended Action); in 2018, 40 members from 28 institutes in 14 countries joined the association.

The **research activities** carried out in the framework of TU1208 GPR Association cover all areas of GPR technology, methodology, and applications. This presentation will offer an overview on the most innovative studies carried out by association members in 2018, including the design and realization of novel GPR prototypes for educational purposes and UAV surveys, the definition of new procedures to test the performance of GPR systems, the development and implementation of innovative electromagnetic modelling and signal processing methods, and the execution of cutting-edge GPR surveys in the areas of civil engineering, environmental engineering and cultural heritage management.

The association is very active in the **organization of scientific events**, such as conferences, conference sessions, training schools (TSs) and dissemination workshops. In this presentation, the main events held in 2018 will be shortly resumed. We are especially satisfied about a TS on “Ground Penetrating Radar for civil engineering and cultural heritage management” (Rome, May 2018) that was successfully organized in cooperation with Sapienza University of Rome (in the framework of the “Conferences, Seminars and Workshops” programme), University College London (in the framework of the “Rome Regional Engagement” programme), and Associazione Italiana del Georadar. This TS was awarded with the European Year of Cultural Heritage label and included practical sessions in Basilica Papale di San Paolo Fuori le Mura where students could discover and map, for the first time, the early Christian archaeological structures underlying the Quadriportico and Cloister.

TU1208 GPR Association publishes open-access scientific papers, reports, books, and educational material. The most ambitious editorial initiative of the association is the founding and management of the **first peer-reviewed scientific journal dedicated to GPR**: *Ground Penetrating Radar* (www.GPRadar.eu/journal, ISSN 2533-3100). This is an open-access open-science journal, published quarterly. Papers are published free of charge; the journal welcomes research and review papers, tutorials, software/data papers, communications and comments (coming from any research team, obviously, and not only from association members). Furthermore, among the open-access books published by the association in 2018, we would like to highlight the “Catalogue of GPR test sites:” this book includes descriptions of test sites and laboratories where GPR equipment, methodology and procedures can be tested; it also encompasses recommendations for the design of new test sites.