

A novel rapid approach to crime scene investigations proposed in the framework of the H2020 RISEN project

6. Scene of Crime

6.2 Capturing the crime scene

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Nowadays, the development and testing of novel technologies is becoming of primary importance for a rapid and accurate crime scene search and first assessment operated by forensic science specialists. EU is supporting this type of research within the H2020 funding program. The RISEN (Real-time on-site forenSic tracE qualificatioN, ID:883116) EU project is developing a set of rapid, contactless sensors and an augmented crime scene investigation on-field system for the optimization of trace detection, classification and interpretation, able to create an interactive 3D model of the crime scene with the position and labeling of traces and the relative results of the on-site analysis. The sensitive nature of data produced in the field of forensics dictates that RISEN's approach and developments are in compliance with the ethical and legal EU directives.

In the present communication, the main objectives of the RISEN project will be outlined together with some preliminary experimental activities performed during the first 2 years of the project. In particular, the Research and Development Department of the Raggruppamento Carabinieri Investigazioni Scientifiche studied the application of hyperspectral imaging photogrammetry in a simulated environment for the digitalization of forensic traces. This approach showed to be successful with selected traces and materials at the crime scene and it can be considered a proof of concept in extracting 3d object with

specific optical properties opening to the possibility to use in reality capture application. The results obtained during our experimental work will also allow to discuss the possibility to use of the results obtained in court.