

New technologies in forensic sciences

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The New Technologies in Forensic Sciences presentation is designed to provide to educating law enforcement, medical examiners/coroners, and forensic investigators with general knowledge of the scope and application of the new Information and Communication Technologies (ICT) within different forensic scenarios. Topics under discussion at the event will be the role of modern technology and how it can be used to improve quality assurance in mass casualty situations, documentation of cases of torture, recognition and documentation of gender violence or other type of violence, traffic accident investigation and documentation, among others.

The main goal is to educate and inform about principles, opportunities and advantages for supporting common, cooperative forensic experts activities on the basis of the new capabilities offered by ICT. In particular, real-time communication and coordination for data collection and sharing can be supported by a new mobile, context-aware software system. All of these tasks can be carried out while preserving security and privacy of the information, and independently of specific communication technologies (Blue Tooth, Wi-Fi, etc.). The proposal has been initially developed for the iOS platform (iPhone, iPod Touch and i-Pad).

Presentation of a new universal graphic dental system and the analysis of dental data generated for human dental identification proposes will be also discussed.

Biography

Aurora Valenzuela is Professor of Forensic Medicine and Forensic Odontology in the University of Granada, Spain, since 2000. Dr. Valenzuela has a PhD degree and a B.D.S. For the last decade had shown an intense professional activity in DVI incidents. In total, five mass disasters (aircraft accidents, train accident, bus accident.) had given her an important expertise in this field as well as the opportunity for international publication of the results in scientific journals. In the last few years she has been very interested in the application of new technologies to Forensics. She has published over 60 papers, abstracts and book chapters. Dr. Valenzuela serves on the editorial reviewer board of several major Forensic Sciences journals, including, Forensic Sciences International and International Journal of Legal Medicine.

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