

FUTURE TRENDS AND NEW PERSPECTIVES IN EMERGENCY MAPPING

Piero Boccardo
Politecnico di Torino/ITHACA
piero.boccardo@polito.it
Italy

In recent years, growing attention is paid to remote sensing (both when satellite and aerial platforms are concerned) when used for emergency management applications. This is essentially due to the large variety of remotely acquired imagery available (with different geometric and spectral resolutions) for the extraction of geometric and thematic features in order to map, delineate and grade natural, manmade and humanitarian emergency impacts. Another key point is the quick availability of those images in rapid mapping procedures in order to deliver the data (reference and thematic) to concerned users.

Taking into account the current state-of-the-art of remote sensing techniques usage in emergency mapping, actual and future trends, from the technological point of view, are taken into account, describing, in the meantime, current methodologies, constraints, possible bottlenecks and processing chains for the added value information extraction.

Particular attention is also paid to existing response mechanisms, describing procedures and results, and eventually commenting major examples of early warning and rapid mapping products.

Conclusions will approach emerging main topics and producing issues, trying to encompass future technological trends (both in term of sensors and algorithms) and their potentialities in the value chain process.