
Sensoriamento Remoto em Arqueologia: Sensores Multifontes e Multiníveis para a Proteção e Gestão do Patrimônio Cultural
Remote Sensing in Archaeology: Multisource and Multilevel Sensors for the Cultural Heritage Protection and Management

Coordenadores: Dra. Cláudia Almeida (INPE) e Dr. Marcos Benedito Schimalski (UDESC)

Sala: Marte – 15 de abril – Segunda-feira – 8h30 às 10h40

ABSTRACT: In contrast to technologies traditionally employed in archaeological research, remote sensing has widened and optimized the scope and scale of action of archaeology in an unprecedented way. Orbital SAR images of high spatial resolution and longer wavelengths have been used to detect underground historical sites, while orbital passive sensors of very high spatial resolution have provide spatially and spectrally rich details on above-ground archaeological landscapes. On the other hand, hyperspectral imagery achieves underground relics exploration successfully in no ground remnants conditions by detecting and identifying weak spectral anomalies. Field spectroscopy and geophysical prospection have as well aided in-situ non-invasive archaeological actions. SAR or LiDAR-derived surface models associated with optical images allow investigations related to crop marks and geoglyphs. Close range photogrammetry and terrestrial laser scanning, by means of fixed or mobile devices, not only promote the tridimensional mapping of historical buildings, but also enable the reconstruction of interior spaces and walls stratigraphy, with promising applications in virtual reality within the major domain of cyber-archeology. In this context, this workshop is committed to introduce latest generation tools designed to support archaeological activities targeted to the protection and management of cultural heritages by means of orbital, airborne, UAV-borne and terrestrial remote sensing.

Títulos	Palestrantes	Período
Opening	Dra. Cláudia Almeida (INPE)	8:30
Remote Sensing Applicability for the Prospection and Conservation of Heritage Assets in Southwestern Amazon	Dr. Carlos Zimpel (UFRO)	8:35
Data Fusion of LiDAR and Photogrammetric Point Clouds for the 3D Reconstruction of Historical Buildings	Dr. Marcos Schimalski & Veraldo Liesenberg (UDESC)	8:50
Digital Photogrammetry for the Precise Assessment of Historical Documentation	Dr. Antonio Tommaselli (UNESP - Presidente Prudente)	9:10
Archaeology in the Age of Sensing	Dr. Stefano Campana (Siena University, Italy) & Dr. Maurizio Forte (Duke University, NC, USA)	9:35
Discussion		10:10
Closing		10:40