ACTIVATION OF A PROCEDURE FOR SENIOR RESEARCH FELLOWSHIPS (3 YEARS Assistant Professor) /Tenure-track to permanent Associate Professorship

TITLE OF THE RESEARCH PROJECT
Climate Change and anthropic threats: Multi-hazard/Multi-scale Monitoring through 4D Digital Twin models based on Earth Observation data and Geomatic techniques

DESCRIPTION OF THE RESEARCH ACTIVITY
Climate change and anthropogenic pressures call for the development of research in Geomatics in a multi-disciplinary framework, in the EO data processing (Copernicus, Multi-/Hyper-Spectral, microwave) integrated by ground data surveying with Geomatic techniques and IoT sensors, aimed at monitoring the built environment, infrastructure, heritage, land degradation/regeneration of the territory, for risk management and early warning. The objective is to envision innovative Digital Twin 4D models with integration of all the geospatial data and BIM-GIS-WEBSITE information. The activity requires knowledge of Big Data calibration/validation methods and basic tools for the algorithm implementation (e.g. RGEE, Phyton, HTML5). The activity foresees international projects and collaboration experience with Research Centres and Civil Society: team co-working capacity is required.

DESCRIPTION OF THE TEACHING ACTIVITY
The position requires mandatory teaching activity for a total of 12 ECTS per year. This activity will be developed in BSc/MSc/PhD courses of Architecture, Building Engineering and Civil Engineering. Teaching activity will be also developed in multidisciplinary/integrated courses.

FULL TIME POSITION
Main field of research: engineering
Tenure-track to permanent Associate Professorship: after three years, depending on the performances (evaluation by ABC department) and the achievement of the National Scientific Habilitation (ASN - Abilitazione Scientifica Nazionale), a permanent position as Associate Professor is granted.

Italian Disciplinary Sector SSD (Settore Scientifico Disciplinare): ICAR06 - Topografia e Cartografia (Surveying and Mapping)

NUMBER OF POSITION: 1

MAIN REQUIREMENTS
Required Publications for the submission of the application: 15 SCOPUS/WOS indexed
Language knowledge: ENGLISH (excellent level required)

FOR further information please contact: Prof. Marco Scaioni – marco.scaioni@polimi.it

IMPORTANT INFO ON THE ON COMING PROCEDURE: as soon the application for the position will be published on the POLIMI, MIUR and EURAXES websites, the link to submit the application together with the instructions to participate will be made available also in this ISPRS website.

PREFERRED QUALIFICATIONS
• PhD in Geomatics/Environmental/Civil/Structural/Geo-sensing/Telecommunication/Informatics/Architectural or related Engineering discipline
• Strong background in computer vision, advanced surveying techniques, Remote Sensing, Earth Observation, deep learning, photogrammetry, LiDAR
• Strong publication track record with demonstrated capability in developing algorithms (i.e. Computer Vision, Remote Sensing/Earth Observation, ICT)
• Excellent written and oral communication skills (in English)
• Strong organizational, interpersonal, and project management skills

The research activity will be carried out in the university campus of Milano and Lecco.