



Increase in the laboratory research capacity!

Due to the POSCCE - INOVA OPTIMA Infrastructura Multisite pentru Creșterea Capacității de Cercetare și INOVARE în domeniul OPToelectronicii și InstruMentației Analitice – INOVA-OPTIMA”, project co-financed by the European Fund for Regional Development, the research infrastructure presented and exploited in the WATCH project has increased with three new investigation methods:

UAV - with airborne survey sensors



UAVs allow rapid archaeological prospecting on wide areas, scientific data mapping and relative positioning for ground information with high precision applying optoelectronic techniques. The information is collected by thermal imaging, LIDAR investigations, photogrammetry, digital imaging, that don't

disrupt the activity on the ground and they are not influenced by uneven surfaces, inaccessible or hazardous such as ruins or nearby swamps

X-Ray imaging laboratory

ISOVOLT Mobile 160 is a complex computerized station for radiography which provides non-destructive X-ray inspections in the laboratory and also in the field campaigns even in inaccessible areas. The generator and the X-ray tube can operate at 160 kV, with the maximum



parameters of 1600W and with 10 mA. The emitted energy, current intensity and irradiation time are variable, allowing the investigation of several types of materials. Irradiated digital receptors are scanned in real time to obtain a digital image of radiography. Subsequently, these images are processed to highlight hidden details.

Hyperspectral camera

SWIR 384 hyperspectral Camera has a SWIR (Short Wave Infrared) sensor ie 950 - 2500 nm. The camera can record a series of 384 vertical pixels, each pixel being assigned to them instead the classic RGB cameras to obtain a color spectrum with 288 bandwidths. Each band has a width of about 5 nm.



Project Leadership

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Main events scheduled for 2015

Main events

- National and International access to infrastructure and know-how
- Courses and online demonstrations
- Field campaign at Targu Jiu