

Modern Acquisition Technology of Spatial Data as a Basis of Environmental Engineering and Planning Projects

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Key words: Engineering survey; Laser scanning; Photogrammetry; Remote sensing; Spatial planning; Urban renewal;

SUMMARY

MODERN ACQUISITION TECHNOLOGY OF SPATIAL DATA AS A BASIS OF ENVIRONMENTAL ENGINEERING AND PLANNING PROJECTS Toša Ninkov1*, Vladimir Bulatović2, Zoran Sušić3, Dejan Vasić4 ABSTRACT Abstract text. This work present summary of possibility advanced geodetic technologies for creating 3D digital topography maps for using in spatial and urban planning and for all other spatial related activities. Paper also give detailed review of: 1) Creating orthophoto maps and digital elevation models from high resolution satellite images; 2) Advanced methods for data acquisition using mobile LIDAR system from the air, and Mobile Lidar DynaScan for corridor mapping ; 3) Application of SenseFly eBee UAV system for photogrammetric measurements areas covered by Civil and Environmental Engineering, Regional and Urban Planning projects. All modern acquisition technologies will be presented with their applications on realized projects in Nigeria, Qatar and Serbia. On the basis of this presentation will be to show that they provide multiple savings in time and labor resources in the realization of a 3D digital maps and models as the basis of design in Civil and Environmental Engineering, Regional and urban projects. Key words: orthophoto map, remote sensing, digital elevation model (DEM), digital terrain model (DTM), laser scanning, UAV system