V4SHM - VISEGRAD PROJECT ON AUTONOMOUS SYSTEMS FOR STRUCTURAL HEALTH MONITORING

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Abstract. The goal of the project is the development of methodology for reliable identification of different structural defects, including concrete cracks, spalling and delamination. The basic idea of this project combines machine learning and image processing techniques to localize and quantify stiffness degradation with concrete structures. The overall system is intended to operate in fully autonomous way. it is allowed by recent advancement in image capturing utilizing the unmanned ground or aerial vehicles and artificial intelligence.

The following presentations will be delivered within our thematic session "*V4SHM - Visegrad project on autonomous systems for structural health monitoring*":

1) B. Blachowski and P. Tauzowski (IPPT PAN, PL) - *Characterization of the V4SHM project: main assumptions and expected results*

2) P. Koteš (UNIZA, SK), P. Konečný (VŠB-TUO, CZ), P. Lehner (VŠB-TUO, CZ), M. Zahuranec (UNIZA, SK) - *Long-term measurements of reinforcement corrosion on real bridge structure*

3) Janos Mate Lógó and Árpád Barsi (BME, HU) - *Evolution of road map topology*

4) P. Tauzowski (IPPT PAN), P. Jarosik (IPPT PAN), M. Zarski (IITiS PAN), B. Wojcik (IITiS PAN), M. Ostrowski (IPPT PAN), B. Blachowski (IPPT PAN), L. Jankowski (IPPT PAN, PL) - *Computer vision-based inspections of civil infrastructure*

5) M. Ostrowski and B. Blachowski (IPPT PAN, PL), M. Zarski and B. Wojcik (IITiS PAN, PL), P. Tauzowski and L.Jankowski (IPPT PAN, PL) - *Computer vision-based vibration measurement*

6) Patrik Kotula (UNIZA, SK) - *Poster presentation devoted to arch bridges*

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