

# Terrestrial Laser Scanning for Dam Deformation Monitoring – Case Study

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**Key words:** Deformation measurement; Laser scanning;

## SUMMARY

The possibility of applying a terrestrial laser scanning for dam deformation monitoring is discussed. The object of study "Studena" dam is reviewed as follows-existing geodetic control points, condition and suitability for the research. Project for field activities is made to choose the most suitable places for the scan stations to obtain maximum quality according to specificity of the instrument (angle of shooting, range, angle of incidence and reflection of the beam). The dam is scanned twice by two different instruments. A digital model of the surface of the dam is created. The optimal density of scanning is analyzed. Conclusions on the planning and execution of laser scanning measurements for dam deformation monitoring are made.