Development of Three-dimensional Measurement System for Earth Retaining Wall for Excavating Work

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Monitoring of deformation of earth retaining wall for excavating work is important in order to protect sur rounding environment and to ensure the safety of structures during construction. However, it is difficult to evalu ate the overall behavior only by the partial measurement, but the multipoint measurement tends to be expensive. In this paper, we introduced a system developed by us for evaluating and visualizing retaining wall as three di mensional curved surface. In order to confirm the effectiveness of the proposed system for actual monitoring, we tried to apply the system to the on site measurement. Furthermore, we proposed a method to conduct monitoring of retaining walls by combining this system and simple inclinometers.