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Book of abstracts

THE 18TH COLLOQUIUM
"NEW TRENDS IN
CONSTRUCTION
MANAGEMENT"

THE 8TH MEETING OF EURO
WORKING GROUP
OPERATIONAL RESEARCH
IN SUSTAINABLE
DEVELOPMENT
AND CIVIL
ENGINEERING

CRACOW, POLAND

EURO

THE ASSOCIATION OF
EUROPEAN OPERATIONAL
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CIVIL ENGINEERING



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SUSTAINABLE DEVELOPMENT AND CIVIL
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EVALUATION AND CLASSIFICATION OF DEFECTS IN RESIDENTIAL BUILDINGS IN LITHUANIA

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Abstract: Building defects are inseparable from the overall state of a building. The advancing construction technologies facilitate the detection of defects that can degrade the aesthetic appearance of the building and even pose a threat to the lives of residents and people in their proximity. On top of these issues, building defects are loss-making to contractors due to time and financial costs. Based on national legal regulations, legal liability applies to the contractor, designer, building design expert, or construction technical supervisor for the collapse or defects that occur in the period of five years; however, the period is extended to ten years for hidden elements (structural members, pipelines, etc.) and twenty years for intentionally hidden defects [1]. Once a defect emerges, its origin and the level of threat must be determined. At present, in Lithuania, the focus is only on features of buildings in need of urgent repairs [2]. Often, the origin of a defect gives rise to disputes between stakeholders. Usually, the resolution of such issues is complex. A methodology for determining the origin of a defect and the posed level of threat would facilitate problem-solving among stakeholders. The analysis was based on scientific literature, statistical data, defects of Lithuanian residential buildings, and the experience of other countries in this field. The article presents a classification/methodology of defects in residential buildings that would have a preventive effect. The presented practical case comprises defects in the foundation of a building, their causes, evaluation, and cost calculation.

Keywords: *Buildings, Defects, Classification*