



Czech Technical University in Prague
Faculty of Civil Engineering

Terrestrial Laser Scanning for the Fire Test on Experimental Building in Mokrsko

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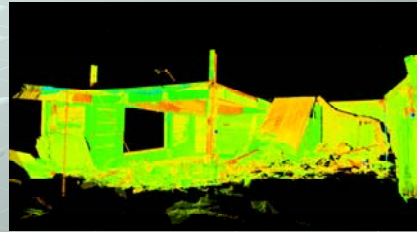
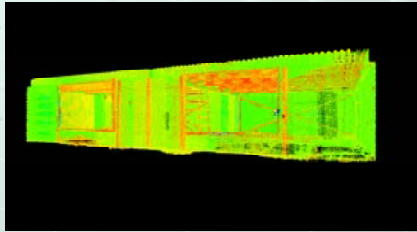
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Basic information

- Fire test of experimental building with new construction elements
- International cooperation
- Surveying
 - Laser scanning with Leica HDS 3000
 - Measurement before the fire test
 - Measurement after the fire test
 - Deformations of construction after the fire test

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Final point clouds before and after fire test



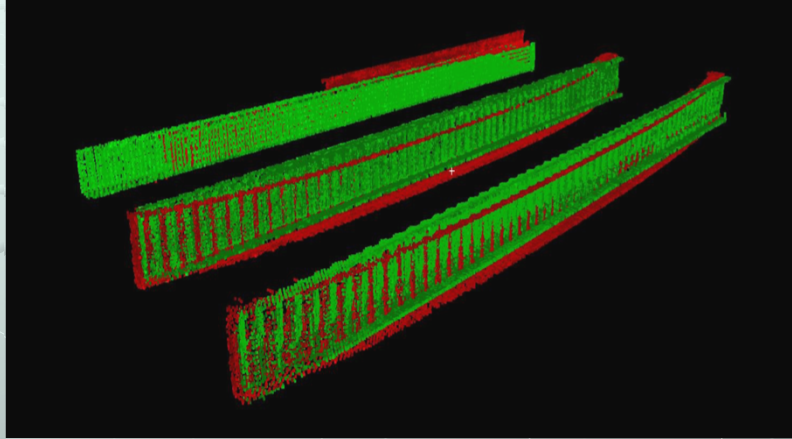
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Data evaluation

- Collapse of the building during the fire test
- Evaluation not collapsed elements of construction:
 - Three ceiling beams
 - Central column
 - Wall constructions
 - Monolithic concrete wall
 - Kingspan sandwich panels

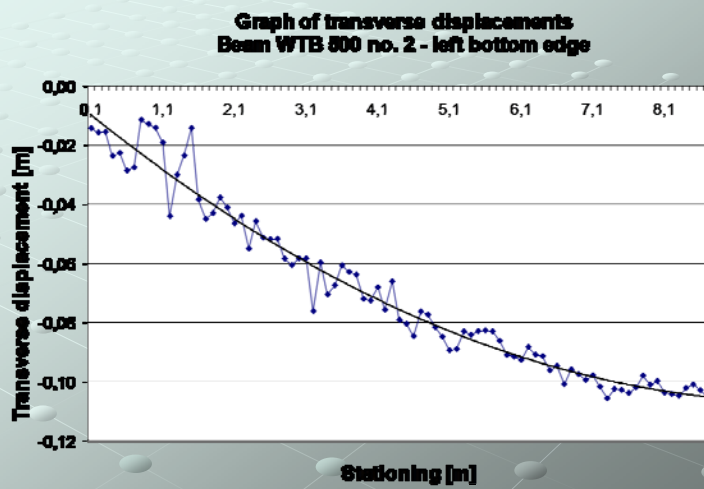
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Evaluation of beams



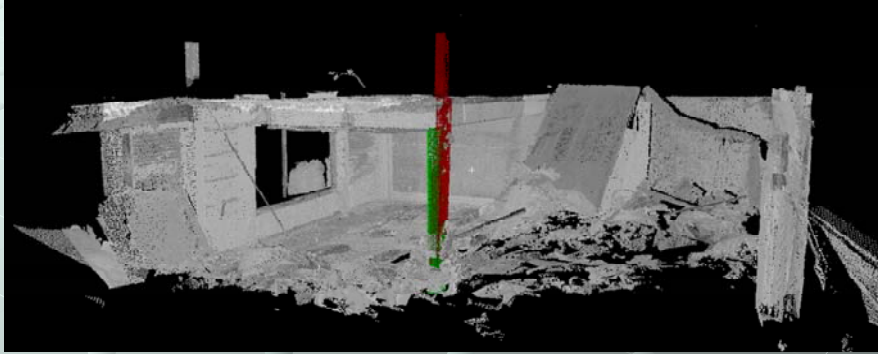
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Evaluation of beams - graph



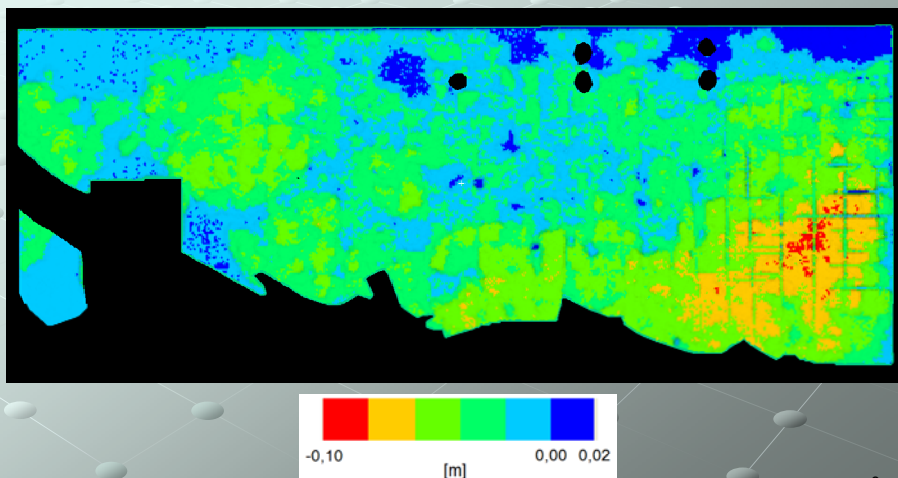
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Evaluation of central column



7

Evaluation of concrete wall – difference model



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Conclusion

- Evaluation of static deformation of the experimental building after the fire test
- Difference models of walls with hypsometric expression of deformation provide unique information about behavior of the building construction

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Thank you

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