

Distributed strain, settlement and temperature sensing in geotechnical earth embankments

Łukasz Bednarski / AGH University of Science and Technology in Kraków

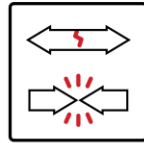
Tomasz Howiacki / Cracow University of Technology

Rafał Sieńko / Cracow University of Technology

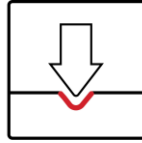
Katarzyna Zuziak / SHM System | Nerve-Sensors



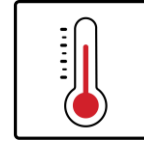
Distributed Fibre Optic Sensing (DFOS)



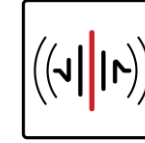
DSS
strain, crack



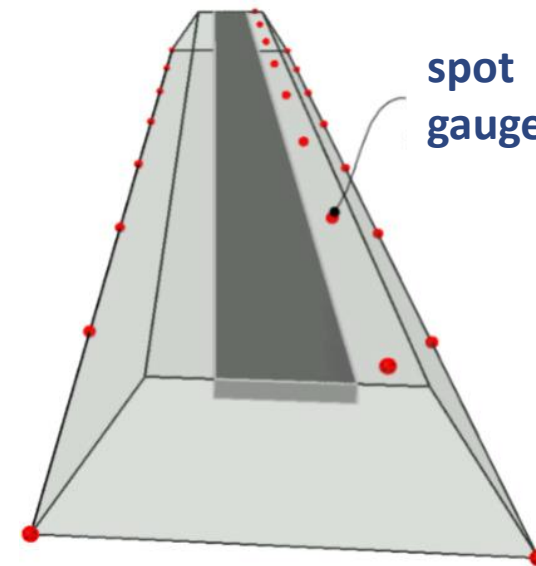
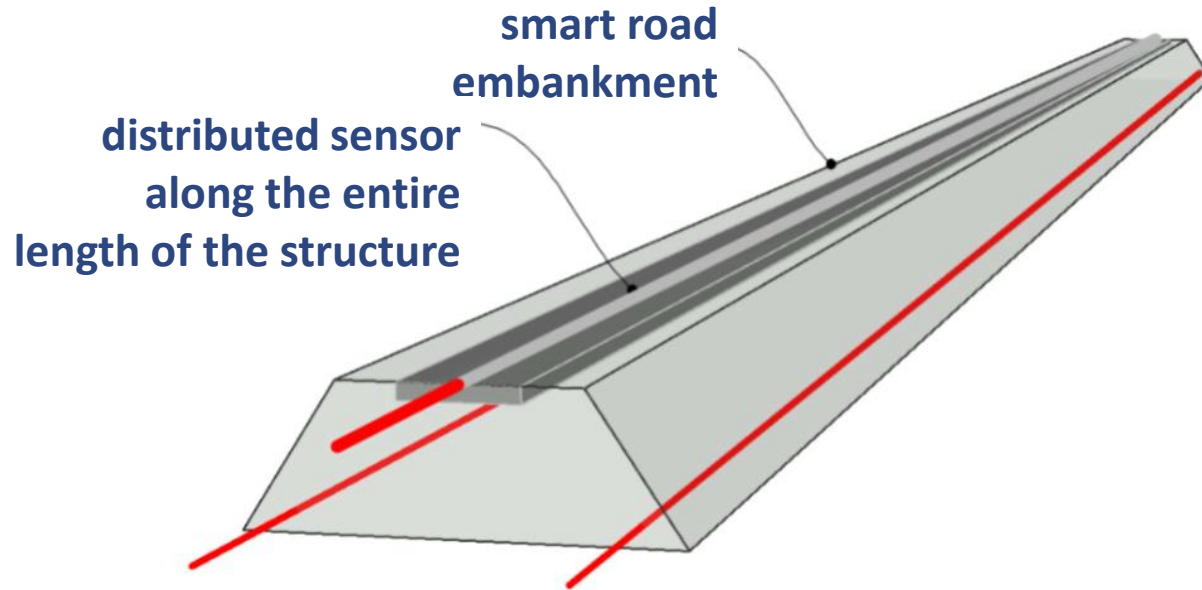
DDS
displacement



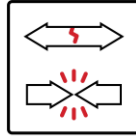
DTS
temperature



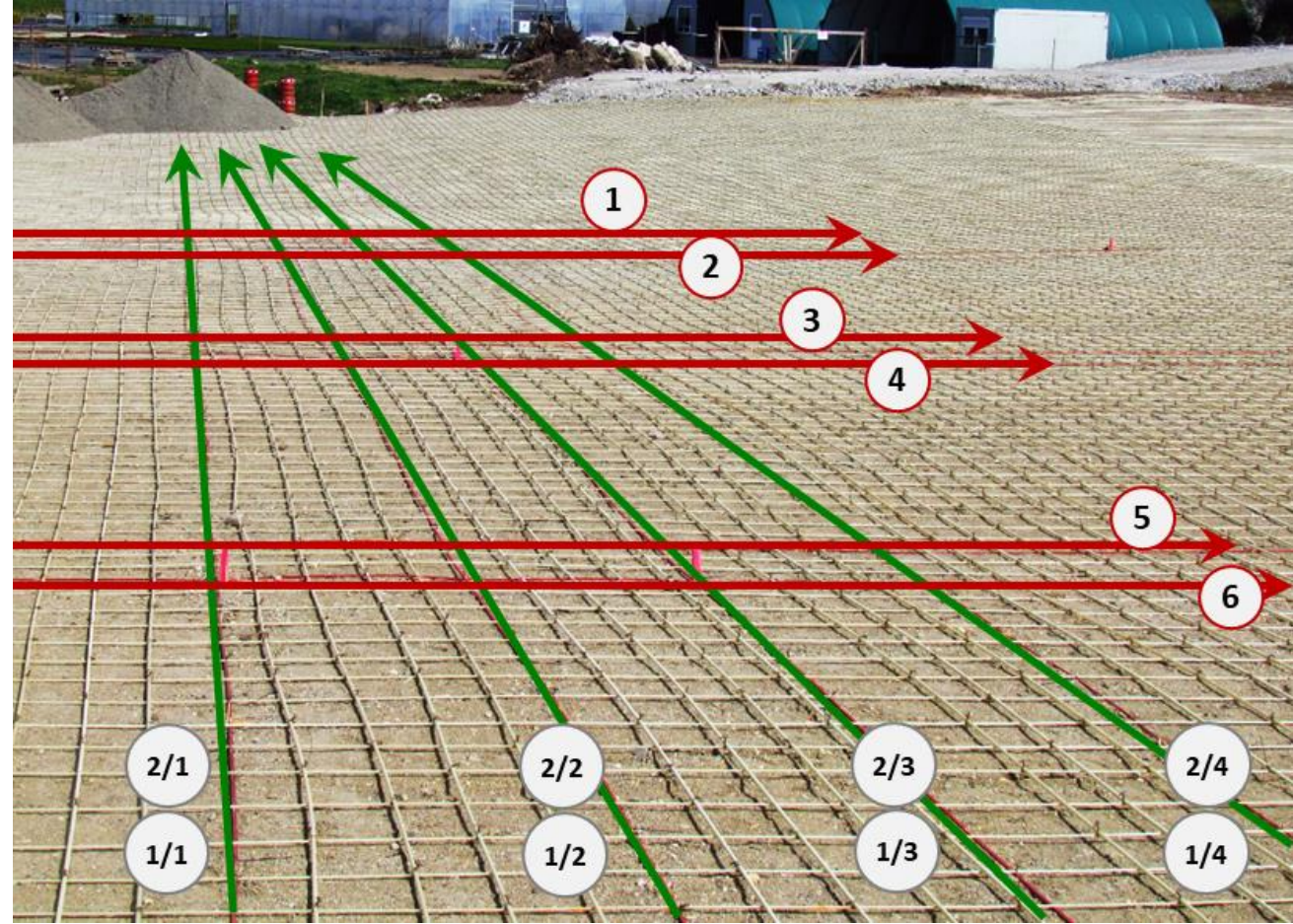
DAS
acoustic

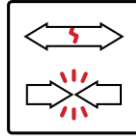




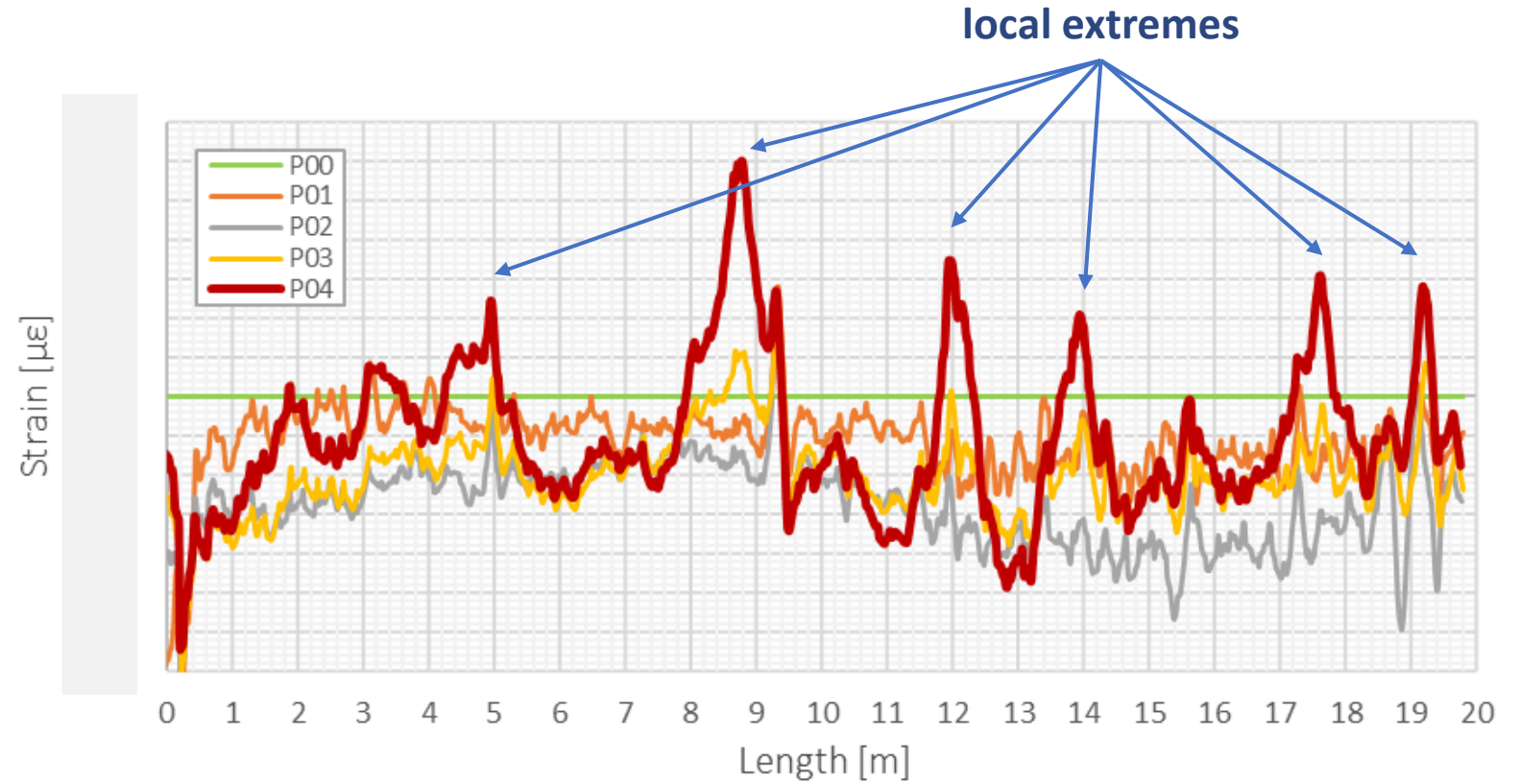


Distributed Strain Sensing (DSS)



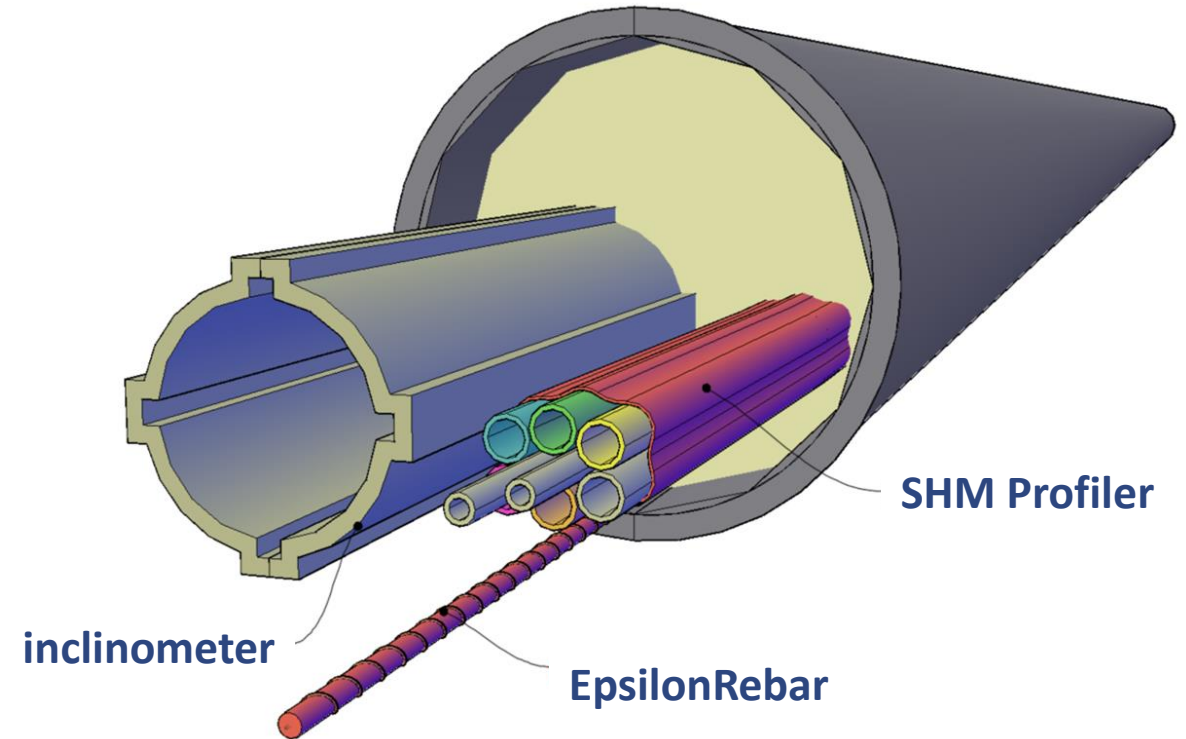


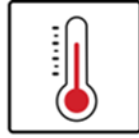
Distributed Strain Sensing (DSS)



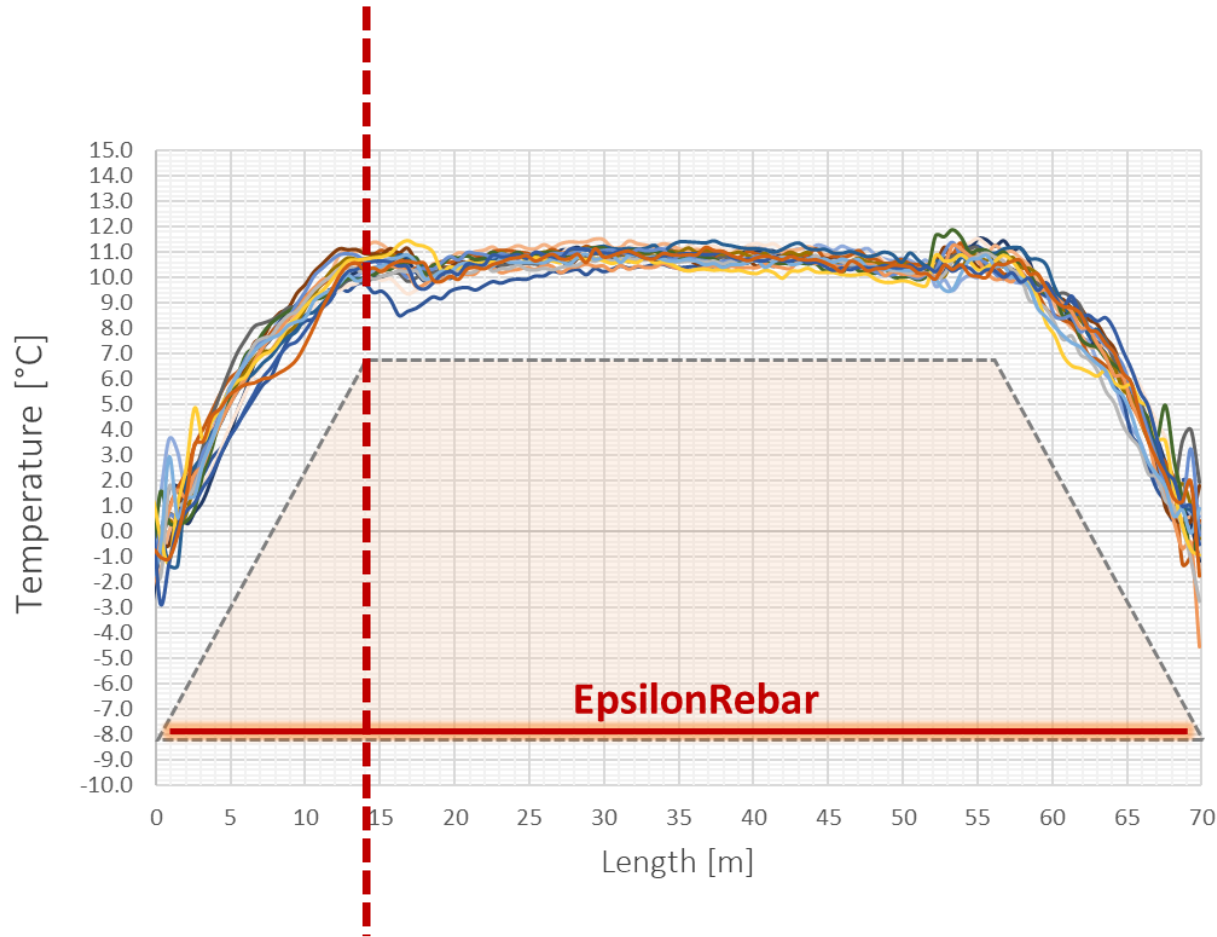


Distributed Temperature Sensing (DTS)

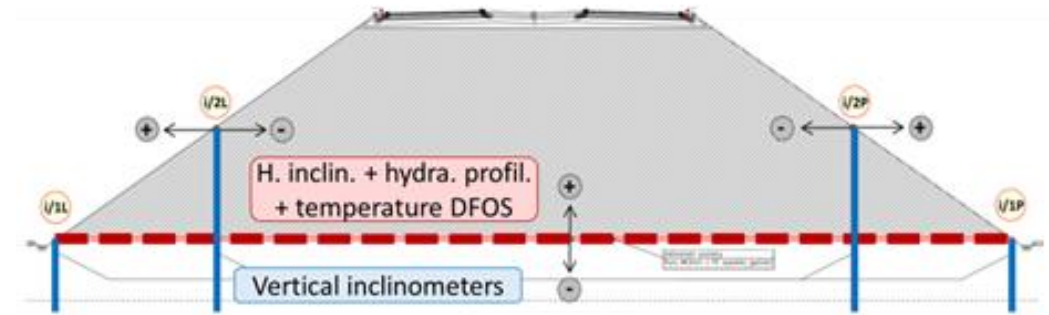
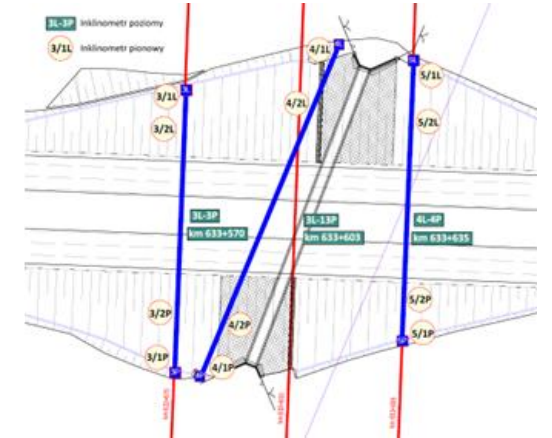




Distributed Temperature Sensing (DTS)



- 1
- 2
- 3
- 4
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- 19
- 20

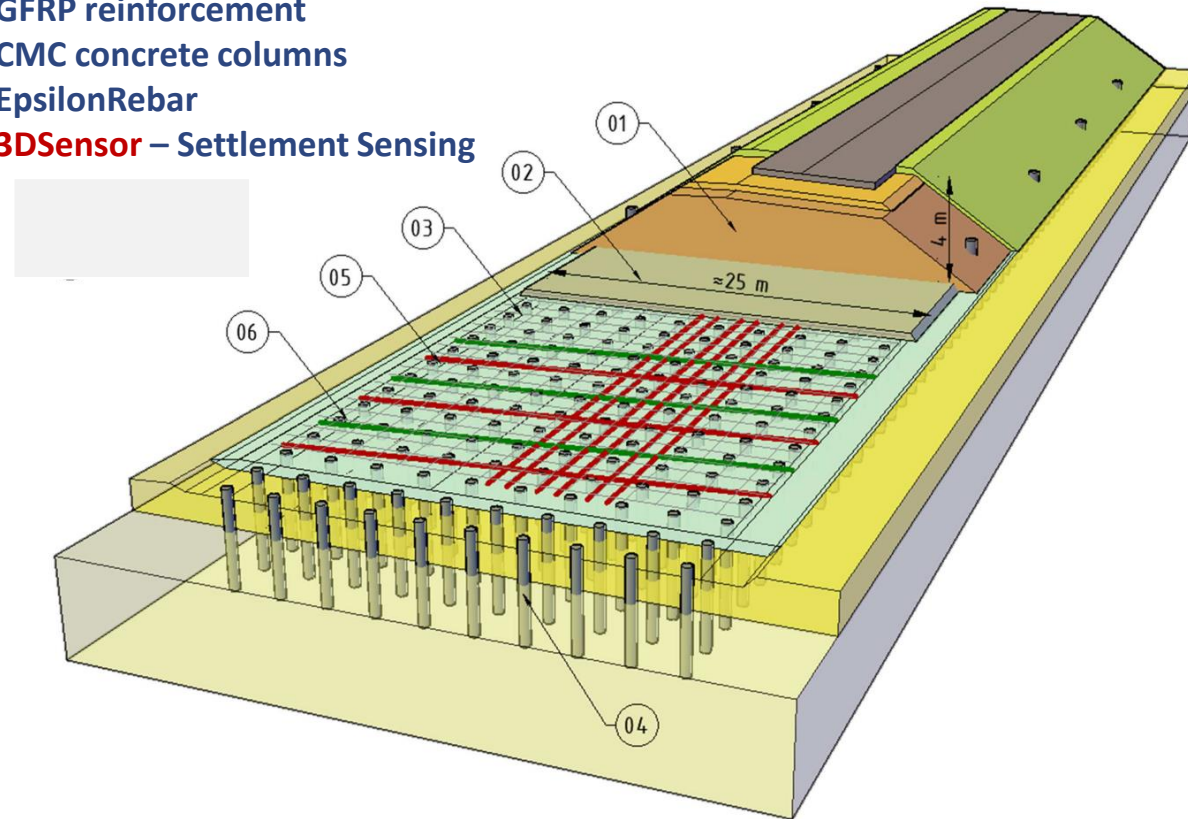




Distributed Displacement Sensing (DDS)

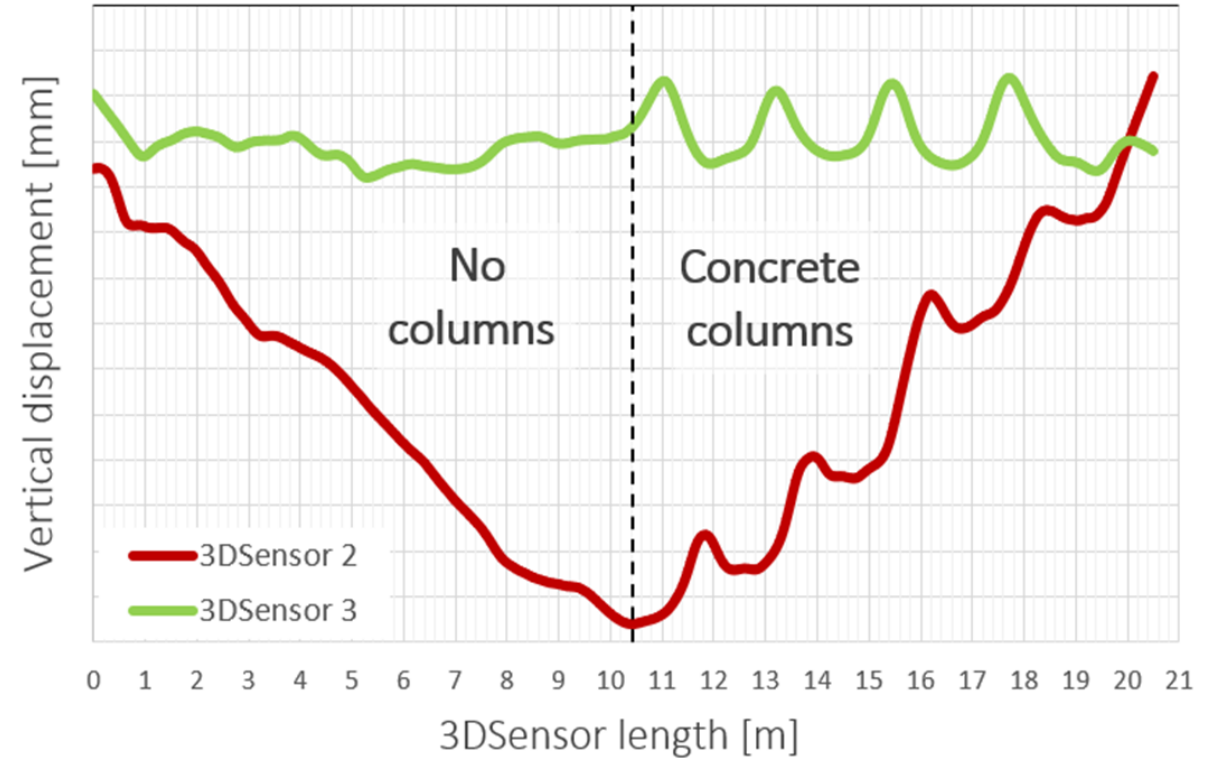
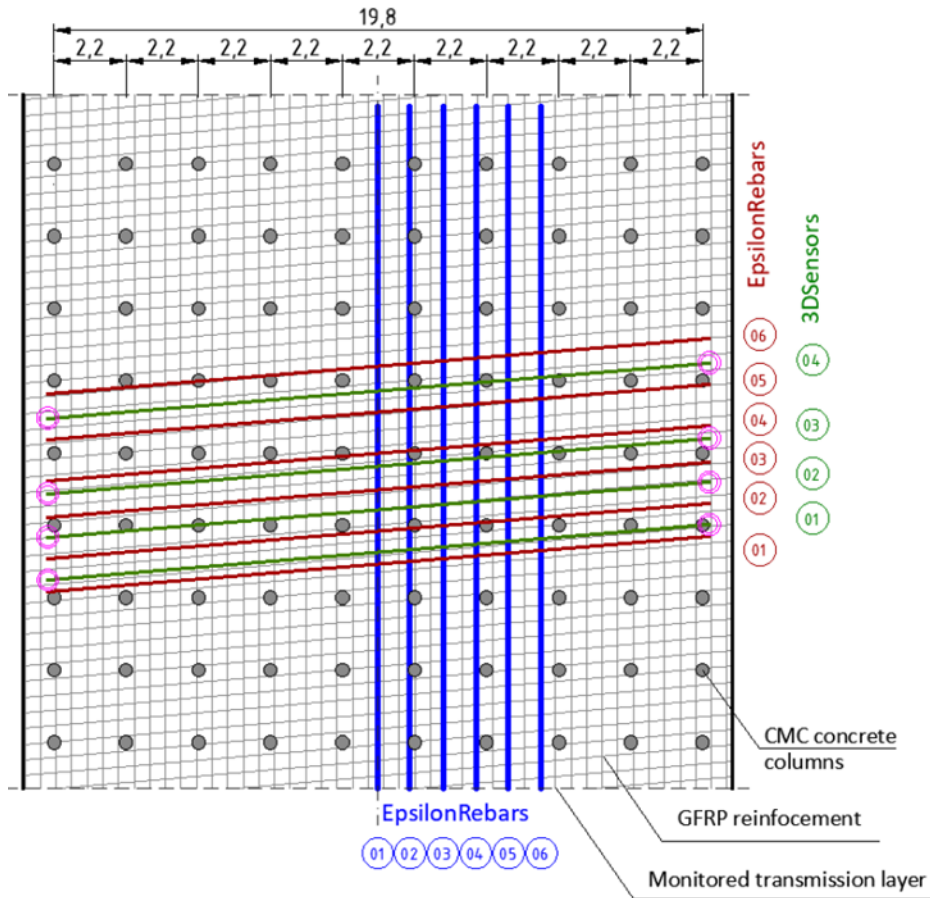


1. Road embankment
2. Monitored transmission layer
3. GFRP reinforcement
4. CMC concrete columns
5. EpsilonRebar
6. **3DSensor** – Settlement Sensing





Distributed Displacement Sensing (DDS)



Laboratory

