



# MASTER THESIS TOPICS



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## Topic 1

A comparison of the performance of different types of embedded piezoelectric transducers for ultrasonic testing and monitoring of concrete



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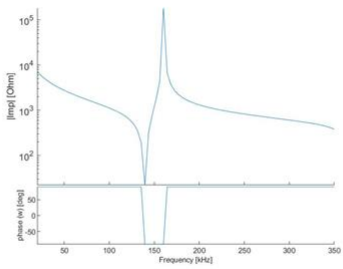
2

## Topic 2

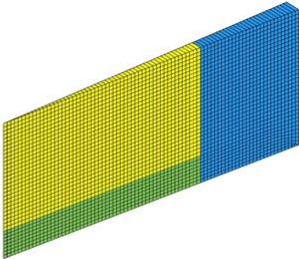
Design optimization of embedded piezoelectric transducers for ultrasonic monitoring of concrete infrastructure using dynamic coupled finite element models



Embedded piezoelectric transducer



Dynamic response



Finite element model

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## Topic 3

Real-time automated monitoring of concrete repairs in tunnels in Brussels using embedded ultrasonic transducers



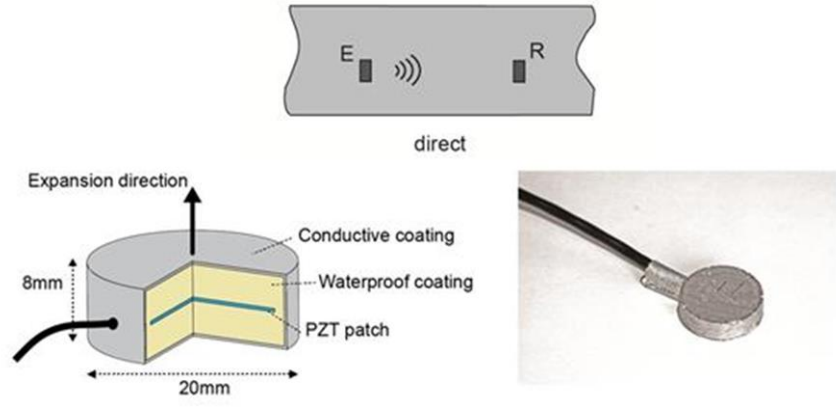
Installation of automated monitoring system in the Rogier tunnel in Brussels

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# Topic 4

Measurement of shear wave velocity in concrete using embedded piezoelectric transducers



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## Exercise

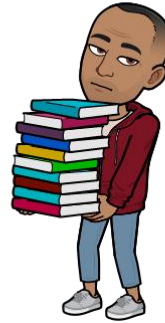
An illustration of a magnifying glass with a cartoon character holding it, symbolizing an exercise or task.

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## Literature search

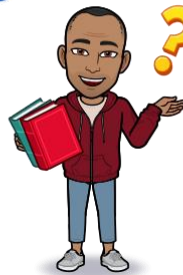
- Form 4 groups, each working on 1 of the topics
- Find 3-4 articles relevant to the topic
- Extract the information which is most relevant for your topic



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*Any Questions?*



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