


# EXTRACTING INFORMATION FROM PAPERS




Arnaud Deraemaeker  
Arnaud.Deraemaeker@ulb.ac.be



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## Problem statement



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## Context and instructions

Imagine that your research topic is “*Damage detection in concrete structures under changing operational and environmental conditions*”.



Read the paper assigned to you and do your best to answer the following questions:

- 1) Identify the **structure of the paper** and extract the **type of information** that is detailed

What is the structure of the paper? What kind of information is presented? Do the authors use models and if so which types? What are the main hypotheses? Do the authors perform experiments to check their models? What are their main findings/conclusions ?

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## Context and instructions

- 2) Extract the **information that is meaningful** for your research project

Does the state-of-the-art refer to papers which might be of interest for a further reading? Can the methods presented in the paper be used in your project?

- 3) **What more do you need** to solve your problem?

What type of additional methods would you need? How could you find additional references?



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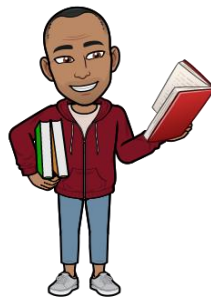
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## Practical organisation

Homework is due **March 3, 2022, before 18h** (send by email)

Paper assigned to you is available on website

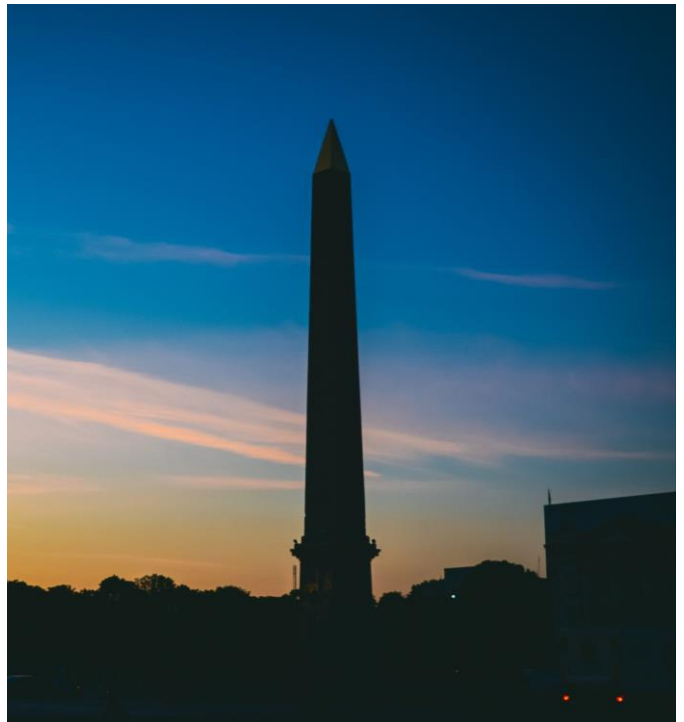
<https://arnoresearch.com/research-methods-in-civil-engineering-2021-2022/>



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## Example



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## Context and instructions

Example from previous year : Imagine that your research topic is “*Optimum design of pendulum tuned mass dampers for applications to high-rise buildings subjected to wind-induced vibrations*”.

Read the paper assigned to you :

S. M. Avila, M.V.G. de Moraes, M. Barcelos, M.A.M Shzu and R. de C. Silva, “Vibration control of the set tower and wind turbine under the wind influence”, Proceedings of COBEM 2009, Gramado, Brasil, Nov 2009.

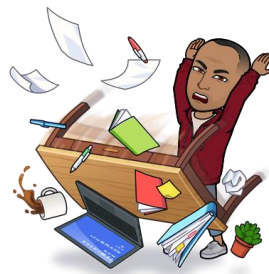
And answer the following questions :

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## Some advices

- It's perfectly normal that you don't understand some of the maths or concepts presented in the paper
  - Focus on the **understanding of physical phenomena** and main conclusions
  - For the master thesis, further reading might be necessary
- Not everything in the paper is relevant for your research topic, so **focus** !



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