Time Plan  
First semester: Literature Review/ State of the Art as publishable material  
40-150 papers  
Extracted from database searches that show 400-1500 results  
Review the texts

When reviewing a text

Order:

- Title  
- Abstract  
- Introducion (look for motivations, relation to other work, and a more detailed overview)  
- Structure  
- Read previous/related work section (how does this work relate? What is new or different about this work?)  
- Read the conclusions  
- Read the body of the paper

Fill out the following questions for each text that is part of your literature study  
  
- **Title**  
  
- **Name(s) of author(s)**  
  
- **Motivation** for doing the research (Claimed relevance or benefits)  
  
- **The research problem/objective** (what is the argument of the paper)  
Is this original (what is new in the paper? New question asked? New understanding of the research problem? A new methodology for solving problems? A new algorithm? A new breed of software tools or systems? A new experimental method? A new proof technique? A new formalism or notation? A new evidence to substantiate or disprove a previously published claim? A new research area? In short, what is original about this paper?)  
  
- **Chosen research approach / methodology**   
What have they done to investigate / find a solution to the research problem? What is the methodology adopted to substantiate the claims? What are the major theorems? What experiments are conducted? Data analyses? Simulations? Benchmarks? User studies? Case studies? Examples? In short, what makes the claims scientific (as opposed to being mere opinions)?  
  
- **Reported results / products / effects**  
  
- **Contributions / Conclusions**  
What do they claim to have achieved? Summaries their contributions in a clear and concise fashion  
  
- **Your evaluation of the reported results with respect to the research objective**   
1. Are the results significant? Is the work scratching minor itches? Are the authors solving artificial problems (aka strawman)? Does the work enable practical applications, deepen understanding, or explore new design space?  
2. Are the contributions significant? Are the authors simply repeating the state of the art? Are there real surprises? Are the authors aware of the relation of their work to existing literature? Is the paper addressing a well-known open problem?  
3. Are the claims valid? Have the authors been cutting corners (intentionally or unintentionally)? Has the right theorem been proven? Errors in proofs? Problematic experimental setup? Confounding factors? Unrealistic, artificial benchmarks? Comparing apples and oranges? Methodological misunderstanding? Do the numbers add up? Are the generalizations valid? Are the claims modest enough? That is does the paper contain evidence for the claims?  
  
- **Your conclusion on the relevance of this research with respect to the field in general.**What have we learned from the paper? Is this a key paper? Do the reported results contribute significantly to state of the art? Shall the standard practice of the field be changed as a result of the new findings? Is the result generalizable? Can the result be applied to other areas of the field? What are the open problems? In short, what are the lessons one can learn from the paper?

**- Your conclusion on the relevance of this research with respect to your own research.**  
How does this work related to yours? Are there common elements? Are they addressing the same research problem? Can you use their results to solve your problem, or part of it? Can you improve on their approach? Do their ideas have other applications or extensions that the authors might not have thought of?

When reading a text:  
read critically  
read creatively (do the good ideas have other application or extensions? Can they be generalized further? What would the next step be?)  
Make notes as you read the paper  
Try to summarize the paper in one or two sentences.  
Compare the paper to other works

Note what the ‘key-papers’ are  
  
Create taxonomy of the papers  
-note specific attributes/features  
- choose 2-7 most prominent attributes  
- specify levels/values for each chosen attribute  
-structure your description of the area and the papers you found  
  
Create mapping diagram to give a visual overview of the chosen area  
  
Have a detailed discussion of the different sub-areas you have identified

Software for writing + referencing  
Latex + Bibtex

Put all files and documents in a version control system like GIT

Interessante literatuur

<https://www.uitgeverijblauwdruk.nl/boeken/internationaal/transforming-with-water/>

Topics

Vadose Zone  
Global Warming  
Water availability  
Infiltration/filtration  
Artistic contribution  
Land Art

Global Sea Level – Greg Niemeyer  
http://polartide.org/  
Venice Biennale 2013