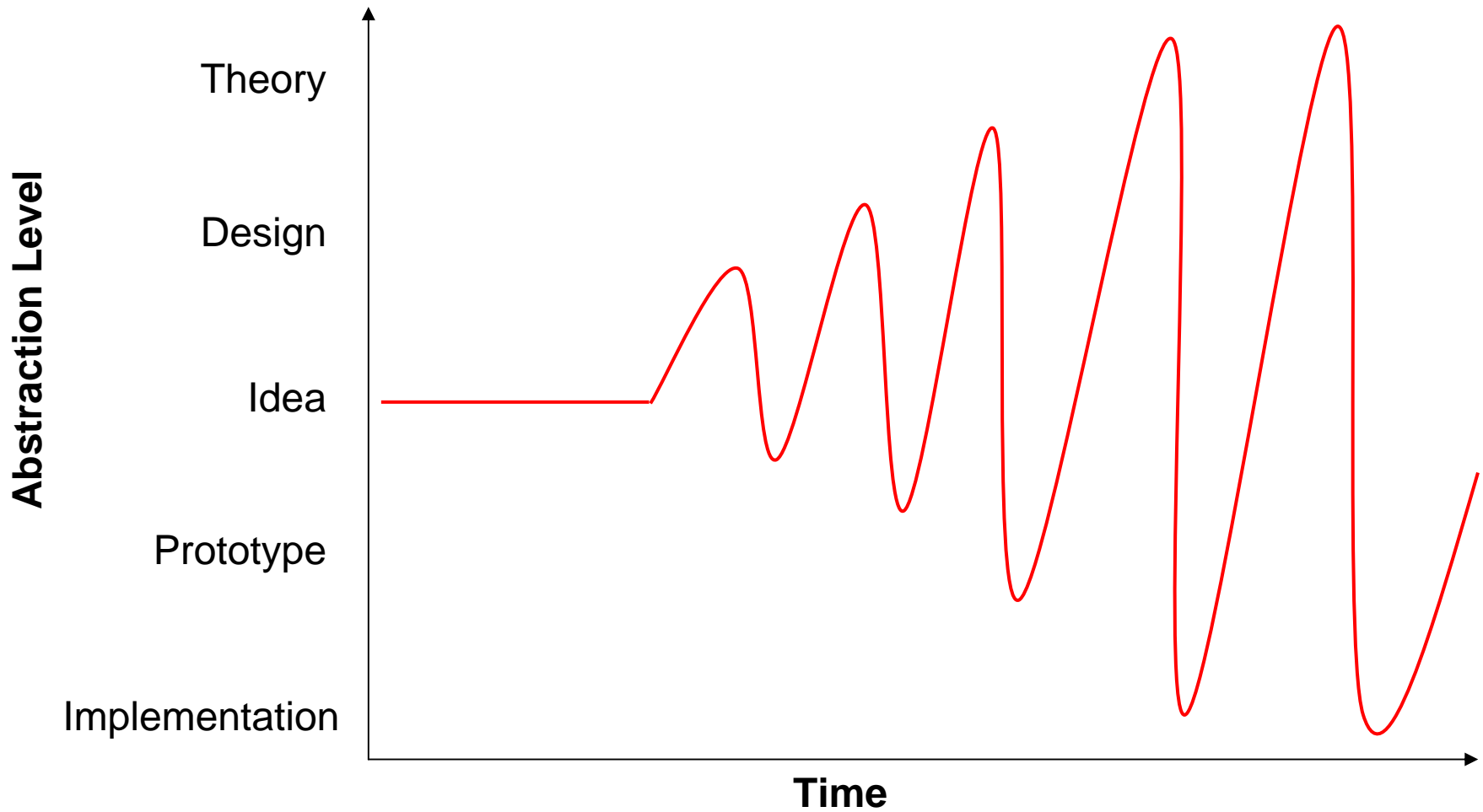

Research Method and Attitude

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Research Curve (IDPTI)



Research Method (IDPTI)

- You search for an **I**DEA
 - You create a **D**ESIGN
 - You create a **P**ROTOTYPE
 - You develop a **T**HEORY
 - You develop an **I**MPLEMENTATION
-

You search for an IDEA

- **IDEA** = a solution to some **problem**
 - Examples
 - How to **reduce power**?
 - A novel **scheduling/placement technique** that can reduce power consumption
 - How to **accelerate coverage estimation**?
 - An **acceleration technique** that can speedup an existing coverage estimation method
 - How to ...?
 - A ... technique that can ... (do something **GREAT!**)
-

You create a DESIGN

- DESIGN = an algorithm, a methodology, a hardware or software system design, ...
 - Examples
 - A scheduling/placement algorithm that can reduce power consumption
 - A partial model checking method that can speedup coverage estimation
 - A ... system that can ...
-

You create a PROTOTYPE

- **PROTOTYPE** = a rapid, **rough implementation** of your design
 - **Examples**
 - A **prototype program** for low-power scheduling that can be applied to illustration examples
 - A **prototype program** (system) for accelerating coverage estimation that can be applied to illustration examples
-

You develop a THEORY

- **THEORY** = An analysis of the **net benefit** of your proposed solution
 - Examples
 - How much **power consumption** can be reduced at the price of what kinds of **overheads**?
 - How much **speedup** can be achieved at the price of what kinds of **overheads**?
-

You develop an IMPLEMENTATION

- **IMPLEMENTATION** = a working instance of your solution, namely a **program**, a **system**,...
 - Examples
 - A **low-power scheduler/placer**
 - A **fast coverage estimator**
-

Research Attitude

- 積極
- 自動自發
- 負責
- 創新
- 深入淺出
- 具理想、有目標
- 隨時自我充實、自我學習
- 做好時間管理（忙碌的人時間最多 —— 聖嚴法師）

Research Attitude

Autograph your work
with **quality**

件件工作 反映自我

凡經我手 必為佳作

Conclusion

道理大家都懂，
我們做到多少？
