Abstract

This document contains the statements belonging to the PhD thesis CAFCR: A Multi-view Method for Embedded Systems Architecting; Balancing Genericity and Specificity.
1. Methods for efficient CPU use

The importance of methods for efficient use
of CPU and memory
is underestimated by most software engineers.

For visions such as
ambient intelligence and smart surroundings
these methods are indispensable.
2. The importance of content

A big emphasis on process and methods of system design happens at the expense of the content side of system design. Process and method are only means that cannot result in good products without application domain know-how and know-how of the applied technologies.
In practice UML is a counterproductive means for software and system design.
Generalizations are often an obstruction for finding new solutions.
5. An architect must first learn an engineering discipline

It is for the functioning of a system architect essential to have sufficient depth in a engineering discipline and to actively maintain this discipline.
6. From *product as box* to a *network of systems*

In the medical market a lot of user flexibility can be gained by making a paradigm shift from *product as box* to a *network of systems*.

The clinical practice becomes the focus point, instead of technology, while in the longer term a shift will be made to patient-centered.
7. Designers need empathic skills

To make human-oriented systems, software and system designers need empathic skills, to enter into the user’s emotions, feelings, culture, and experience.
The measurement of the research results by counting the number of publications forces scientists to become more specialized. Integrating research is therefore less attractive, because it is more difficult to substantiate and to publish.
9. Nature is a good source of inspiration

Nature is a good source of inspiration to make more robust systems.

Systems that are designed by humans are, due to the pursuit of unification and standardization, more vulnerable than natural systems with a large diversity.
10. The Dutch youth welfare has problems

The youth welfare in the Netherlands can not cope with the large group of children from people without prospects and drug addicts. This is ticking time-bomb threatening the Dutch society. The causes are: over-specialism, too many reorganizations, spending cuts en the pursuit of naïve ideals.