

## **In Memoriam Marc Voorhoeve: 5 april 1950 - 7 oktober 2011**

Marc Voorhoeve was member of the Information Systems Group of the department of Computer Science of the Eindhoven University of Technology since 1985. In 2010 Marc was seized with cancer and he bravely started a fight he could not win. He tried to live his normal live, including his work, as long as possible, which proves that he was happy with the live he lived. Marc loved to do research and to teach.

Marc was extremely intelligent. He studied mathematics at the University of Leiden and finished his PhD at the age of 27 after three years of research. His PhD was about the Zero's of exponential polynomials. The thesis covered only 72 pages! One of the main results was a generalization of the well-known theorem of Rolle, now called the Voorhoeve Index. On Wikipedia you learn more about it (see: [http://en.wikipedia.org/wiki/Voorhoeve\\_index](http://en.wikipedia.org/wiki/Voorhoeve_index)).

After his PhD Marc was researcher at the famous Center of Mathematics and Computer Science (CWI) in Amsterdam from 1977 till 1980 and then worked for Philips Data Systems, the computer division of Philips. In 1985 he came back to science and joined the Information Systems Group that was started only one year before.

Marc has made great contributions to the development of the group. In 80<sup>th</sup> formal methods were addressing either data aspects or process flow aspects, but not complete information systems. Our group developed ExSpect, a specification formalism and a software tool, which became available in 1989, the same year when the independently developed CPN tools was released. Marc has made great contributions to this development, in particular to the functional language part. Marc also made many beautiful models in ExSpect, including the models for the Dutch railway company. In 1994 ExSpect was transferred to industry.

After that time Marc concentrated on the underlying process theories. He made several contributions to the integration of process algebras and Petri Nets.

In the last ten years he was doing a lot of research on workflow systems, in particular on the analysis of the soundness properties, among which he considered the algorithm for analysis of soundness under resource constraints as the most important one. He was a master in finding counter examples and PhD students always knew to whom they should go if they got stuck when trying to find one.

Marc was a very modest; he often did not see the brilliancy of his own contributions because he saw new problems that were not solved yet! Marc was not only a very talented scientist who wrote about 150 papers, but he also was a good musician and a walking encyclopedia.

We lost a very cheerful, helpful and brilliant colleague. He will live in our memories.

On behalf of the Information Systems group of TU/e,  
Kees van Hee