Bio of Reiner Hartenstein

http://hartenstein.de

Reiner Hartenstein is CS professor at TU Kaiserslautern and was visiting professor at UC Berkeley. As a scholar of Karl Steinbuch his degrees are from KIT Karlsruhe Institute of Technology, where he later was associate professor. He is consultant, authorized expert and referee.

Reiner Hartenstein generalized the systolic array from special method to a paradigm: http://www.fpl.uni-kl.de/staff/hartenstein/lot/Invent_something.pdf .

Reiner Hartenstein is credited to be the father of High Performance Reconfigurable Computing (HPRC) as well as of the counterpart to the von Neumann machine paradigm (by using data counters instead of a program counter): father of the data-stream machine paradigm (no „dataflow“ machine), also called anti-machine or xputer (not: transputer) http://hartenstein.de/xputers.htm. Here, already in the 80ies, he spearheaded methodologies to cope with the von Neumann syndrome (decades before this term has been coined), obtaining speed-up factors by up to several orders of magnitude.

Reiner Hartenstein is the father of the trail-blazing hardware design language KARL used worldwide in the 80ies, also the backbone of the world's first complete VLSI design and testing CAD framework (also see http://hartenstein.de/KARLhistory.htm http://hartenstein.de/KARLusers.htm#karl_lic). Being fully calculus-capable, KARL enabled the first Term Rewriting demonstrations in top-down EDA by an integer multiplier automatically generated from the math formula, and, by inventing the Shuffle Sort algorithm by parallelizing the Bubble Sort for VLSI implementation, and other pioneering examples (see http://hartenstein.de/TR/).

Reiner Hartenstein is the founder of three, and a cofounder of two more successful international conference series (PATMOS, EUROMICRO, FPL, RAW, and others). Reiner is also the founder of the Multi University „E.I.S. Projekt“, the German contribution to the worldwide Mead-&-Conway VLSI design revolution (the first on the continent - from Lisbon thru Wladiwostok) - incubator of the huge EU-funded worldwide EUROCHIP action (highly active still to-day: also see http://hartenstein.de/EIS.htm http://hartenstein.de/EIS-Lynn and http://hartenstein.de/EIShistory-DE or http://hartenstein.de/EIS-history.html). and http://www.fpl.uni-kl.de/staff/hartenstein/lot/inv/index.htm.

Reiner Hartenstein is IEEE life fellow, SDPS fellow, FPL fellow, and recipient of several other awards. He has published 14 books and more than 600 technical papers and presentations and has given numerous talks, including many invited tutorials and more than 200 invited talks and 50 keynote addresses: http://hartenstein.de/keynotes.htm