

New Textbooks on Parallel Architectures, Algorithms and Programming*

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Abstract

In the recent years there were several TÁMOP projects in Hungary to develop new and modern high-level textbooks (in mostly electronic form) in various fields. Starting from January of 2012 there were a two year projects entitled “Sokprocesszoros rendszerek a mérnöki gyakorlatban” (Multiprocessor systems in engineering practice) involving three universities, namely, University of Pécs, University of Debrecen and Óbuda University. In the project 23 new materials are written, 10 books by the authors from the University of Debrecen. In this talk/paper we present these new books. The topics of these books cover a wide range from theory of algorithms through on parallel programming languages till cloud computing technologies. The books are provided by the publisher Typotex, they can effectively be used to teach students in various levels in various Universities in Software, System and Computer Engineering, Computer Science, Information Technology and in related disciplines. There are three books which written in both Hungarian and English, three books are only in Hungarian and one book is available only in English. They are:

Theoretical (general):

- T. Herendi, B. Nagy: Parallel approach of algorithms (English and Hungarian)

Mathematical, theoretical in a more specific domain:

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- T. Herendi: Parallel numerical methods (English and Hungarian)
- P. Battyányi: Selected Topics in the Theory of Concurrent Processes with Applications (English)

Practical, technological, programming:

- N. Bátfai: Parallel programming in GNU/Linux environment: SysV IPC, P-threads, OpenMP (Hungarian)
- Gy. Kovács: OpenCL (English and Hungarian)
- Gy. Kovács: Parallel programming tools and their combined applications (Hungarian)

Technological, services:

- Z. Gál: Cloud computing architectures and services (Hungarian)

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