

# Professor MITICĂ CRAUS Ph.D.

## Curriculum Vitae

### COORDINATES:

Technical University "Gheorghe Asachi" of Iasi, Romania  
Faculty of Automatic Control and Computer Engineering  
Department of Computer Science and Engineering  
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### BIRTH INFORMATION:

Uricani, Romania, October 29, 1955

### EDUCATION:

1977-1982 Mathematics - Computer Science, "Al. I. Cuza" University of Iasi, Romania; Diploma (1979)  
1992-1999 Doctoral program in Computer Science, "Al. I. Cuza" University of Iasi, Romania; Ph.D. Diploma (1999).

### CAREER HISTORY:

Research Assistant - National Institute for Electric Power, Bucharest, Romania (1979-1982);  
Teacher - College "Grigore Moisil" of Iasi, Romania (1982-1986);  
Analyst - Computing Center, Technical University "Gheorghe Asachi" of Iasi  
Assistant Professor - Department of Computer Engineering, Technical University "Gheorghe Asachi" of Iasi, Romania (1999-2002)  
Associate Professor - Department of Computer Engineering, Technical University "Gheorghe Asachi" of Iasi, Romania (2002-2005)  
Professor - Department of Computer Engineering, Technical University "Gheorghe Asachi" of Iasi, Romania (2005-present)

### STUDY PERIODS ABROAD

Research program TRACS (Training and Research on Advancing Computing Systems) at EPCC (Edinburgh Parallel Computing Centre), Scotland - the subject "Data structures and algorithms for distributed search"

### TRAINING VISITS ABROAD

Training in "Academic library reorganization" at the University of Montpellier (1996,1997) and University of Barcelona (1997) - Tempus JEP 9596

### TEACHING EXPERIENCE

*Taught courses:*. Algorithm design, Parallel computing, Fundamental of the distributed systems, Object oriented programming, Distributed programming, Data structures and algorithms, Formal languages and compilers  
*Laboratory work:* Algorithm design, Parallel computing, Fundamental of the distributed systems, Object oriented programming, Distributed programming, Data structures and algorithms, Formal languages and compilers

### RESEARCH EXPERIENCE

*Fields of interest:* Parallel and distributed computing, Algorithms design, Grid technologies, Graphs algorithms, Information retrieval, Data mining, Systolic architectures and algorithms, Computer programming

### PUBLICATIONS (author and co-author)

Books 6; Book chapters 3; Journal papers 26 ; Conference papers 25  
Editor chief of the volume "New Trends in Computer Science and Engineering", A92 Publishing House, POLIROM Press, 2003  
Editor chief of the Proceedings of the 8th International Symposium on Automatic Control and Computer Science, SACCS'04, Iasi, Romania, October 22-23, 2004  
H.N. Teodorescu, M.Craus (eds.) "Scientific and Educational Grid Applications, Politehnum Publishing House, Iași, 2008

### GRANTED RESEARCH AND EDUCATIONAL PROJECTS

Director: 5; Member: 14

### SERVICE AND PROFESSIONAL ACTIVITIES

Member in International Program Committees of 4 conferences  
Scientific events organizer:  
- Symposium on Grid Applications, Iasi, Romania, July 10-12, 2008  
- Workshop on Scientific and Educational Grid Applications, Iasi, Romania, November 16-18, 2007

- Invited session “Grid and Advanced Computing in Applications”, CSCS16 conference, 16th International Conference on Control Systems and Computer Science, Polytechnic University, Bucharest, May 22-25, 2007
- Special session “Parallel and Distributed Systems”, 9th WSEAS International Conference on Computers. Vouliagmeni, Athens, Greece, July 14-16, 2005
- SACCs 2004 (8th International Symposium on Automatic Control and Computer Science), Iasi, Romania, October, 28-29, 2004

#### AWARDS

Included in “Who’s Who in the World”, 2007-2009

International Educator of the year 2007 – International Biographical Centre of Cambridge, England

#### SELECTED PAPERS

##### Books

- D. Lucanu, M.Craus. *Algorithm Design* (in Romanian). Polirom Publishing House, Iași, ISBN 978-973-46-1140-9, 362 pag., 2008
- M. Craus, C. Aflori, C. Buțincu, I. Sova, F., Leon, A.I., Gavrilă. *Web Information Retrieval* (in Romanian). Politehnum Publishing House, Iași, ISBN 973-621-134-7, , 200 pag., 2006
- C. Aflori, M. Craus, I. Sova, F. Leon, C. Butincu, C.M. Amarandei. *GRID – Technologies and Applications* (in Romanian). Politehnum Publishing House, Iași, ISBN 973-621-122-3, 200 pag., 2006
- L. Iancu, M. Craus, A.I. Gavrilă. *Formal Languages and Compilers* (in Romanian). "Gh.Asachi" Publishing House, Iași, ISBN 973-8292-89-1, 146 pag., 2003
- M. Craus. *Algorithms for Parallel Processing* (in Romanian). "Gh.Asachi" Publishing House, Iași, ISBN 973-8292-67-0, 198 pag., 2002
- M. Craus, C. Bârsan. *Data Structures and Algorithms* (in Romanian). "Gh.Asachi" Publishing House, Iași, ISBN 973-8292-26-3, 193 pag., 2002

##### Journals and Proceedings

- M. Craus, A. Archip. A Generalized Parallel Algorithm for Frequent Itemset Mining. *Recent Advances in Computer Engineering*, ISSN 1790-5109, New aspects of computers, 2008
- M. Craus. A New Parallel Algorithm for the Frequent Itemset Mining Problem. *7th International Symposium on Parallel and Distributed Computing* (ISPDC 2008), Krakow, Poland, July 1-5, 2008, pp.165-170, Published by the IEEE Computer Society
- Archip, M. Craus, S. Aruștei. Efficient Grid Service Design to Integrate Parallel Applications. *The Second International Workshop on Architectures, Concepts and Technologies for Service Oriented Computing* (ICSOF 2008), part of the a 3rd International Conference on Software and Data Technologies (ACT4SOC 2008), 5-8 July, 2008, Porto, Portugal
- S. Aruștei, M. Craus, A. Archip. Towards a generic framework for deploying applications as grid services. *The Second International Workshop on Architectures, Concepts and Technologies for Service Oriented Computing* (ICSOF 2008), part of the a 3rd International Conference on Software and Data Technologies (ACT4SOC 2008), 5-8 July, 2008, Porto, Portugal
- Aflori, M. Craus. Grid Implementation of the Apriori Algorithm. *Advances in Engineering Software*, Volume 38, Issue 5, Elsevier Ltd., 2007
- M. Craus. A New Algorithm for Association Rule Discovery. *Memoirs of the Scientific Sections*, Romanian Academy, Volume 30, pp. 103-112, 2007
- Archip, C. Amarandei, M. Craus. Optimizing Association Rule Mining Algorithms using C++ STL Templates. *Bulletin of the Polytechnic Institute of Iasi*, LIII (LVII), 2007
- Butincu, M. Craus, D. Galea. Architecting J2EE based Applications on Multiple Layers. *International Journal of Computers, Communications & Control*, Volume 1, Oradea, Romania, ISSN 1841-9836 pp. 105-112, 2006
- M. Craus, L. Rudeanu. Parallel Framework for Cooperative Processes. *Scientific Programming*, 9244 Volume 13, Number 3, IOS Press, ISSN 1058-9244, pp. 205-217, 2005
- Bulancea, M. Craus. Infection Simulation. *NATO Science Series: Computer & Systems Sciences*, Volume 195, Concurrent Information Processing and Computing, IOS Press, Netherlands, ISSN 1387-6694, pp. 233-242, 2005
- M. Craus, C. Bulancea. An Improved Load Balance Strategy using ACO Metaheuristics. *WSEAS Transactions on Computers*, Volume 4, Issue 8, ISSN 1109-2750, pp. 960-965, 2005
- L. Rudeanu, M. Craus. Parallel Implementation of Ant Colony Optimization for Traveling Salesman Problem. *WSEAS Transactions on Systems*, Volume 3, Issue 3, ISSN 1109-2777, pp. 1166-1170, 2004
- M. Craus, D. Ardelean. Parallel Implementation of a Dynamic Programming Paradigm. *Proceedings of the International Conference on Parallel Computing in Electrical Engineering - PARELEC 2002*, Warsaw, Poland, 22-25 sept. 2002, Published by the IEEE Computer Society, ISBN 0-7695-1730-7, pp.419-422, 2002
- M. Craus. Parallel and Distributed Solutions for the Optimal Binary Search Tree Problem. *Lecture Notes in Computer Science* 2326, Springer-Verlag, ISSN 0302-9743, pp. 103-118, 2002
- Aioanei, M. Craus. Java Rational Arithmetic Library with Rounding Control. *Bulletin of the Polytechnic Institute of Iasi*, XLVIII[LIII], 1-4, pp. 67-80, 2003

- M. Craus, M.H. Zaharia. A life Cluster of Digital Library. *Bulletin of the Polytechnic Institute of Iasi*, XLVIII[LII], 1-4, pp. 139-144, 2002
- M. Craus, M.H. Zaharia, C. Amarandei. Efficient Routing Using an Optimal Path Election Parallel Algorithm. *Advances in Electrical and Computer Engineering*, No 1 / 2002, ISSN 1582-7445, Suceava, pp. 57-60, 2002