

CURRICULUM VITAE

ד"ר אלנה רווה Dr. Elena Ravve

December, 2012

ORT Braude College, Department of Software Engineering,
P.O. Box 78, Karmiel 2161002, Israel
Telephone: +972-4-990-1845
Email: cselena@braude.ac.il

EDUCATION

Ph.D. 1999, Computer Science, Technion – Israel Institute of Technology
M.Sc. 1995, Computer Science, Technion – Israel Institute of Technology
B.Sc. 1985, Applied Mathematics, Moscow Rail Way Institute, URSS

RESEARCH INTERESTS

- Model theory, parametrized descriptive complexity theory
- Multi-criteria identification, optimization and clustering
- Effective parallel and distributed computations on decomposable structures
- Database theory
- Graph polynomials
- CAD tools for both logical and physical VLSI design
- Verification of logical designs, using both simulation and formal verification methods and tools
- Verification of physical designs

ACADEMIC APPOINTMENTS

2010 – present	Lecturer, Ort Braude College, Department of Software Engineering
2008-2012	Senior lecturer, Netanya Academic College, Department of Computer Science
ESSLI 2003	Teaching assistant: Logical Methods in Combinatorial Computations, Universität Wien, Austria
ESSLI 1997	Teaching assistant: Translations, Interpretations and Reductions, Université à Aix-en-Provence, France
1992-1998	Graduate chief teaching assistant, Faculty of Computer Science, Technion– Israel Institute of Technology

TEACHING EXPERIENCE

ORT Braude College:

Graduate Courses:

Definability and Computability (New course)

Undergraduate Courses:

Digital Systems Testing and Design Verification (New course)

Parallel and Distributed Computations

Theory of Compilation

Other Universities or Colleges

Netanya Academic College

Undergraduate Courses:

Operating Systems,

Introduction to Computer (Assembly)

Technion – Israel Institute of Technology

Graduate Courses:

Database Theory

Effective and Parallel Computations

Numerical Solutions of Partial Differential Equations

Undergraduate Courses:

Database Design

Logic in Computer Science

Program Languages

Universität Wien, Austria

Graduate Course

Logical Methods in Combinatorial Computations

Université à Aix-en-Provence, France

Graduate Course

Translations, Interpretations and Reductions

ACADEMIC AND PROFESSIONAL AWARDS AND GRANTS

1998 Technion – Israel Institute of Technology. Prize of Excellence

PROFESSIONAL ACTIVITIES

ORT Braude College:

- 2011 – present Responsible for the departmental seminar
- 2011 – present Responsible for relationship with industry
- 2012 – present Adviser: First Year Software and Systems Engineering
- 2012 – present Member, College Computing Committee
- 2012 – present Member, Systems Engineering M.Sc. program teaching committee

INDUSTRIAL EXPERIENCE:

- 2003-2008 Integration Section Manager, Tower Semiconductor
- 2000-2003 Senior Computer Aided Design/Validation Engineer, Intel Israel
- 1998-2000 Senior Computer Aided Design Engineer, Motorola Semiconductor Israel (Freescale now), CAD
- 1985-1990 Computer Aided Design Engineer, Academic Institute of Theoretical Engineering, USSR

LIST OF PUBLICATIONS

Refereed Papers

1. *Johann A. Makowsky, Elena V. Ravve*: BCNF via Attribute Splitting, Lecture Notes in Computer Science, Springer vol. 7260: 73-84 (2012)
2. *Eldar Fischer, Johann A. Makowsky, Elena V. Ravve*: Counting truth assignments of formulas of bounded tree-width or clique-width. Discrete Applied Mathematics 156(4): 511-529 (2008)
3. *Johann A. Makowsky, Elena V. Ravve*: Dependency Preserving Refinements and the Fundamental Problem of Database Design. Data Knowl. Eng. 24(3): 277-312 (1998)

Books and Lecture Notes

1. *J. A. Makowsky and E. V. Ravve* : Logical Methods in Combinatorial Computations, 15th European Summer School in Logic, Languages and Information, August 18-29, 2003, Universität Wien, Austria
2. *J. A. Makowsky and E. Ravve* (eds.): Logic Colloquium '95, Lecture Notes in Logic, vol. 11 Springer (1998)

Conference Proceedings and Abstracts

1. *Tomer Kotek, Johann A. Makowsky and Elena V. Ravve*: A Computational Framework for the Study of Partition Functions and Graph Polynomials (Extended Abstract). Accepted to 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, September 26-29, 2012 Timisoara, Romania

2. *Ilia Averbouch, Tomer Kotek, Johann A. Makowsky and Elena V. Ravve:* The Universal Edge Elimination Polynomial and the Dichromatic Polynomial. *Electronic Notes in Discrete Mathematics* 38: 77-82 (2011)
3. *Johann A. Makowsky, Elena V. Ravve:* The Fundamental Problem of Database Design. *Software Seminar (SOFSEM) 1997:* 53-69
4. *Johann A. Makowsky, Elena V. Ravve:* Translation Schemes and the Fundamental Problem of Database Design. *Proceedings of the 15th International Conference on Conceptual Modeling (ER) 1996:* 5-26
5. *Johann A. Makowsky, Elena V. Ravve:* Incremental Model Checking for Decomposable Structures. *Proceedings of the 20th International Symposium on Mathematical Foundations of Computer Science MFCS 1995:* 540-551

Other Publications

Industrial Conference Proceedings:

1. *Elena V. Ravve:* Increase Efficiency of PDK Creation using PDK Automation System (PAS). User Group Meeting, Design Automation and Test in Europe (DATE) (2004), Paris

Technical reports and pre-prints:

1. *J.A. Makowsky and E. Ravve,* Views and Updates over Distributed Databases, June 1998