



# Tommi Tervonen

## Education and training

- 2009 **Training**, *Top Institute Pharma*, The Netherlands.  
A 5-day intensive simulation course on drug development with realistic development teams
- 2003–2007 **PhD in Computer Science**, *University of Turku*, Finland, *with honours*.
- 2003–2007 **PhD in Management Science**, *University of Coimbra*, Portugal, *with honours*.
- 2002–2003 **MSc in Computer Science**, *University of Turku*, Finland.
- 1999–2002 **BSc in Computer Science**, *University of Turku*, Finland.

## Experience

- 09/2010–  
(current) **Assistant Professor in Business Intelligence Systems**, *Econometric Institute, Erasmus University Rotterdam*, The Netherlands.  
Assistant Professor of Business Intelligence Systems at the Econometric Institute. Teaching of bachelor- and master level courses (topics in business intelligence, programming, advanced programming, security and ICT audit, distributed systems, quantitative decision models, ICT&economics). Supervision of Master students making both theoretical thesis and ones where innovative methods from management science get applied in real-life business problems in The Netherlands. Research in Management Science both individually and with partners from other European universities.
- 09/2008–  
08/2010 **PostDoc researcher**, *Faculty of Economics and Business, University of Groningen*, The Netherlands.  
Coordinating researcher of a work package within the Escher Project of the national Dutch top Institute Pharma. Coordination of Master- and PhD students and communication with external project partners. Research in medical informatics, agile software development and decision analysis. Teaching of undergraduate level computer science courses. Development of JSMAA ([www.smaa.fi](http://www.smaa.fi)) and ADDIS ([www.drugis.org](http://www.drugis.org)).
- 10/2007–  
07/2008 **Security engineer**, *ARDACO a.s.*, Bratislava, Slovakia.  
Software design and development, design of software security components, security analysis, design and implementation of software testing procedures.
- 11/2007–  
06/2008 **Part-time language teacher**, *KONE SSC*, Bratislava, Slovakia.  
Teaching of an intermediate-level Finnish course.
- 06/2007–  
07/2007 **Contracted researcher**, *US Army Corps of Engineers*, Vicksburg, USA.  
Nanomaterial research and development of decision support software.
- 05/2005–  
12/2007 **Invited researcher / PhD student**, *Centre for Management Studies, IST, Technical University of Lisbon*, Portugal.  
Research in management/computer science. Development of CSMAA, a cross-platform decision-support software.
- 09/2004–  
05/2006 **Invited researcher / PhD student**, *INESC-Coimbra and Faculty of Economics, University of Coimbra*, Portugal.  
Research in management/computer science.
- 09/2003–  
07/2004 **Assistant**, *Department of Information Technology, University of Turku*, Finland.  
Contact teaching of under- and graduate level computer science courses (introduction to computers, linux and systems programming, discrete event simulation, programming) and supervision of student assignments.

- 03/2001–08/2003 **Part-time teacher**, *Department of Computer Science, University of Turku*, Finland.  
Contact teaching of undergraduate computer science courses (introduction to computers).
- 06/2002–02/2003 **Software/system developer**, *Keskiyö OY*, Turku, Finland.  
Re-design and implementation of a complete company ICT infrastructure.
- 06/2001–09/2001 **Software developer**, *Kovotekniikka OY*, Naantali, Finland.  
Design and implementation of an GSM-based centralized update system for Info-TVs.
- 06/2000–02/2001 **Software developer**, *Gatefive OY*, Turku, Finland.  
Design and implementation of web-based systems.

## Languages

Finnish	<b>Mother tongue</b>	
English	<b>C1</b>	<i>proficient user</i>
Portuguese	<b>B2</b>	<i>independent user</i>
French	<b>A2</b>	<i>Basic user</i>
Dutch	<b>A2</b>	<i>Basic user</i>
Swedish	<b>A2</b>	<i>Basic user</i>
Slovak	<b>A1</b>	<i>Basic user</i>

## Main publications

- [1] T. Tervonen, JSMAA: open source software for SMAA computations, *International Journal of Systems Science* (to appear).
- [2] G. van Valkenhoef, T. Tervonen, T. Zwinkels, B. de Brock, H. Hillege, ADDIS: a decision support system for evidence-based medicine, *Decision Support Systems* (to appear).
- [3] G. van Valkenhoef, T. Tervonen, J. Zhao, B. de Brock, H. L. Hillege, D. Postmus, Multi-criteria benefit-risk assessment using network meta-analysis, *Journal of Clinical Epidemiology* (to appear). doi:10.1016/j.jclinepi.2011.09.005.
- [4] G. van Valkenhoef, T. Tervonen, B. de Brock, D. Postmus, Quantitative release planning in extreme programming, *Information and Software Technology* 11 (2011) 1227–1235. doi:10.1016/j.infsof.2011.05.007.
- [5] G. van Valkenhoef, T. Tervonen, B. de Brock, H. L. Hillege, Algorithmic parameterization of mixed treatment comparisons, *Statistics and Computing* (to appear). doi:10.1007/s11222-011-9281-9.
- [6] T. Tervonen, G. van Valkenhoef, E. Buskens, H. L. Hillege, D. Postmus, A stochastic multicriteria model for evidence-based decision making in drug benefit-risk analysis, *Statistics in Medicine* 30 (12) (2011) 1419–1428. doi:10.1002/sim.4194.
- [7] T. Tervonen, I. Linkov, J. Steevens, M. Chappell, J. R. Figueira, M. Merad, Risk-based classification system of nanomaterials, *Journal of Nanoparticle Research* 11 (4) (2009) 757–766. doi:10.1007/s11051-008-9546-1.
- [8] T. Tervonen, J. R. Figueira, R. Lahdelma, J. Almeida Dias, P. Salminen, A stochastic method for robustness analysis in sorting problems, *European Journal of Operational Research* 192 (1) (2009) 236–242. doi:10.1016/j.ejor.2007.09.008.
- [9] T. Tervonen, H. Hakonen, R. Lahdelma, Elevator planning with Stochastic Multicriteria Acceptability Analysis, *Omega* 36 (3) (2008) 352–362. doi:10.1016/j.omega.2006.04.017.
- [10] T. Tervonen, J. R. Figueira, A survey on stochastic multicriteria acceptability analysis methods, *Journal of Multi-Criteria Decision Analysis* 15 (1–2) (2008) 1–14. doi:10.1002/mcda.407.
- [11] T. Tervonen, R. Lahdelma, Implementing stochastic multicriteria acceptability analysis, *European Journal of Operational Research* 178 (2) (2007) 500–513. doi:10.1016/j.ejor.2005.12.037.
- [12] T. Tervonen, G. F. Barberis, J. R. Figueira, M. C. Escibano, Site selection for a university kindergarten in madrid, in: R. Bisdorff, V. Mousseau, M. Pirlot, L. C. Dias (Eds.), *Evaluation and Decision Models with Multiple Criteria: Case Studies*, Springer (to appear), 2010.

- [13] I. Linkov, J. Steevens, M. Chappell, T. Tervonen, J. R. Figueira, Classifying nanomaterial risks using multi-criteria decision analysis, in: I. Linkov, J. Steevens (Eds.), *Nanomaterials: Risks and Benefits*, Springer Science+Business Media, 2009.
- [14] T. Tervonen, J. R. Figueira, R. Lahdelma, P. Salminen, SMAA-III: A simulation-based approach for sensitivity analysis of ELECTRE III, in: I. Linkov, E. Ferguson, V. Magar (Eds.), *Real-time and Deliberative Decision Making*, Springer, 2008.
- [15] I. Linkov, A. Tkachuk, T. Levchenko, J. Seager, J. Figueira, T. Tervonen, A multi-criteria decision analysis approach for establishing performance metrics under government performance assessment and results act: example of oil spill response, in: I. Linkov, R. Wenning, G. Kiker (Eds.), *Risk Assessment and Decision Support for Ports and Critical Infrastructure*, Springer, 2007.
- [16] T. Tervonen, R. Lahdelma, J. A. Dias, J. Figueira, SMAA-TRI: a parameter stability analysis method for ELECTRE TRI, in: I. Linkov, G. A. Kiker, R. J. Wenning (Eds.), *Environmental Security in Harbors and Coastal Areas*, NATO Science for Peace and Security Series C: Environmental Security, 2007.
- [17] T. Tervonen, New directions in stochastic multicriteria acceptability analysis, Ph.D. thesis, University of Turku, *Annales Universitatis Turkuensis AI/376* (2007).
- [18] T. Tervonen, B. de Brock, P. A. de Graeff, H. L. Hillege, Current status and future perspectives of drug information systems, in: *Proceedings of the 18th European Conference on Information Systems (ECIS2010)*, Pretoria, South Africa, 2010.
- [19] G. van Valkenhoef, T. Tervonen, B. de Brock, D. Postmus, Release and product planning practices for extreme programming, in: A. Sillitti, A. Martin, X. Wang, E. Whitworth (Eds.), *Proceedings of the 11th International Conference on Agile Software Development (XP2010)*, Trondheim, Norway, 2010.
- [20] T. Tervonen, JSMAA: an open source software for SMAA computations, in: C. H. Antunes, D. R. Insua, L. C. Dias (Eds.), *Proceedings of the 25th Mini-EURO conference on Uncertainty and Robustness in Planning and Decision Making (URPDM2010)*, Coimbra, Portugal, 2010.
- [21] R. Lahdelma, T. Tervonen, P. Salminen, J. Figueira, Group preference modeling in SMAA using belief functions, in: *Proceedings of the 23rd IASTED International Conference on Artificial Intelligence and Applications*, Innsbruck, Austria, ACTA Press, 2005.
- [22] T. Tervonen, J. Figueira, R. Lahdelma, P. Salminen, An approach for modeling preference of multiple decision makers, in: T. Honkela, M. Kononen, M. Polla, O. Simula (Eds.), *Proceedings of the Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR05)*, Espoo, Finland, 2005, pp. 82–89.
- [23] R. Lahdelma, K. Miettinen, P. Salminen, T. T. Tervonen, Computational methods for Stochastic Multicriteria Acceptability Analysis, in: P. Neittaanmäki, T. Rossi, S. Korotov, E. Onate, J. Periaux (Eds.), *ECCOMAS 2004*, vol. 2, Jyväskylä, Finland, 2004.