

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Verkeyn
First names: Andy Albert Alfons
Address: Aalbroekstraat 21
B-9890 GAVERE (Belgium)
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Email: andy@verkeyn.net
WWW: <http://www.verkeyn.net>
Date of birth: March 31, 1975
Place of birth: Roeselare, Belgium
Nationality: Belgian
Marital status: Single
Driver's license: B



EDUCATION

Secondary School - Mathematics (6 h.) - Sciences
Sint-Jozefsinstituut Torhout, Belgium - 1992 - 1993

Master of Science (Licentiate) in Computer Science - honor
Ghent University, Belgium - Academic year 1996 - 1997
Thesis: *A generic, object oriented library for database transactions (C++)* (in Dutch)
Supervisor: Prof.Dr.Ir. H. Tromp

Qualified Teacher's Degree for Secondary Education (section 2) in Computer Science - honor
Ghent University, Belgium - Academic year 1996 - 1997

Ph.D. in Engineering
Ghent University, Belgium - Academic year 2003 - 2004
Thesis: *Fuzzy modeling of noise annoyance*
Supervisors: Prof.Dr.Ir. D. Botteldooren and Prof.Dr. R. De Caluwe

CERTIFICATES

First-aid Certificate
Red Cross - Ghent, Belgium - 1999 (valid until 2009)

Doctoral Training in Engineering
Ghent University, Belgium - Academic year 2001 - 2002

Course French (30 hours)
Taaltrainingen Campus, Bosstraat 95, 9810 Nazareth - 21/01/2006 - 18/02/2006
Evaluation: European Level B1 (Independent User - Threshold)

COMPUTER SCIENCE CERTIFICATES

Sun Certified Java Programmer (SCJP)
Sun Microsystems - August 2005

Sun Certified Web Component Developer (SCWCD)
Sun Microsystems - October 2006

Microsoft Certified Professional - Analyzing Requirements and Designing .NET Solutions
Microsoft - May 2008

ScrumAlliance Certified Scrum Master (SCSM)
ScrumAlliance - November 2008

Sun Certified Business Component Developer (SCBCD)
Sun Microsystems - February 2010

PROFESSIONAL EXPERIENCE

- 10/1997 - 11/2004 Teaching Assistant / Researcher
Ghent University, Department of Information Technology
Sint-Pietersnieuwstraat 41, B-9000 Ghent (Belgium)
Teaching assistant for software engineering courses, combined with applied research on the application of fuzzy logic and rule-based systems to the modeling of (environmental) noise annoyance. The latter has resulted in my Ph.D. and in 26 publications, including 4 papers in international journals (in Web of Science) and 4 chapters in books.
- 12/2004 - 06/2008 Project Consultant / Teacher
Devoteam (formerly Guidance)
BDC Box 62, Heysel Esplanade, B-1020 Brussels (Belgium)
Several consultancy projects as functional and technical analyst, such as Critical Care Company (bed reservation system for hospitals admission), Digipolis Antwerp (analysis of registry office application) and Fluxys (billing and invoicing information system).
- 07/2008 - current Software Engineer Special Engines
Fluxys NV
Kunstlaan 31, B-1000 Brussels (Belgium)
Analysis, design, implementation (C++), testing and documenting of several core applications within Fluxys, such as capacity check of the gas network, balancing and optimizing gas flows,...

TEACHING EXPERIENCE

- November 1996 Training during the teacher's qualification education as an informatics teacher (final year secondary school).
- June 1998 Guiding programming exercises in Java for the Belgacom personnel, as part of an IT course organised by the Institute for Continuing Education of the Ghent University
- 10/1998 - 6/2004 Teaching assistant for courses in the Computer Science program Ghent University, Department of Information Technology
- *Programming II* (C/introduction C++) (till 2001-2002)
 - *Software engineering and object-oriented languages I* (C++, STL)
 - *Software engineering and object-oriented languages II* (Java, C/S concepts)
 - *Object-oriented analysis* (UML)
- 12/2004 - 06/2008 Creating and teaching Guidance courses on
- OO, business modeling (use cases), analysis and design, design patterns, UML, RUP,... (2 courses)
 - Java: JavaBeans, AWT/Swing, CORBA/RMI, JDBC (to MS-Access/MySQL), XML (SAX/DOM/JDOM/TRaX), Servlets/JSP, J2EE principles (4 courses)
- Customers include ING, State Street Bank, Euroclear, Unisys, Xerox, RIZIV, USG-Innotiv (formerly Beaver IT Services),...

REFERENCES

- Prof.Dr.Ir. D. Botteldooren (Ph.D. supervisor), email: dick.botteldooren@intec.ugent.be
Ghent University, Department of Information Technology
- Steven Thiers (projectleader Digipolis Antwerpen), steven.thiers@digipolis.be
Digipolis Antwerpen, Generaal Armstrongweg 1, B-2020 Antwerp (Belgium)
- Eli Destoop (manager Solutions Department Devoteam), eli.destoop@devoteam.com
Devoteam N.V., Buro & Design Center Box 62, Heysel Esplanade, B-1020 Brussels (Belgium)

LANGUAGE SKILLS

Dutch: Mother tongue
English: Proficient User
French: Independent User
German: Basic User

HOBBY'S

Listening to music, reading (non-fiction), travelling

PUBLICATIONS

PUBLICATIONS IN INTERNATIONAL JOURNALS LISTED IN THE SCIENCE CITATION INDEX (a1)

- [1] D. Botteldooren, A. Verkeyn, C. Cornelis, M. De Cock, *On the meaning of noise annoyance modifiers: a fuzzy set theoretical approach*, Acta Acustica united with Acustica, 88 (2), 2002, 239-251
- [2] D. Botteldooren, A. Verkeyn, *Fuzzy models for accumulation of reported community noise annoyance from combined source*, Journal of the Acoustical Society of America, 112 (4), 2002, 1496-1508
- [3] A. Verkeyn, D. Botteldooren, B. De Baets, G. De Tre, *Sugeno integrals for the modelling of noise annoyance aggregation*, Fuzzy Sets and Systems: State-of-the-Art Anno 2003, T. Bilgic, B. De Baets, O. Kaynak (eds), Lecture Notes in Computer Science - Lecture notes in Artificial Intelligence 2715, Springer-Verlag, 2003, 277-284
- [4] D. Botteldooren, A. Verkeyn, P. Lercher, *A fuzzy rule based framework for noise annoyance modelling*, Journal of the Acoustical Society of America, 114 (3), 2003, 1487-1498
- [5] A. Verkeyn, D. Botteldooren, B. De Baets, *Genetic learning of fuzzy integrals accumulating human reported environmental stress*, Applied Soft Computing Journal, 2009

PUBLICATIONS IN OTHER INTERNATIONAL JOURNALS (a2)

- [1] D. Botteldooren, A. Verkeyn, P. Lercher, *Noise annoyance modeling using fuzzy rule based systems*, Journal of Noise and Health, 15 (4), 2002, 27-44 (see b2 [3])

PUBLICATIONS IN BOOKS (b2)

- [1] A. Verkeyn, D. Botteldooren, *Annoyance prediction with fuzzy rule bases*, In: *Computational Intelligent Systems for Applied Research*, D. Ruan, P. D'hondt, E. Kerre (eds.), World Scientific Publishers, 2002, 411-418, ISBN: 981-238-066-3
- [2] A. Verkeyn, M. De Cock, D. Botteldooren, E. E. Kerre, *Generating membership functions for a noise annoyance model from experimental data*, In: *Studies in Fuzziness and Soft computing: Soft computing in measurement and information acquisition (Vol. 127)*, L. Reznik, V. Kreinovich (eds), Springer-Verlag, 2003, ISBN: 3-540-00246-4
- [3] D. Botteldooren, A. Verkeyn, P. Lercher, *Noise annoyance modeling using fuzzy rule based systems*, In: *Noise pollution and Health*, D. Prasher (eds), Noise Research Network Publications, London, 2003, ISBN: 1-901747-02-6 (see a2 [1])
- [4] T. De Muer, A. Verkeyn, D. Botteldooren, *Noise annoyance mapping*, In: *Spatio-Temporal Databases: Flexible Querying and Reasoning*, R. De Caluwe, G. De Tré, G. Bordogna (eds), Springer-Verlag, 2004, ISBN: 3-540-22214-6

PUBLICATIONS IN PROCEEDINGS OF SCIENTIFIC CONFERENCES (c1)

- [1] D. Botteldooren and A. Verkeyn, *Using approximate reasoning techniques to model noise annoyance*, Proceedings of the International Congress on Noise Control Engineering (Internoise) 99, Florida, USA, Dec. 1999, 1351-1356
- [2] D. Botteldooren, A. Verkeyn, P. Lercher, *Extracting linguistic rules to model community traffic noise annoyance*, Proceedings of the International Congress on Noise Control Engineering (Internoise) 2000, Nice, France, Aug. 2000 (on CD-ROM)
- [3] A. Verkeyn, *A fuzzy approach to the modeling of traffic noise annoyance*, Proceedings of the first Ph.D. symposium at the Faculty of Engineering (Ghent University), Ghent, Belgium, Dec. 2000, (on CD-ROM, paper 5)

- [4] D. Botteldooren, A. Verkeyn, P. Lercher, *What can classical and fuzzy concepts contribute to the analysis of masking effects in environmental noise surveys?*, Proceedings Conference on Noise Control Engineering (NoiseCon) 2000, California, USA, Dec. 2000 (on CD-ROM)
- [5] A. Verkeyn, D. Botteldooren, G. De Tre, R. De Caluwe, *Fuzzy modeling of traffic noise annoyance*, Proceedings of the joint 9th IFSA World Congress and 20th NAFIPS International Conference, Vancouver, Canada, Jul. 2001, 1176-1181 (and CD-ROM)
- [6] G. De Tre, A. Verkeyn, R. De Caluwe, *The application of level-2 fuzzy sets in fuzzy and uncertain data modeling*, Proceedings of the joint 9th IFSA World Congress and 20th NAFIPS International Conference, Vancouver, Canada, Jul. 2001, 2329-2334 (and CD-ROM)
- [7] D. Botteldooren, A. Verkeyn, P. Lercher, *How can classical analysis and fuzzy modeling help us find out how road noise modifies people's reaction to railway noise?*, Proceeding of the International Congress on Noise Control Engineering (Internoise) 2001, The Hague, The Netherlands, Aug. 2001 (on CD-ROM, paper 591)
- [8] D. Botteldooren, A. Verkeyn, P. Lercher, *How can we distinguish exposure and expectation effects in integrated soundscape analyses?*, Proceedings of the 17th International Congress on Acoustics (ICA) 2001, Rome, Italy, Sep. 2001 (on CD-ROM)
- [9] D. Botteldooren, A. Verkeyn, *An iterative fuzzy model for cognitive processes involved in environment quality judgement*, Proceedings of the IEEE World Congress on Computational Intelligence (WCCI) 2002, Honolulu, Hawaii, USA, May 2002, 1057-1062 (and CD-ROM, paper 4116)
- [10] A. Verkeyn, D. Botteldooren, *Towards language independent models based on survey data*, Proceedings of the IEEE World Congress on Computational Intelligence (WCCI) 2002, Honolulu, Hawaii, USA, May 2002, 1063-1068 (and CD-ROM, paper 4117)
- [11] D. Botteldooren, A. Verkeyn, *Aggregation of specific noise annoyance to a general noise annoyance rating: a fuzzy model*, Proceedings of the 9th International Congress on Sound and Vibration, Orlando, Florida, USA, Jul. 2002 (on CD-ROM)
- [12] A. Verkeyn, D. Botteldooren, *The effect of land-use variables in a fuzzy rule based model for noise annoyance*, Proceedings of the 31th International Congress on Noise Control Engineering (Internoise) 2002, Dearborn, Michigan, USA, Aug. 2002 (on CD-ROM, paper 371)
- [13] G. De Tre, A. Hallez, J. Verstraete, A. Verkeyn, *Beyond conjunctive aggregation of possibilistic truth values in database systems*, Proceedings of Eurofuse Workshop on Information Systems, Villa Monastero, Varenna, Italy, Sep. 2002, 137-142
- [14] A. Verkeyn, D. Botteldooren, B. De Baets, G. De Tre, *Modeling annoyance aggregation with Choquet integrals*, Proceedings of Eurofuse Workshop on Information Systems, Villa Monastero, Varenna, Italy, Sep. 2002, 259-264
- [15] D. Botteldooren, P. Lercher, A. Verkeyn, *Noise annoyance and coping: a soft analysis*, Proceedings of 8th International Congress on Noise as a Public Health problem, Rotterdam, The Netherlands, Jun. 2003, 288-289
- [16] A. Verkeyn, *Fuzzy modeling of noise annoyance*, Proceedings of the first Flanders Engineering Ph.D. Symposium, Brussels, Belgium, Dec. 2003 (on CD-ROM)
- [17] A. Verkeyn, D. Botteldooren, *Fuzzy translation tool for linguistic terms*, Proceedings of the IEEE International Conference on Fuzzy Systems, Budapest, Hungary, Jul. 2004 (on CD-ROM)
- [18] A. Verkeyn, D. Botteldooren, *Fuzzy performance measures for noise annoyance models*, Proceedings of the 4th International Conference on Intelligent System Design and Applications, Budapest, Hungary, Aug. 2004 (on CD-ROM)
- [19] D. Botteldooren, A. Verkeyn, B. De Baets, P. Lercher, *Fuzzy Integrals as a Tool for Obtaining an Indicator for Quality of Life*, Proceedings of the IEEE World Congress on Computational Intelligence (WCCI) 2006, Vancouver, Canada, Jul. 2006 (accepted)

SCIENTIFIC ACTIVITIES

INTERNATIONAL CONFERENCES

- [1] *Fuzzy modeling of traffic noise annoyance*, Oral presentation at the joint 9th IFSA World Congress and 20th NAFIPS International Conference, Vancouver, Canada, Jul. 2001
- [2] *Towards language independent models based on survey data*, Presented at the IEEE World Congress on Computational Intelligence (WCCI) 2002, Honolulu, Hawaii, USA, May 2002
- [3] Co-chair with D. Botteldooren, *Soft computing in Environment Applications* session (invited) at the 5th International Fuzzy Logic Intelligent technologies in Nuclear Science (FLINS) Conference on Computational Intelligent Systems for Applied Research, Het Pand, Ghent (Belgium), 16-18 Sep. 2002
- [4] *Annoyance prediction with fuzzy rule bases*, Oral presentation (invited) at the 5th International Fuzzy Logic Intelligent technologies in Nuclear Science (FLINS) Conference on Computational Intelligent Systems for Applied Research, Het Pand, Ghent, Belgium, Sep. 2002
- [5] *Modeling annoyance aggregation with Choquet integrals*, Oral presentation at the Eurofuse Workshop on Information Systems, Villa Monastero, Varenna, Italy, Sep. 2002
- [6] *Sugeno integrals for the modelling of noise annoyance aggregation*, Oral presentation at the 10th IFSA World Congress, Istanbul, Turkey, Jun. 2003
- [7] *Fuzzy translation tool for linguistic terms*, Oral presentation at the IEEE International Conference on Fuzzy Systems, Budapest, Hungary, Jul. 2004

NATIONAL CONFERENCES

- [1] *A fuzzy approach to the modeling of traffic noise annoyance*, Poster at the first Ph.D. symposium at the Faculty of Engineering (Ghent University), Ghent, Belgium, Dec. 2000
- [2] *Fuzzy modeling of noise annoyance*, Poster at the first Flanders Engineering Ph.D. symposium, Brussels, Belgium, Dec. 2003

LECTURES AT SCIENTIFIC ORGANIZATIONS

A fuzzy model for traffic noise annoyance, Oral presentation at the ABAV Meeting, Belgian Acoustical Association, Castle of Colonster, Luik (Sart-Tilman), Belgium, 25 May 2000.

GRANTS

- IEEE Neural Network Society Student travel grant, IEEE World Congress on Computational Intelligence (WCCI) 2002, Honolulu, Hawaii, May 2002: \$ 150 conference registration + 5 hotel nights
- IEEE Neural Network Society Student travel grant, IEEE International Conference on Fuzzy Systems, Budapest, Hungary, June 2004: \$ 500

MASTER'S THESIS SUPERVISION

F. Goethals, *Ontwerp van een systeem voor online en offline interactie van studenten met een internetcursus*, 1999-2000 (to obtain the academic degree of civil engineer in the computer science)

PROFESSIONAL SERVICE

- Representative of the scientific personnel in the Department Council (from Oct. 1999)
- Member of the Interfaculty Informatics Education Commission (from Oct. 2000)
- Affiliate of International Noise Control Engineering (INCE)/Europe (from Jun. 2001)
- Member of the Institute of Electrical and Electronic Engineers (IEEE) (from Feb. 2002)
- Reviewer of some papers in international journals
 - Fuzzy sets and systems (2001: 1)
 - Journal of the Acoustical Society of America (2003: 1; 2004: 1)
 - IEEE Transactions on Systems, Man and Cybernetics (2004: 1)
 - International Journal of Artificial Intelligence Tools, special issue on Intelligent Tools for Problem Solving in Bioinformatics and Medicine (2005: 2)