

CURRICULUM VITAE:

Name: Ari Visa
Year of birth: 1958

1. PERSONAL DATA

Date and Place of birth December 7th, 1958 in Urjala, Finland
 Citizenship Finland
 Languages Finnish, English, German, Swedish, some Russian and French
 Current position **Professor of Signal Processing**, 1.1.2000 -
 Head of Department of Signal Processing 1.1.2008-31.12.2010
 Tampere University of Technology
 Department of Signal Processing
 P.O Box 553, FI-33101 Tampere, Finland.
Adjunct Professor (Docent) Aalto University, School of Science 1.1.1994 –
 Family status Wife and four children

2. ACADEMIC DEGREES

Professor in Signal Processing, Tampere University of Technology, Signal Processing 1.1.2000
 Docent In Image Analysis, Aalto University, School of Science 1.1.1994
 Doctor of Technology “Texture Classification, and Segmentation Based on Neural
 Networks Methods”, Helsinki University of Technology 17.12.1990
 Licentiate of Technology, Information Science, Helsinki University of Technology 19.01.1988
 Master in Science in Computer Science and Technology, Computer engineering,
 The University of Linköping, Sweden 17.03.1981

EDUCATION

1974.09.01 - 1977.05.31 : Urjala Senior Secondary School, Finland
 1977.09.01 - 1981.03.17 : Linköping University, Linköping Institute of Technology, Sweden
 1983.10.11 - 1984.09.04 : Military Service, Finland
 1985.09.01- 1988.01.19 : Postgraduate studies to the Grade of the Licentiate of Technology,
 Helsinki University of Technology, Finland
 1989.01.01- 1990.12.17 : Postgraduate studies to the Grade of the Doctor of Technology,
 Helsinki University of Technology, Finland

MILITARY OCCUPATION AND RANK:

Antiaircraft Officer, First Lieutenant

3. DOCENTSHIPS

Docent In Image Analysis, Aalto University, School of Science 1.1.1994
 Docent In Information Technology, Tampere university of Technology 1.3.1998-1.4.2005

4. POSITIONS HELD:

1981.04.01 - 1983.09.30 An assisting teacher, **Linköping University**, Department of Electrical Engineering,
 1983.10.11 - 1984.09.04 Military Service, Antiaircraft, Officer
 1984.09.10 - 1986.10.13 Researcher, **Technical Research Centre of Finland**, Graphic Arts Laboratory
 1986.10.13 - 1988.05.31 Chief Engineer and Project Manager, **Pöyry Concern**,
 1988.06.01 - 1988.12.31 Senior Researcher, **Technical Research Centre of Finland**, Graphic Arts Laboratory
 1989.01.01 - 1993.03.29 Assistant professor, **Helsinki University of Technology**, Laboratory of Computer and
 Information Science
 1993.04.01 - 1996.07.30 Laboratory Manager, **Helsinki University of Technology**, Laboratory of Computer and
 Information Science

1996.08.01 - 1997.03.31 Associated Professor, Learning and Intelligent Systems, **Lappeenranta University of Technology**, Department of Information Technology
 1997.04.01 - 1998.09.31 Acting Professor, Software Engineering, **Lappeenranta University of Technology**
 Department of Information Technology
 1998.10.01 - 1999.12.31 Professor, Software Engineering, **Lappeenranta University of Technology**
 Department of Information Technology
 2000.01.01 - ... Professor, Signal Processing, **Tampere University of Technology**
 Signal Processing Laboratory

5. SUPERVISED DOCTORAL DISSERTATIONS:

Iivari Kunttu, Shape and Gray Level Descriptors for Surface Defect Image Retrieval and Classification, 2005 (Tampere University of Technology):
 Leena Lepistö, Colour and texture Based Classification of Rock Images Using Classifier Combinations, 2006 (Tampere University of Technology)
 Jarmo Toivonen, Text Mining as a Tool in Real-Life Tasks, 2006 (Tampere University of Technology)
 Antti Saastamoinen, Visual and Computer-Based methods for Adaptive Sleep Analysis, 2006 (Tampere University of Technology)
 Nikhil, Knowledge Mining of Fermentative Hydrogen Processes, 2008 (Tampere University of Technology) together with professor Olli Yli-Harja
 Juho Vihonen, Sequential Detection Applied to Line-Scan Gray Level Defect Imaging, 2009 (Tampere University of Technology)
 Pasi Pertilä, Acoustic Source Localization in a Room Environment and at Moderate Distances, 2009 (Tampere University of Technology)
 Tuomo Pirinen, Confidence Scoring of Time Delay Based Direction of Arrival Estimates and a Generalization to Difference Quantities, 2009 (Tampere University of Technology)
 Elina Mattila, Design and Evaluation of a Mobile Phone Diary for Personal Health Management, 2010 (Tampere University of Technology)

6. EXPERT TASKS:

Reviewer for academic positions:

The Professorship in Signal Processing of Jyrki Joutsensalo at Tampere University of Technology (1998).
 The Docentship in adaptive signal processing of Mikko Lehtokangas at Helsinki University of Technology (1999).

Referee to the Research Council of Norway (Spring 1996)

the Italian National Institute for the Physics of Matter (1998),

the Academy of Finland (1998,1999,2000,2001,2002),

the Research Council of Israel (Spring 2003)

KK stiftelse, Sweden (winter 2009)

Referee to the following scientific magazines

Signal Processing, IEEE Transactions on Neural Networks, IEEE Transactions on Image Processing, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, SPIE: Optical Engineering, Computer Vision Graphics and Image Processing: Graphical Models and Image Processing, IEEE Image Processing, IEEE Transactions on Pattern Analysis and Machine Intelligence,

Member in Editorial Board of Journal of Electrical and Computer Engineering, by Hindawi Publishing Corporation

Member in Editorial Board of IJIIIP, International Journal of Intelligent Information Processing by Human and Science Publication

Memberships in many conference program committees.

Official Dissertation Opponent or dissertation Referee to the following dissertations:

Ilkka Autio, University of Helsinki 2008 (Opponent)

Haitao Tang, Helsinki University of Technology, 1998 (Opponent)

Harri Raittinen, Tampere University of Technology, 1996 (Opponent)

Jouko Lampinen, Lappeenranta University of Technology, 1993

Caj Södergård, Helsinki University of Technology, 1994

Pekka Toivanen, Lappeenranta University of Technology, 1995
 Timo Ojala, University of Oulu, 1997
 Jyrki Löttjönen, Helsinki University of Technology, 2000
 Seppo Pohja, Helsinki University of Technology, 2000
 Mikko Syrjäsoo, Helsinki University of Technology, 2001
 Jouko Mykkänen, Tampere University, 2003
 Poika Isokoski, Tampere University, 2004
 Eija Koskivaara, Turku School of Economics and Business Administration, 2004
 Sami Äyrämö, University of Jyväskylä, 2006

Invited talks:

- Visa, A., Texture Classification and Neural Networks Methods,
- Visa, A., Valkealahti, K., Iivarinen, J., Simula, O., Experiences from Operational Cloud Classifier Based on Self-organizing Map, in Proc of SPIE's International Symposium on Optical Engineering in Aerospace Sensing, Vol 2243, Applications of Artificial Neural Networks V, Orlando, Florida, April 5-8, pp.484-495, 1994.
- Visa, A., Technology of Text Mining, International Workshop on Machine Learning and Data Mining in Pattern Recognition Second International Workshop, Leipzig, Germany, July, 25-27, 2001

Patents:

The Finnish patent No FI-88827, Menetelmä ja laitteisto paperin laadun analysoimiseksi, VTT, Finland, (Visa, A., Daum, W.), Application FI-894826, 12.04.1991, (17.07.1993), p. 22.

The Finnish patent No FI-96139, "Menetelmä ja laite liikkuvan paperirainan formaation ja/tai kuituorientaation jatkuvaksi määrittämiseksi", VTT, Finland, (Visa, A., Ventä, O., Kohola, P., Hirvonen, J.), Application FI-935781, 21.12.1993, (10.05.1996), p. 12.

United States Patent Application Publication, Intelligent Toothbrush Monitoring Device, Pump & Brush Finland OY (Puurunen, J-P., Visa, A., Collin, J., Kantola, J.) Application US-2009/0291422A1, November 26 2009.

Advisor to 80 Master's Theses (Helsinki University of Technology, Lappeenranta University of Technology, Tampere University of Technology)

LARGE R&D PROJECTS:

- Project manager of the Finnish part of the project "System- og produktionskarakteristika for billedbehandlingssystemer til brug i grafisk virksomhed" (**Nordisk Industri Fond**), 1985.01.01 -1986.12.31
- Project manager "Applying Artificial Intelligence and Signal Processing in Paper Quality Measurements", 1988.06.01 - 1991.03.31 (**Technology Development Centre of Finland**)
- Project manager of the Finnish part of the RACE II project, "Transfer, Processing, and Interpretation of 3D Non-destructive Testing Data in a Standard Environment", (**European Community**), 1992.01.1 -1994.12.31
- Project manager of the "Automatic Cloud Classification from NOAA-Satellite Images", 1991.01.01 - 1991.12.31 (**Technology Development Centre of Finland**)
- Project manager of the "Automation of Ground Observations of Clouds", 1994.01.01 - 1994.12.31 (**Technology Development Centre of Finland**).
- Project manager "Adaptive Image Analysis", 1995.03.01 - 1998.02.28 (**Technology Development Centre of Finland**).
- Project manager "IMPRESS: Analysis of Text Documents By Means of Advanced Neural Network Methods", 1998.03.01 - 1999.12.31 (**Technology Development Centre of Finland**).
- Project manager "GILTA: Managing Large Text Masses", 2000.01.01 - 2002.12.31 (**Technology Development Centre of Finland**).
- Project manager "DIGGER: Knowledge Mining and Managing in a Distributed Image Datawarehouse", 2001.01.01 - 2004.12.31 (**Technology Development Centre of Finland**).
- Project manager "VISTA: Visy Oy:n konenäköjärjestelmien suorituskyvyn ja tarkkuuden kehittäminen", 2003.08.01 - 2005.07.31 (**Academy of Finland**).

- Project manager “MIMER: Knowledge Mining, Management and Outlayer Analysis in Large Signal Databases”, 2005.01.01 - 2006.12.31 (**Technology Development Centre of Finland**).
- Project manager “ODEN: Outlier Analysis and Data Mining in Large Signal Databases”, 2007.01.01 - 2009.12.31 (**Technology Development Centre of Finland**).

7. CAREER:

Chairman of the Pattern Recognition Society of Finland, 1992.05.01 - 1995.04.30

Vice chairman of the Pattern Recognition Society of Finland, 1995.05.01 - 1997.04.30

Chairman of the International Association for Pattern Recognition, Workgroup TC3 Machine Learning, 1996.09.01 – 2000.08.31.

Member of the Department Council of the Department of Information Technology, the Helsinki University of Technology, 1995..01.1 – 1997.12.31

Dean of the Department of Information Technology, the Lappeenranta University of Technology,, 1998.08.01 - 1999.12.31.

Member of the Board of the Lappeenranta University of Technology, 1998.08.1 - 1999.12.31

Member of the Department Council of the Department of Information Technology, the Lappeenranta University of Technology, 1998.08.01 – 1999.12..31.

Member of the Department Council of the Department of Information Technology, the Tampere University of Technology, 2005..01.1 – 2007.12.31

Vice Head of the Department of Signal Processing, Tampere University of Technology, 2005.01.01-2008.31.12

Head of the Department of Signal Processing, Tampere University of Technology, 2009.01.01-2010.31.12

Member of the Faculty Council of the Faculty of Information and Computer Technology, the Tampere University of Technology, 2005..01.1 – 2010.12.31

Membership in the Advicatory Board of The Univesity Alliance, 2008.01.08- 2010.31.12