Awards and activities

Prizes and scientific honours received by researchers of the unit

Emeritus Professor Teuvo Kohonen:

- Honorary title of Academician. 2000.

- E.R. Caianiello Award, Italy (SIREN - Italian Association for Neural Networks). 2000.

- IEEE Millennium Medal, USA. 2000.

Academy Professor Erkki Oja:

- IEEE Fellow, USA. 2000.

- Nokia Educational Award, Nokia Foundation. 2001.

Professor Olli Simula:

- IEEE Millennium Medal, USA. 2000.

Professor Juha Karhunen:

- Nokia Educational Award, Nokia Foundation. 2001.

Professor Jaakko Hollmén:

- Dissertation Award of the year 2000, The Finnish Society for Computer Science. 2001.

Dr. Aapo Hyvärinen:

- Nokia Educational Award, Nokia Foundation. 2001.

Dr. Miki Sirola:

- Best Paper Award at 14th Int. Conf. on Systems Science, Wroclaw, Poland, Sept. 11-14, 2001.

Important international positions of trust held by researchers of the unit

Academy Professor Erkki Oja:

- Editorial Board Member:
  IEEE Transactions on Neural Networks (USA) (until 2000)
  Neural Computation (USA)
  Pattern Recognition Letters (The Netherlands)
  Computational Intelligence - CITE (The Netherlands)
  International Journal of Pattern Recognition and and Artificial Intelligence (Singapore)
  International Journal of Computer Research (USA)
  Journal of Natural Computing (The Netherlands).

- International Association for Pattern Recognition (IAPR), USA. Member of the Governing Board, until 2000.

- European Neural Network Society (ENNS), Great Britain. President.

- Advisory Board of the Leiden Centre for Natural Computing, The Netherlands. Expert.

- Advisory Board of Springer Verlag book series on Natural Computing, The Netherlands. Expert.

- Evaluator in filling the academic chairs of professors, Kungliga Tekniska Högskolan, Sweden. 6 chairs: computer systems, human computer interaction, neuroinformatics (2), computer science (2). 2000.

- Evaluator in filling the academic chair of professor, computer science, University of Stockholm, 2001.

- Opponent at the doctoral dissertation of Alexander Ypma, Delft University of Technology, The Netherlands, 2001.

- Plenary talk "Independent components for interpretation and prediction." Symposium on Engineering and Intelligent Systems, Paisley, Scotland, June 27-30, 2000.

- Plenary talk "Machine learning in data mining." 10th Int. PEG Conference (PEG 2001), Tampere, Finland, June 23-26, 2001.

- Invited talk "Analyzing low-level visual features using content-based image retrieval." 7th Int. Conf. on Neural Information Processing, ICONIP2000, Taejon, Korea, Nov. 14-18, 2000.

- Invited talk "Application of adaptive committee classifiers in on-line character recognition." 2nd Int. Conf. on Advances in Pattern Recognition (ICAPR'01), Rio de Janeiro, Brazil, March 11-14, 2001.

- Plenary talk, "Unsupervised learning for data and signal analysis." ISI-2001, Dubai, United Arab Emirates, March 18-22, 2001.

- Tutorial, "Independent component analysis." SCIA-2001, Bergen, Norway, June 11-13, 2001.

- Plenary talk, "Independent component analysis." Norsig 2001, Trondheim, Norway, Oct. 19-20, 2001.

- Plenary talk, "Finding structure in signals, images, and data." 8th Int. Conf. on Neural Information Processing (ICONIP2001), Shanghai, China, Nov. 14-18, 2001.

- Conference Chair and Organizer, 2nd Int. Workshop on Independent Component Analysis and Blind Signal Separation, Helsinki, Finland, June 19-22, 2000

- Honorary Chair, EIS2000, Symposium on Engineering and Intelligent Systems, Paisley, Scotland, June 27-30, 2000.

- Program Co-Chair, ICONIP2000, Int. Conf. on Neural Information Processing, Taejon, Korea, Nov. 14-18, 2000.

- Program Committee Member, Tutorial Chairman, IJCNN2000, Int. Joint Conference on Neural Networks, Como, Italy, July 24-27, 2000.

- Program Committee Member:
  EUSIPCO2000, European Signal Processing Conference, Tampere, Finland, Sept. 4-8, 2000
  IEEE Int. Workshop on Biologically Motivated Computer Vision, Seoul, Korea, May 15-17, 2000
  Int. Conf. on Artificial Neural Networks (ICANN'01), Vienna, Austria, Aug. 21-25, 2001
  3rd Int. Conf. on Independent Component Analysis and Signal Separation (ICA2001), San Diego, Calif., USA, Dec. 9-13, 2001
  Int. Conf. on Neural Information Processing (ICONIP2001), Shanghai, China, Nov. 14-18, 2001
  15th European Conf. on Circuit Theory and Design, Espoo, Finland, Aug. 28-31, 2001
  Int. Conf. on Computational Intelligence for Modelling, Control and Automation, Las Vegas, USA, July 9-11, 2001
  Workshop on Self-Organizing Maps, Lincoln, UK, June 13-15, 2001.

Academician Teuvo Kohonen:

- Editorial Board Member:
  Neural Computation (USA)
  Connection Science (Great Britain)
  Journal of Intelligent Systems (Great Britain).

- Editor, Springer Series in Information Sciences.

- Honorary Editor, International Journal of Computer Research (USA).

- Evaluator in filling the academic chair of Professor, University of Texas at Austin, Computer Science Department, 2001.

- Plenary talk "New lines in the study of self-organizing maps." IIZUKA 2000, 6th Int. Conf. on Soft Computing, Iizuka, Japan, Oct. 1-4, 2000.

- Plenary talk "Self-organizing maps of massive document collections." Int. Joint Conf. on Neural Networks, IJCNN2000, Como, Italy, July 24-27, 2000.

- Plenary talk "A look into the self-organizing maps." 2nd Int. ICSC Symposium on Neural Computation, NC2000, Berlin, Germany, May 23-26, 2000.

- Plenary talk "An unsupervised learning method that produces organized representation from real information." ANNIMAB-1 Conference, Gothenburg, Sweden, May 13-16, 2000.

- Plenary talk "A projection tool for exploration of large datbases." 7th Int. Workshop PASE2000, Leuven, Belgium, April 2-5, 2000.

- Tutorial "Self-organizing maps." EUSIPCO2000, European Signal Processing Conference, Tampere, Finland, Sept. 4-8, 2000.

- Honorary Chairman, IIZUKA 2000, 6th Int. Conf. on Soft Computing, Iizuka, Japan, Oct. 1-4, 2000.

- Special guest lecture "The SOM for large amounts of symbolic data." Workshop on Self-Organizing Maps (WSOM'01), Lincoln, UK, June 13-15, 2001.

- Plenary talk "Mining and mapping biochemical data from the Internet." Int. Joint Conf. on Neural Networks (IJCNN'01), Washington D.C., USA, July 15-19, 2001.

- Plenary talk "Evolution of ideas for self-organizing neural networks." Asian Pasific Symposium on Life Science and Systems Engineering, Kitakyushu, Japan, July 25-26, 2001.

- Plenary talk "Self-organizing neural networks." European Conference on Circuit Theory and Design, Espoo, Finland, Aug. 28-31, 2001.

Professor Juha Karhunen:

- Editorial Board Member:
Neural Processing Letters (The Netherlands)
Neurocomputing (USA).

- Editor of the Proceedings of the 2nd International Workshop on Independent Component Analysis and Blind Signal Separation, Helsinki, Finland, June 19-22, 2000.

- Invited talk "Blind separation methods for CDMA Communications." Workshop on Machines that Learn, Snowbird, Utah, April 4-7, 2000.

- Invited talk "Nonlinear static and dynamic blind source separation using ensemble learning." Int. Joint Conf. on Neural Networks (IJCNN'01), Washington D.C., USA, July 15-19, 2001.

- Invited lecture "Nonlinear blind source separation and independent component analysis", German national graduate school at the University of Regensburg, Regensburg, Germany, Nov. 16, 2001.

- Program Committee Member:
2nd International Workshop on Independent Component Analysis and Blind Signal Separation, Helsinki, Finland, June 19-22, 2000
EUSIPCO2000, European Signal Processing Conference, Tampere, Finland, Sept. 4-8, 2000
Int. Conf. on Advances in Intelligent Systems: Theory and Applications,

AISTA2000, Canberra, Australia, Feb. 2000
European Symposium on Neural Networks, ESANN2000, Bruges, Belgium, April 26-28, 2000
Int. Conf. on Artificial Neural Networks in Medicine and Biology, ANNIMAB-1, Gothenburg, Sweden, May 13-16, 2000
European Symposium on Artificial Neural Networks (ESANN2001), Bruges, Belgium, April 25-27, 2001.

- Session Chairman and Program Committee Member:
  Int. Workshop on Artificial Neural Networks (IWANN'01), Granada, Spain, June 13-15, 2001
  3rd Int. Conf. on Independent Component Analysis and Signal Separation (ICA2001), San Diego, Calif., USA, Dec. 9-13, 2001.

Professor Olli Simula:

- Editorial Board Member:
  International Journal of Knowledge-Based Intelligent Engineering Systems (Australia).

- European Neural Network Society (ENNS), Great Britain. Governing Board Member.

- IEEE - Computer Chapter (C-16), Finland. Chairman.

- Invited talk "Models from data analysis of industrial processes and telecommunication systems." Automazione'2001, Ancona, Italy, Nov. 22-23, 2001.

- Program Committee Member, Session Chairman, EUSIPCO2000, European Signal Processing Conference, Tampere, Finland, Sept. 4-8, 2000.

- Conference Co-Chair, European Conference on Circuit Theory and Design, Espoo, Finland, Aug. 28-31, 2001.

- Session Chairman, Program Committee Member, Int. Conf. on Artificial Neural Networks, Vienna, Austria, Aug. 21-25, 2001.

- Program Committee Member, URSI XXVI Convention on Radio Science, Tampere, Finland, Oct. 23-24, 2001.

Professor Heikki Mannila:

- Editor-in-Chief, Data Mining and Knowledge Discovery.

- Associate Editor, ACM Transactions on Internet Technology, 2001–.

- Action Editor, Journal of Machine Learning Research, 2001–.

- Member of Technical Advisory Board, Verity Inc.

- SIGKDD Chair's Advisory Council, –2000.

- SIGKDD Awards Chair, 2000.

- PKDD Steering Committee, 2001–.

- Program Committee Member:
  4th European Symposium on Principles of Data Mining and Knowledge Discovery (PKDD 2000)
  6th SIGKDD Conf. on Data Mining and Knowledge Discovery (KDD'00)
  20th ACM SIGACT-SIGART-SIGMOD Symposium on Principles of Database and Knowledgebase Systems (PODS'01)
  7th SIGKDD Conf. on Data Mining and Knowledge Discovery (KDD'01)
  18th Int. Conf. on Machine Learning (ICML-2001) (Area Chair)
  17th Int. Joint Conf. on Artificial Intelligence (IJCAI'01)
  5th European Symposium on Principles of Data Mining and Knowledge Discovery (PKDD 2001).

Professor Jaakko Hollmén:

- Invited talk "Self-organizing map: Introduction to methods and applications." Finnish-Taiwanese Workshop on Digital Communications, Espoo, Finland, May 14, 2001.

Dr. Samuel Kaski:

- Plenary talk "Learning metrics for exploratory data analysis." 2001 IEEE Signal Processing Society Workshop, Neural Networks for Signal Processing XI, Falmouth, Massach., USA, Sept. 10-12, 2001.

- Invited talk "SOM-based exploratory analysis of gene expression data." Workshop on Self-Organizing Maps (WSOM'01), Lincoln, UK, June 13-15, 2001.

- Session Chairman:
  2nd Int. Conf. on Intelligent Data Engineering and Automated Learning, Hong Kong, Dec. 13-15, 2000
  The 2001 IEEE Workshop on Neural Networks for Signal Processing, Falmouth, MA, USA, Sept. 10-12, 2001.

- Session Chairman and Program Committee Member, Workshop on Self-Organizing Maps (WSOM'01), Lincoln, UK, June 13-15, 2001.

- Program Committee Member:
  Int. Symposium on Intelligent Data Engineering and Automated Learning, IDEAL 2000, Hong Kong, Dec. 13-15, 2000
  Finnish Conf. on Artificial Intelligence, STeP 2000, Espoo, Finland, Aug. 28-31, 2000
  2nd Int. Conf. on Data Warehousing and Knowledge Discovery, DaWak 2000, Greenwich, UK, Sept. 4-6, 2000
  Int. Conf. on Artificial Neural Networks in Medicine and Biology, ANNIMAB-1, Gothenburg, Sweden, May 13-16, 2000
  Third Int. Conf. on Data Warehousing and Knowledge Discovery, Munich, Germany, Sept. 5-7, 2001.

Dr. Mikko Kurimo:

- Tutorial "Automatic reoognition of auditory speech." EUSIPCO'2000, Tampere, Finland, Sept. 5-8, 2000.

- Scientific Committee Member, 7th European Conference on Speech Communication and Technology, Eurospeech 2001, Aalborg, Denmark, Sept. 3-7, 2001.

Dr. Aapo Hyvärinen:

- Editor-in-Charge, International Journal of Neural Systems (Singapore).

- Invited talk "Complexity pursuit: Using both nongaussianity and autocorrelations for signal separation." Int. Conf on Neural Information Processing, Taejon, Korea, Nov. 14-18, 2000.

- Invited talk "Advances in independent component analysis." RIKEN Brain Science Institute seminar, Japan, Nov. 9, 2000

- Panel in Int. Joint Conf. on Neural Networks, Como, Italy, July 24-27, 2000. Panel topic: "Unsupervised learning, statistics, and signal separation."

- Tutorial "Independent component analysis, blind source separation, and natural image statistics." The Copenhagen Summer School in Computer Vision, Denmark, Sept. 4-8, 2000.

- Invited talk "Independent component analysis and projection pursuit." Int. Meeting of the Psychometric Society, Osaka, Japan, July 15-19, 2001.

- Invited talk "Independent component analysis: A tutorial." Int. Conf. on Artificial Neural Networks, Vienna, Austria, August 12-14, 2001.

- Publicity Chair, Int. Workshop on Independent Component Analysis and Blind Source Separation (ICA 2000), Helsinki, Finland, June 19-22, 2000.

- Session Chair, Int. Workshop on Independent Component Analysis and Blind Source Separation (ICA 2000), Helsinki, Finland, June 19-22, 2000.

- Main Organizer and Chair of Special Session "Models of natural image statistics." Int. Conf. on Neural Information Processing, Taejon, Korea, Nov. 14-18, 2000.

- Program Committee Member, Int. Workshop on Independent Component Analysis and Blind Source Separation, San Diego, CA, USA, Dec. 9-12, 2001.

Dr. Miki Sirola:

- IASTED, Technical Committee on Modelling and Simulation, Canada. Member.

- Session Chair:
  IASTED Int. Conf. on Modelling, Identification and Control, Innsbruck, Austria, Feb. 14-17, 2000
  IASTED Int. Conf. on Modelling, Identification and Control, Innsbruck, Austria, Feb. 19-22, 2001.

- Program Committee Member:
  IASTED Int. Conf. on Control and Applications, Cancun, Mexico, May 24-27, 2000
  IASTED Int. Conf. on Control and Applications, Banff, Canada, June 27-29, 2001.

Dr. Jukka Iivarinen:

- Treasurer, Int. Workshop on Independent Component Analysis and Blind Source Separation (ICA 2000), Helsinki, Finland, June 19-22, 2000.

- Session Chair and Program Committee Member, Finnish Conf. on Artificial Intelligence, STeP 2000, Espoo, Finland, Aug. 28-31, 2000.

- Session Chair, IASTED Int. Conf. on Visualization, Imaging, and Image Processing, Marbella, Spain, Sept. 3-5, 2001.

Dr. Krista Lagus:

- Invited talk, "Studying similarities in term usage with self-organizing maps." NordTerm 2001, Tuusula, Finland, June 13-16, 2001.

M.Sc. Antti Honkela:

- Invited talk "An ensemble learning approach to nonlinear independent component analysis." European Conf. on Circuit Theory and Design (ECCTD'01), Espoo, Finland, August 28-31, 2001.

M.Sc. Patrik Hoyer:

- Invited talk "Topographic maps from sparse coding." CNS'2001 Workshop 'Modeling cortical map development' organized by J.A. Bednar and R. Miikkulainen, San Francisco, Calif., USA, July 5, 2001.

Important domestic positions of trust held by researchers of the unit

Academy Professor Erkki Oja:

- The Finnish Academy of Science and Letters. The group of mathematics and computer science. Vice Chairman.

- Nokia Foundation. Member of the Governing Board.

- Alfred Kordelin Foundation. Member of the Governing Board.

- Opponent at the doctoral dissertation of Samuli Visuri, HUT, 2001.

Academician Teuvo Kohonen:

- Studia Generalia lecture "Can machines learn autonomously." University of Helsinki, 2000.

Professor Olli Simula:

- Evaluator in filling the academic chairs of professors, University of Jyväskylä. 2 chairs on telecommunications, 2001.

Professor Juha Karhunen:

- Opponent at the doctoral dissertation of Harri Saarnisaari, University of Oulu, 2000.

- Invited talk "Riippumattomien komponenttien analyysi ja informaatioteoreettinen oppiminen" (in Finnish). The 25th anniversary seminar of the Pattern Recognition Society of Finland at Mekrijärvi, Ilomantsi, Finland, October 22, 2001.

Professor Jaakko Hollmén:

- Invited talk "Käyttäjien profilointi ja luokittelu väärinkäytösten paljastamiseksi matkapuhelinverkossa" (in Finnish). The Computer Science Days, Turku, Finland, May 21-22, 2001.

Dr. Samuel Kaski:

- Pattern Recognition Society of Finland. Member of the Governing Board.

- Finnish Artificial Intelligence Society. Member of the Governing Board.

- Opponent at the doctoral dissertation of Jani Lahnajärvi, Tampere University of Technology, 2001.

Dr. Jukka Iivarinen:

- Pattern Recognition Society of Finland. Chairman.

Dr. Jorma Laaksonen:

- Opponent at the doctoral dissertation of Marius Tico, Tampere University of Technology, 2001.

Dr. Krista Lagus:

- Finnish Cognitive Linguistics Association. Member of the Governing Board.

Other activities

Academy Professor Erkki Oja:

- interview for the science series program Prisma, TV1, in April, 2000.

- interview for Akatemia Apropos -journal No. 1/2000.

Professor Olli Simula:

- interview on subjects "International education" and "Relationships between industry/business and higher education" for International French Radio, FRI, program Magazine multimédia, in Paris, France, on April 27, 2001.

Professor Samuel Kaski:

- interview on subject "bioinformatics" for the science series program Prisma, TV1, on Nov. 22, 2000.

Research visits abroad by researchers of the unit; 2 weeks or more

- Academy Professor Erkki Oja, Université Paris, I - Pantheon Sorbonne, France, April–May 2001.

- Dr. Mikko Kurimo, IDIAP, Switzerland, Jan.–May 2000.

- Dr. Jaakko Hollmén, Siemens Corporation Research and Development, Germany, Jan.–Aug. 2000.

- M.Sc. Vesa Siivola, IDIAP, Switzerland, Jan.–March 2000.

- Dr. Ricardo Vigário, GMD, Germany, Oct. 2000–Dec. 2001.

- Dr. Aapo Hyvärinen, RIKEN Brain Science Institute, Japan, Nov. 2000 (2 wks), April–May 2001 (6 wks), and Nov.–Dec. 2001 (2 wks).

- Lic.Sc. Razvan Cristescu, EPFL, Switzerland, Jan.–Oct. 2000.

- M.Sc. Tapani Raiko, Albert-Ludwigs-Universität, Freiburg, Germany, Oct. 2001–

- Dr. Aapo Hyvärinen, Technische Universität Berlin, Germany, Oct. 2001.

Research visits by foreign researchers to the unit; 2 weeks or more

- Dr. Adrian Flanagan, EPFL, Switzerland, Jan.–Dec. 2000.

- Lic.Sc. Simona Mălăroiu, University of Bucharest, Romania, Jan.–Aug. 2000.

- M.Sc. Karthikesh Raju, Universität Ulm, Germany, Jan.–March 2000.

- Prof. Mark Girolami, University of Paisley, Scotland, June–Nov. 2000.

- Dr. Ata Kaban, University of Paisley, Scotland, June–Nov. 2000.

- M.Sc. Xavier Giannakopoulos, IDSIA, Switzerland, Feb.–March 2000.

- M.Sc. Artur Bykowski, INSA - Lyon, France, Jan.–June 2001

- M.Sc. Maria Funaro, University of Salerno, Italy, Feb.–June 2001.

- Dr. Diane Litman, AT&T Research Laboratories, USA, March–May, 2001 (8 wks).

- M.Sc. Hervé Le Borgne, National Polytechnical Institute of Grenoble, Signal and Image Laboratory, France, Sept.–Oct. 2001 (6 wks).

- Dr. Ignacio Diaz, Universidad de Oviedo, Gijon, Spain, June–Dec. 2001.