Awards and activities

Prizes and scientific honours received by researchers of the unit

Prof. Erkki Oja:

- Pierre Devijver Award, International Association for Pattern Recognition (IAPR), USA. 2004.

- Unsupervised learning ICA pioneer award, SPIE defence and security symposium, USA. 2004.

Dr. Mikko Kurimo:

- International Short Visit Fellowship Award, The Royal Society, U.K. 2004.

Dr. Jorma Laaksonen, M.Sc. Ville Viitaniemi, Dr. Markus Koskela:

- Best CIS Paper Award at the International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Finland. 2005.

M.Sc. Matti Pöllä and Professor Timo Honkela:

- Best Paper Award (soft computing, computational intelligence, fuzzy systems, neural networks, learning) at the Seventh International Conference on Computing Anticipatory Systems, Belgium. 2005.

Important international positions of trust held by researchers of the unit

Academy Professor Erkki Oja:

- Editorial Board Member:
  Neural Computation, USA
  International Journal of Pattern Recognition and Artificial Intelligence, Singapore
  Natural Computing–An International Journal, The Netherlands.

- President of European Neural Network Society (ENNS), The Netherlands.

- Evaluator:
  EU 6th Framework Program, Belgium, 2004
  Deutsche Forschungsgemeinshaft DFG, Germany, 2004
  Norges Forskningsråd, Norway, 2004.

- Governing Board Member of International Neural Network Society (INNS), USA.

- Opponent at the doctoral dissertation of Jacob Verbeek, University of Amsterdam, The Netherlands, 2004.

- Opponent at the doctoral dissertation of Robert Jenssen, University of Tromsö, Norway, 2005.

- Opponent at the doctoral dissertation of Hamed Hamid Muhammed, Uppsala University, Sweden, 2005.

- Honorary Chairman of Engineering of Intelligent Systems (EIS) conference, Madeira, Portugal, Feb. 29–Mar. 2, 2004.

- Invited talk "Applications of Independent Component Analysis." International Conference on Neural Information Processing (ICONIP'04), Calcutta, India, Nov. 22-25, 2004.

- Plenary talk "Blind Source Separation: Neural Net Principles and Applications." SPIE Defense and Security Symposium, Orlando, USA, Apr. 12-16, 2004.

- Plenary talk "Finding Clusters and Components by Unsupervised Learning." IAPR International Workshop on Statistical Pattern Recognition (SPR2004), Lisbon, Portugal, Aug. 18-20, 2004.

- Plenary talk "Patterns, Clusters, and Components - What Data is Made of?" International Joint Conference on Neural Networks (IJCNN'04), Budapest, Hungary, Jul. 26-29, 2004.

- Plenary talk "Independent Component Analysis: Algorithms and Applications." International Joint Conference on Robust Statistics (ICORS), Jyväskylä, Finland, Jun. 14, 2005.

- Plenary talk "Finding Hidden Factors in Large Spatiotemporal Data Sets." 2005 International Conference on Neural Networks and Brain, Beijing, China, Oct. 13 - 15, 2005.

- Plenary talk "Finding Hidden Factors in Large Spatiotemporal Data Sets." CERCIA Workshop on Computational Intelligence, Birmingham, UK, Nov. 15–16, 2005.

- Plenary talk "Finding Hidden Factors in Large Spatiotemporal Data Sets." DEST Workshop on Machine Learning for Applications in Sensor Networks, Int. Conf. on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP), Melbourne, Australia, Dec. 5–8, 2005.

- Tutorial talk "Independent Component Analysis: Theory and Applications." 14th Scandinavian Conference on Image Analysis (SCIA), Joensuu, Finland, Jun. 19, 2005.

- Conference co-chair of International Conference on Neural Information Processing (ICONIP), Calcutta, India, Nov. 22–25, 2004.

- Session Chairman and Program Committee Member:
  5th Workshop on Self-Organizing Maps (WSOM 05), Paris, France, Sep. 5–8, 2005
  International Conference on Artificial Neural Networks (ICANN 2005), Warsaw, Poland, Sep. 11–15, 2005.

- Program Committee Member:
  International Joint Conference on Neural Networks (IJCNN), Budapest, Hungary, Jul. 25–29, 2004
  European Symposium on Artificial Neural Networks (ESANN), Bruges, Belgium, Apr. 28–30, 2004
  International Conference on Pattern Recognition (ICPR), Cambridge, U.K., Aug. 23–26, 2004
  IEEE Workshop on Machine Learning for Signal Processing (MLSP), Sao Luis, Brazil, Sep. 29–Oct. 1, 2004
  5th International Conference on Independent Component Analysis and Blind Signal Separation (ICA), Granada, Spain, Sep. 22–24, 2004.

- Co-Editor
  Artificial Neural Networks: Biological Inspirations, Lecture Notes in Computer Science 3696, Berlin, Germany, 2005
  Artificial Neural Networks: Formal Models and Their Applications, Lecture Notes in Computer Science 3697, Berlin, Germany, 2005.

Professor Olli Simula:

- Executive Board Member of European Neural Network Society (ENNS), The Netherlands.

- Chairman of the Finnish IEEE–Computer Chapter.

- Scientific Council Member of Institute Eurecom, France.

- Program Committee Member:
  International Joint Conference on Neural Networks (IJCNN), Budapest, Hungary, Jul. 25–29, 2004.
  5th Workshop on Self-Organizing Maps (WSOM 05), Paris, France, Sep. 5–8, 2005
  International Conference on Artificial Neural Networks (ICANN 2005), Warsaw, Poland, Sep. 11–15, 2005.

Professor Juha Karhunen:

- Editorial Board Member of Neurocomputing, The Netherlands.

- Program Committee Member:
  5th International Conference on Independent Component Analysis and Blind Signal Separation (ICA), Granada, Spain, Sep. 22–24, 2004
  13th European Symposium on Artificial Neural Networks (ESANN'2005), Bruges, Belgium, Apr. 27–29, 2005.

Professor Heikki Mannila:

- Editor-in-Chief, Data Mining and Knowledge Discovery, USA, 2004.

- Area Editor, IEEE Transactions on Knowledge and Data Engineering, USA, 2004.

- Co-Editor, *Constraint–based mining and inductive databases*, Lecture Notes in Computer Science 3848, Berlin, Germany, 2005.

- Member of Steering Committee, Data Mining and Knowledge Discovery, USA, 2005.

- Associate Editor, ACM Transactions on Database Systems, USA, 2005.

- Member of Editorial Board, ACM Transactions on Knowledge Discovery in Data, USA, 2005.

- Member of Technical Advisory Board, Verity Inc., USA, 2004.

- Member of ESFRI Physical Sciences and Engineering Roadmap Working Group, Luxembourg, 2005.

- Chairman of ESFRI Expert Group on Computation and Data Treatment, Luxembourg, 2005.

- Member of PKDD Steering Committee, USA, 2004.

- Program Committee Member, Tenth SIGKDD Conference on Data Mining and Knowledge Discovery (KDD'04), Seattle, Washington, USA, 2004.

- Member of ACM SIGKDD Curriculum Committee, USA, 2005.

Professor Jaakko Hollmén:

- Member of the Management Board in the Knowledge Discovery Network of Excellence (KDNet) supported by EU Project No. IST-2001-33086.

- Program Committee Member:
  16th European Conference on Artificial Intelligence (ECAI 2004), Valencia, Spain, Aug. 22–27 2004
  7th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2005), Copenhagen, Denmark, Aug. 22–26, 2005.

Professor Timo Honkela:

- Representative of Finland of International Federation on Information Processing (IFIP), TC12 (Artificial Intelligence), Austria, 2004.

- Chairman of International Federation on Information Processing (IFIP), WG12.1 (Knowledge Representation and Reasoning), Austria.

- EU Commission, Expert in FP7 preparations in the area of cognitive systems, Belgium, 2005.

- Opponent at the doctoral dissertation of Apostolos A. Georgakis, Umeå University, Sweden, 2004.

- Invited talk "Translation Within and Between Languages." European Conference on Computing and Philosophy (E-CAP'05), Västerås, Sweden, Jun. 4, 2005.

Academician Teuvo Kohonen:

- Plenary talk "Pointwise Organizing Projections." 5th Workshop On Self-Organizing Maps (WSOM'05), Paris, France, Sep. 5-8, 2005.

Professor Samuel Kaski:

- Editorial Board Member:
  International Journal of Neural Systems, Singapore
  Intelligent Data Analysis, The Netherlands
  Cognitive Neurodynamics, Germany, 2005.

- Member of the Machine Learning for Signal Processing Technical Committee of the IEEE Signal Processing Society, USA, 2004.

- Referee of Fund for Scientific Research-Flanders, Belgium, 2004.

- Referee of Engineering and Physical Sciences Research Council, U.K., 2004.

- Referee of Netherlands Organization for Scientific Research, The Netherlands, 2004.

- Opponent at the doctoral dissertation of Catherine Aaron, Universite de Paris 1, France, 2005.

- Opponent at the doctoral dissertation of Shaun Mahony, National University of Ireland, Ireland, 2005.

- Plenary talk "From Learning Metrics Towards Dependency Exploration." 5th Workshop On Self-Organizing Maps (WSOM'05), Paris, France, Sep. 5-8, 2005.

- Invited talk "Proactive Information Retrieval by Monitoring Eye Movements." BrainIT, The Second Int. Conf. on Brain-Inspired Information Technology, Kyushu Institute of Technology, Kitakuyshu, Japan, Oct. 7-9, 2005.

- Chairman and Program Committee Member in NIPS 2005 Workshop on Machine Learning for Implicit Feedback and User Modeling, Whistler, Canada, Dec. 10, 2005.

- Session Chairman in:
  IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2005), Philadelphia, USA, Mar. 18–23, 2005
  5th Workshop on Self-Organizing Maps (WSOM 05), Paris, France, Sep. 5–8, 2005.

- Program Committee Member:
  New Trends in Intelligent Information Processing and Web Mining (IIPWM'05), Zakopane, Poland, Jun. 13–15, 2005
  2005 Atlantic Web Intelligence Conference (AWIC'05), Lodz, Poland, Jun. 6–9, 2005

IEEE International Workshop on Machine Learning for Signal Processing (MLSP'05), Mystic, Connecticut, USA, Sep. 28–30, 2005

The 2005 IEEE/WIC International Conference on Web Intelligence (WI 2005), Compiègne, France, Sep. 19–22, 2005

International Conference on Natural Computation (ICNC'05), Hunan, China, Aug. 27–29, 2005

4th International Workshop on Web Semantics (WebS 2005), Copenhagen, Denmark, Aug. 22–26, 2005

Workshop at UM'05, Machine Learning for User Modeling: Challenges, Edingburgh, U.K., Jul. 23–29, 2005

5th Workshop on Self-Organizing Maps (WSOM 05), Paris, France, Sep. 5–8, 2005

International Symposium on Intelligent Data Engineering and Automated Learning (IDEAL'05), Brisbane, Australia, Jul. 6–8, 2005

European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD'05), Porto, Portugal, Oct. 3–7, 2005.

Dr. Jukka Iivarinen:

- Program Committee Member:
  International Conference on Artificial Intelligence and Soft Computing, Marbella, Spain, Sep. 1–3, 2004
  International Conference on Computational Intelligence, Calgary, Canada, Jul. 4–6, 2005.

Dr. Mikko Kurimo:

- Session Chairman in XII. European Signal Processing Conference EUSIPCO, Vienna, Austria, Sep. 6–10, 2004.

Dr. Ville Könönen:

- Session Chairman and Program Committee Member of the Workshop 9 in the 9th European Conference on Machine Learning (ECML 2005), Porto, Portugal, Oct. 7–9, 2005.

Dr. Amaury Lendasse:

- Invited talk "Time Series Benchmarking Competition: The CATS Benchmark." International Joint Conference on Neural Networks (IJCNN'04), Budapest, Hungary, Jul. 26–29, 2004.

Dr. Miki Sirola:

- Session Chairman and Program Committee Member:
  IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS'2005), Sofia, Bulgaria, Sep. 5–7, 2005.

- Program Committee Member:
  International Conference on Modelling and Simulation, Marina del Ray, USA, Mar. 1–3, 2004

International Conference on Applied Simulation and Modelling, Rhodes, Greece, Jun. 28–30, 2004

International Conference on Intelligent Systems and Control, Honolulu, Hawaii, Aug. 23–25, 2004

International Conference on Neural Information Processing (ICONIP), Calcutta, India, Nov. 22–25, 2004

International Conference on Modeling, Identification and Control, Grindelwald, Switzerland, Feb. 22-25, 2005

International Conference on Modelling and Simulation, Cancun, Mexico, May. 18–20, 2005

International Conference on Modelling, Identification and Control, Innsbruck, Austria, Feb. 16–18, 2005

International Conference on Applied Simulation and Modelling, Benalmádena, Spain, Jun. 15–17, 2005

International Conference on Computational Intelligence, Calgary, Canada, Jul. 4–6, 2005

International Conference on Intelligent Systems and Control, Cambridge, USA, Oct. 31–Nov. 2, 2005.

Dr. Ricardo Vigário:

- Plenary talk "Search for Independence in Biomedical Systems." 2nd Int. Conf. on Advances in Medical Signal and Information Processing (MEDSIP'04), Malta, Sep. 5-8, 2004.

- Invited talk "Single Trial Denoising Source Separation of Event-Related Fields" co-authored by Jaakko Särelä. Tandem Workshop on "Advanced Methods of Electrophysiological Signal Analysis" & "Symbolic Grounding? Dynamical Systems Approaches in Language", Potsdam, Germany, Mar. 2005.

- Program Committee Member:
  5th International Conference on Independent Component Analysis and Blind Signal Separation (ICA), Granada, Spain, Sep. 22–24, 2004
  2nd International Conference on Computational Intelligence in Medicine and Healthcare (CIMED'05), Portugal, Jul. 2005.

M.Sc. Mika Sulkava:

- Invited talk: "Laboratory Quality Affects the Ability to Detect Temporal Changes in Foliar Element Concentrations." 9th ICP Forest Expert Panel on Foliar Analysis, Dublin, Ireland, Jun. 20, 2005. Part of International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests of UN/ECE (ICP Forests) in cooperation with the EU.

Important domestic positions of trust held by researchers of the unit

Academy Professor Erkki Oja:

- Evaluator in filling the academic chairs of professors:
  computer science, University of Joensuu, 2004
  mathematics, Tampere University of Technology, 2005.

- Session Chairman in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Professor Olli Simula:

- Evaluator in filling the academic chairs of professors:
  computer engineering, University of Jyväskylä, 2004
  electronics, Tampere University of Technology, 2004.

- Chairman of the Organizing Committee in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

- Panel Moderator in 2005 IEEE Mid-Summer Workshop on Soft-Computing in Industrial Applications (SMCia 05), Espoo, Jun. 28–30, 2005.

Professor Timo Honkela:

- Vice Chairman, Finnish Cognitive Linguistics Association, 2004.

- Chairman of the Program Committee in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

- Editor Board Member, journal Puhe ja kieli (Speech and Language), 2005.

- Opponent at the doctoral dissertation of Wanjiku Ng'ang'a, University of Helsinki, 2005.

Professor Samuel Kaski:

- Session Chairman and Program Committee Member in Symposium on Knowledge Representation in Bioinformatics (KRBIO'05), Espoo, Jun. 15, 2005.

- Co-Editor, Proceedings of Symposium on Knowledge Representation in Bioinformatics (KRBIO 05), 2005.

- Opponent at the doctoral dissertation of Harri Lähdesmäki, Tampere University of Technology, 2005.

- Opponent at the doctoral dissertation of Mantao Xu, University of Joensuu, 2005.

Professor Jaakko Hollmén:

- Opponent at the doctoral dissertation of Tomas Eklund, Åbo Akademi, 2004.

- Opponent at the doctoral dissertation of Kari Vasko, University of Helsinki, 2004.

- Co-Editor, Proceedings of Symposium on Knowledge Representation in Bioinformatics (KRBIO 05), 2005.

- Program Committee Member in Symposium on Knowledge Representation in Bioinformatics (KRBIO 05), 2005.

Dr. Jorma Laaksonen:

- Finnish Artificial Intelligence Society. Chairman of the dictionary committee.

Dr. Jukka Iivarinen:

- Pattern Recognition Society of Finland. Vice chairman.

Dr. Ricardo Vigário:

- Session Chairman in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Dr. Ann Russell:

- Session Chairman in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Petri Saarikko:

- Program Committee Member in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

M.Sc. Matti Pöllä:

- Program Committee Member in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Dr. Krista Lagus:

- Invited talk "Miten hermoverkkomallit selittävät kielen oppimista." Puheen ja kielen tutkimuksen yhdistyksen päivät, March 17–18, 2005, Finland.

- Session Chairman and Program Committee Member in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Dr. Ville Könönen:

- Session Chairman and Program Committee Member in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

M.Sc. Tiina Lindh–Knuutila:

- Secretary of the Program Committee in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Dr. Mikko Kurimo:

- Session Chairman in International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Jun. 15–17, 2005.

Dr. Kimmo Raivio:

- Opponent at the doctoral dissertation of Eero Wallenius, University of Jyväskylä, 2005.

M.Sc. Tapani Raiko:

- Chairman of Finnish Artificial Intelligence Society, 2005.

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

- Dr. Ella Bingham, University of Birmingham, Sep. 2004–Dec. 2004.

- M.Sc. Mathias Creutz, International Computer Science Institute, USA, Nov. 2005–.

- M.Sc. Markus Harva, University of Birmingham, Jun. 2004–Aug. 2004; Mar. 2005–Apr. 2005.

- Dr. Samuel Kaski, Université Paris 1, France, June 2004.

- Dr. Markus Koskela, Dublin City University, Ireland, Nov. 2005–.

- Dr. Mikko Kurimo, University of Edinburgh, U.K., Jun. 2004–Jul. 2004.

- M.Sc. Merja Oja, Uppsala University, Feb. 2004–Mar. 2004.

- Lic.Sc. Anne Patrikainen, University of Washington, USA, Feb. 2004–Oct. 2004; Jan. 2005–Jun. 2005.

- M.Sc. Salla Ruosaari, University Medical Center Hamburg–Eppendorf, Germany, May, 2005 (2 wks).

- Dr. Harri Valpola, University of Zurich, Switzerland, Sep. 2003–Oct. 2004.

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

- Milenko Adamovic, University of Banjaluka, Bosnia-Herzegovina, Jun. 2005–Jul. 2005.

- Mariana Almeida, Technical University of Lisbon, Portugal, Feb. 2005–Jul. 2005.

- M.Sc. Ebru Arisoy, Bogazici University, Turkey, Jul. 2005–Aug. 2005.

- Dr. Patrik Bas, Institut National Polytechnique de Grenoble, France, Sep. 2004–.

- B.Sc. Phani Sudheer Bhutadi, National Institute of Technology, India, Jan. 2004–May 2005.

- Dr. Sergey Borisov, Moscow State University, Russia, Jun. 2004–Nov. 2005.

- M.Sc. Basilio Calderone, Scuola Normale Superiore, Italy, Feb. 2005–Jul. 2005.

- M.Sc. Francesco Corona, Universita degli Studi di Cagliari, Italy, Jan. 2005–Jun. 2005; Nov. 2005–Dec. 2005.

- Prof. César Fernández, Miguel Hernandez University, Spain, Aug. 2004–Nov. 2004.

- Dr. Robert Gwadera, Purdue University, USA, Sep. 2005–.

- Milan Jurik, Czech Technical University, Czech Republic, Sep. 2004–Dec. 2004.

- Prof. Sami Khuri, San José State University, USA, Apr. 2004–Jun. 2004.

- M.Sc. Jan Kriz, Technical University Liberec, Czech Republic, Sep. 2005–.

- Dr. Amaury Lendasse, Université Catholique de Louvain, Belgium, Jan. 2004–.

- Prof. Nobuo Matsuda, Oshima College of Maritime Technology, Japan, Nov. 2005–.

- M.Sc. Nasser Mourad, South Valley University, Egypt, Oct. 2003–Jan. 2004.

- Prof. Bryan Pellom, University of Colorado at Boulder, USA, Aug. 2004–Dec. 2004.

- B.Sc. Nima Reyhani, University of Tehran, Iran, Oct. 2004–.

- Dr. Ann Russel, University of Toronto, Canada, May 2005–Dec. 2005.

- B.Sc. Jan-Hendrik Schleimer, University of Tübingen, Germany, Aug. 2003–.

Other activities

Professor Olli Simula:

- interview on subject "ICT education at Finnish universities" for the journal IT-Viikko/IT News, Nov. 2005.

Professor Samuel Kaski:

- interview for Aamulehti (one of the main Finnish newspapers) on data mining, May 13, 2004.

- article in Verkkouutiset (web newspaper) about genomics data mining, www.verkkouutiset.fi, May 28, 2004, "Geenitietoa louhitaan oppivilla menetelmillä."

Dr. Mikko Kurimo:

- interview on "How does a machine understand speech?" for the science series program Prisma Studio, YLE TV1, March 31, 2004.

Dr. Jorma Laaksonen:

- appearance in popular science TV program on biometric person identification (in Finnish), Prisma Studio, YLE TV1, Feb. 2005.

Dr. Ella Bingham, Dr. Ricardo Vigário, M.Sc. Jarkko Ylipaavalniemi:

- interview on subject "independent component analysis" for the journal Tekniikka & Talous, May 26, 2005, p. 44.

Dr. Jaakko Särelä, M.Sc. Alexander Ilin, Dr. Harri Valpola (HUT Computational Eng. Lab.):

- interview on "denoising source separation and its applications to climatogy" was published in several national newspapers and radio programmes, June 2005.