Helsinki Institute for Information Technology HIIT

Facts and Figures 2011

Appendix to the Annual Report

Ella Bingham (ed.)

www.hiit.fi

Contact Information

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Kumpula Site

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A. Teaching and research visits

A.1. Courses given by HIIT researchers at participating departments

Spring 2011 courses:

- Human-Computer Interaction (G. Jacucci, E. Hoggan, A. Oulasvirta)
- Data Mining (H. Toivonen)
- Networks, Crowds and Markets (P. Floréen)
- Probabilistic Models (P. Myllymäki)
- Unsupervised Machine Learning (A. Hyvärinen)
- Data Mining Project (H. Toivonen)
- Project in Probabilistic Models (P. Myllymäki)
- Projects in Unsupervised Machine Learning (M. Gutmann)
- Distributed Systems Project (J. Kangasharju, M. Pervilä)
- Interactive Systems (G. Jacucci)
- Mobile Middleware (S. Tarkoma)
- Biological Sequence Analysis (V. Mäkinen)
- Making good decisions: Introduction to ethics and social responsibility in research (G. Lindén)
- Seminar: Neuroinformatics 3 (A. Hyvärinen)
- Seminar on Intelligent Systems (P. Myllymäki)
- Seminar: Hot Topics in Mobile Computing (S. Tarkoma)
- Seminar: Measuring the Internet (J. Kangasharju)
- Seminar: Thousand Genomes Seminar (E. Ukkonen)
- PhD Student Seminar (J. Kangasharju)
- Introduction to Programming (A. Laaksonen)
- Advanced Course in Programming (A. Laaksonen)
- Programming Project (A. Laaksonen)
- Master's thesis seminar (MBI) (J. Rousu)
- Computational Methods of Systems Biology (J. Rousu)
- Logiikka tietotekniikassa: perusteet (T. Janhunen)
- Discrete Models and Search (E. Oikarinen)
- Combinatorics (P. Kaski)
- Kandiseminaari (T. Janhunen)
- High-throughput bioinformatics (J. Salojärvi)
- Machine Learning: Advanced Probabilistic Methods (J. Hollmén)
- Information Security and Usability (K. Karvonen)

Fall 2011 courses:

- Introduction to Artificial Intelligence (T. Roos)
- Introduction to Data Communication (S. Tarkoma)
- Linux Fundamentals (M. Pervilä)
- GeoMashup CodeCamp (S. Tarkoma)
- Programming Challenges I (A. Laaksonen)
- Algorithms for Bioinformatics (V. Mäkinen)
- Design and Analysis of Algorithms (V. Polishchuk)
- Introduction to Machine Learning (P. Hoyer)
- Discrete optimization (M. Järvisalo)
- Workshop on Computational Creativity (H. Toivonen)
- Distributed Systems (J. Kangasharju)
- Interactive Systems (E. Hoggan)
- Overlay and P2P Networks (S. Tarkoma)
- MSc Thesis Seminar on Algorithms and Machine Learning (H. Toivonen)
- Seminar: Exact Exponential Algorithms (M. Koivisto)
- Seminar on Computational Creativity (H. Toivonen)
- Seminar: Recommender Systems (P. Floréen, P. Nurmi)
- Seminar: Green ICT (J. Kangasharju)
- Seminar: Mobile and Cloud Integration (S. Tarkoma)

- Seminar: Modeling and Data Analysis in HCI (G. Jacucci)
- Seminar: Pattern Discovery in Bioinformatics (V. Mäkinen)
- PhD Student Seminar (J. Kangasharju)
- Elements of Bioinformatics (J. Rousu)
- MSc Thesis Seminar on Bioinformatics (J. Rousu)
- Algorithmic methods of data mining P (P. Papapetrou)
- Special Course in Computer and Information Science IV P (M. Gönen)
- Tietojenkäsittelyteorian perusteet T (T. Junttila)
- Tietojenkäsittelyteorian perusteet Y (T. Junttila)
- Principles of Algorithmic Techniques (P. Kaski)
- Parallel and Distributed Systems (J. Dubrovin)
- Computational Complexity Theory P (T. Junttila)
- Advanced Course in Computational Logic P (T. Janhunen)
- Answer Set Programming P (T. Janhunen)
- Postgraduate Course in Theoretical Computer Science P (E. Czeizler)
- Special Course in Data Communication Software (A. Karila)

A.2. Research visits

Research visits of 1 week or longer are listed here.

Visits to HIIT:

- Alonso Castro, Serafin
  University of Leon, Spain, 3 months
- Berberich, Eric
  Max-Planck-Institut fr Informatik, Germany, 1 week
- Cui, Yong, PhD
  Tsinghua, China, 2 weeks
- Dermoune, Azzouz, Professor
  Universite de Sciences et Technolgies de Lille, 2 weeks
- Eggeling, Ralf
  Martin-Luther-Universität Halle-Wittenberg, Germany, 1 week
- Fischer, Johannes, PhD
  Karlsruhe Institute of Technology, Germany, 2 weeks
- Hensman, James, PhD
  Indiana University, USA, 1 week
- Hirayama, Jun-ichiro, PhD
  University of Kyoto, Japan, 7 months
- Huadong, Ma, PhD
  Beijing University, China, 2 weeks
- Iwerks, Justin
  Stony Brook University, 1 week
- Mamitsuka, Hiroshi
  University of Tokyo, Japan, 1 week
- King, Ross, Professor
  University of Wales, United Kingdom, 1 week
- Manthey, Norbert
  Dresden University of Technology, Germany, 1 week
- Medlar, Alan
  University College London, 2 weeks
- Merhav, Neri, Professor
  Technion - Israel Institute of Technology, 2 weeks
- Morán, Antonio
  University of Leon, Spain, 3 months
- Nederlöf, Jesper
  University of Bergen, Norway, 2 months
- Nowostawski, Mariusz PhD
  University of Otago, New Zealand, 3 weeks
- Raskutti, Garvesh
  University of Berkeley, 2 weeks
- Sans Garcia, Andres
  University of La Rioja, Spain, 3 months
- Sasaki, Hiroaki, PhD
  The University of Electro-Communications, Japan, 4 months
- Wanless, Ian
  Monash University, Melbourne, Australia, 2 weeks
- Wei, Tianwen
  Universite de Sciences et Technolgies de Lille, 2 weeks
- Wen, James
  University of Canterbury, New Zealand, 3 months
- Zhou, Haijun, PhD
  Chinese Academy of Sciences, China, 1 month

Visits from HIIT:

- Adhikari, Prem Raj
  The Delft Bioinformatics Lab, Netherlands, 2 weeks
- Ahlroth, Lauri
  Humboldt University of Berlin, Germany, 3 months
- Chen, Pei Chun
  BUPT Beijing, China, 3 months
- Galbrun, Esther, PhD
  Yahoo! Labs Bangalore, India, 3 months
- Georgii, Elisabeth
  EMBL-EBI European Bioinformatics Institute, UK, 2 weeks
- Gurtov, Andrei
  Russian Academy of Sciences, Petrozavodsk, Russia, 2 weeks
- Gutmann, Michael
  University of Valencia, Spain, 1 week
- Huotari, Kai
  University of California, Berkeley, USA, 12 months

- Hyvärinen, Aapo
  University College London, United Kingdom, 1 week
  University of Oxford, United Kingdom, 2 months
  ATR, Japan, 1 week
- Järvisalo, Matti
  TU Vienna, Austria, 1 week
  University College Dublin, Ireland, 1 week
- Klami, Arto
  University of California, Berkeley, USA, 2 weeks
- Lagerspetz, Eemil
  University of California, Berkeley, USA, 3 months
- Lampinen, Airi
  University of California, Berkeley, USA, 8 months
- Langohr, Laura
  Jožef Stefan Institute (JSI), Slovenia, 3 months
- Liikkanen, Lassi
  Stanford University, USA, 12 months
- Modig, Arttu
  University of Glasgow, Scotland, UK, 1 week
- Nurminen, Antti
  University of Canterbury, New Zealand, 4 months
- Orponen, Pekka
  Universitat Politécnica de Catalunya, Spain, 3 weeks
  Chinese Academy of Sciences, China, 1 month
  Humboldt University of Berlin, Germany, 3 months
- Oulasvirta, Antti
  Florida State University, USA, 3 months
  University of Glasgow, 3 weeks
- Parviainen, Pekka
  Fraunhofer IAIS, Germandy, 1 week
- Peltonen, Jaakko
  University of Sheffield, UK, 8 months
- Pitkänen, Olli
  BUPT Beijing, China, 1 week
- Polischuck, Valentin, PhD
  Max-Planck-Institut fr informatik, Saarbrcken, Germany, 2 months
- Pulkkinen, Teemu
  German Research Center for Artificial Intelligence, Germany, 3 months
- Ruotsalo, Tuukka
  University of California, Berkeley, USA, 12 months
- Sirén, Jouni
  ISTI-CNR, Pisa, Italy, 1 week
- Suomela, Jukka
  Hebrew University of Jerusalem, Israel, 2 weeks
- Toivonen, Hannu
  University of Caen, France, 1 week
- Turunen, Jani
  University of Nairobi, Kenya, 3 weeks
- Virtanen, Seppo
  International Computer Science Institution, Berkeley, USA, 5 months
- Välimäki, Niko
  King's College London, United Kingdom, 2 weeks
  University of Sheffield, UK, 8 months

B. Funding

We first list the funding sources and the distribution of expenses of each site separately. One should note that comparison between different years or between universities is not always straightforward due to different procedures of accounting.

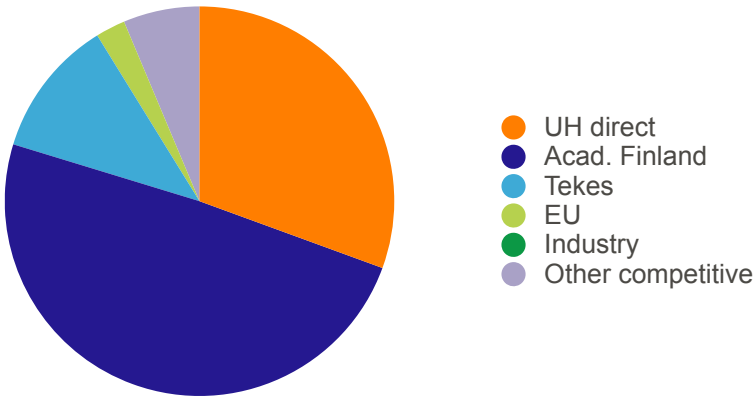
Kumpula's funding figures are shown in Table 1. Direct funding from University of Helsinki (UH) has been ca 1 MEur, of which a portion has directly been transferred to Aalto University to account for common administrative duties, and thus the direct funding to Kumpula is somewhat less than 1 MEur. Funding from the Academy of Finland is very large in 2010-2011 due to the Algodan Center of Excellence funding, and other large Academy projects. In the table of expenses, the "Other operational expenses" have increased in 2010-2011 due to several conferences arranged by HIIT, and some large equipment purchased to HIIT.

Kumpula	**2008**	**2009**	**2010**	**2011**	**%**
Total funding	2 038 431	2 272 824	3 110 733	2 649 318	
UH direct funding	810 000	810 000	810 000	810 000	31 %
Academy of Finland	464 727	306 880	1 156 164	1 301 907	49 %
National Technology Agency Tekes	316 811	373 969	519 348	304 225	11 %
European Union	250 987	207 177	59 832	65 272	2 %
Industry	83 506	56 800	0	0	0 %
Other (Foundations, competitive univ. f.)	112 400	517 998	565 390	167 914	6 %

Total expenses	2 170 579	2 450 851	2 915 601	2 410 656	
Salaries	1 668 685	1 981 005	2 091 923	1 515 436	63 %
Other operational expenses	366 204	261 320	542 065	608 760	25 %
Service charge to UH (rents included)	135 690	208 526	281 614	286 460	12 %

Table 1: Kumpula funding 2008-2011.

Figure 1: Kumpula funding 2011.



Otaniemi Innopoli's funding figures are shown in Table 2. We list separately the funding of two doctoral programmes of the Academy of Finland which HIIT coordinates: they do not fully contribute to HIIT's person-years or publications as most doctoral students are employed by other universities, but they constitute a largish part of HIIT's budget. Similarly in the list of Expenses, the large amount of "other operational expenses" mainly consists of the expenses of these doctoral programmes.

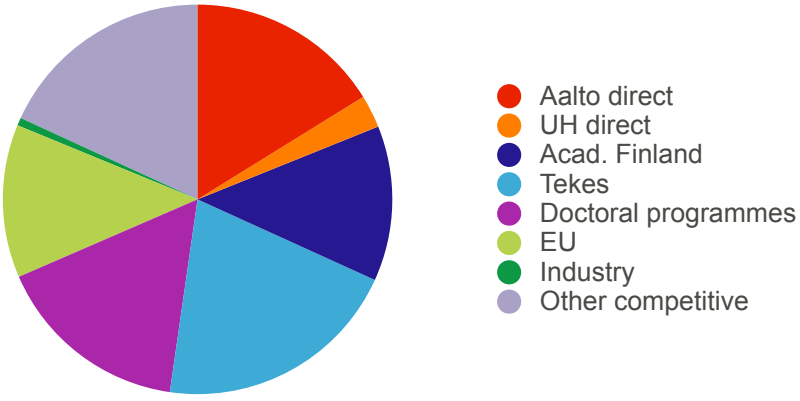
In Table 2, in the category Other, we list competitive grants given by Foundations and Aalto University. This also includes a Research Assessment Excercise bonus given by Aalto University.

Otaniemi Innopoli	**2008**	**2009**	**2010**	**2011**	**%**
Total funding	5 232 367	5 591 965	6 328 058	6 180 389	
Aalto direct funding	773 338	1 000 000	1 000 000	1 000 000	16 %
UH direct funding	168 200	168 200	168 200	168 200	3 %
Academy of Finland	178 359	343 300	612 452	796 505	13 %
National Technology Agency Tekes	2 112 314	2 194 968	1 923 352	1 266 363	20 %
Acad.Finland doctoral programmes			1 007 319	1 001 904	16 %
European Union	1 051 384	910 838	848 983	786 099	13 %
Industry	306 804	183 766	190 464	40 173	1 %
Ministries and other public funding	147 052	94 820	0	9 500	0 %
Other (Foundations, competitive univ. f.)	494 917	419 281	643 587	1 111 644	18 %

Total expenses	5 073 352	5 333 995	5 981 211	5 869 826	
Salaries	3 496 797	3 616 745	3 434 744	2 756 648	47 %
Other operational expenses	1 068 548	957 482	1 793 403	2 415 402	41 %
Rents	326 854	426 773	474 044	430 582	7 %
Service charge to Aalto	181 154	332 995	279 021	267 194	5 %

Table 2: Otaniemi Innopoli funding 2008-2011.

Figure 2: Otaniemi Innopoli funding 2011.



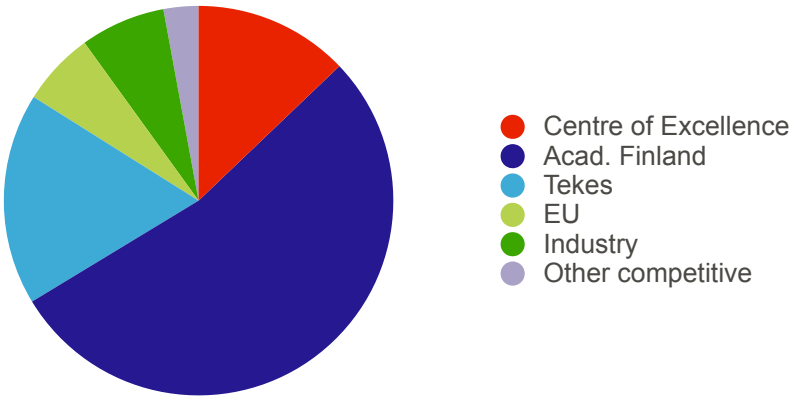
Otaniemi T building's funding figures are shown in Table 3. T building corresponds to HIIT activities at Aalto University's ICS and CSE departments.

Otaniemi T building	2008	2009	2010	2011	%
Total funding	1 244 819	1 059 800	2 535 715	1 589 901	
Centre of Excellence funding from Aalto	90 000	133 400	182 775	204 554	13 %
Academy of Finland	306 761	265 800	657 470	849 966	53 %
National Technology Agency Tekes	598 048	381 400	957 160	279 865	18 %
European Union		98 000	115 198	97 118	6 %
Industry	35 074		176 397	112 303	7 %
Other (Foundations, competitive univ. f.)	214 936	181 200	446 716	46 095	3 %

Total expenses	1 328 972	899 300	2 236 649	1 472 035	
Salaries	1 008 668	685 100	1 712 996	1 094 232	74 %
Other operational expenses	203 608	94 700	175 607	123 716	8 %
Service charge to Aalto (rents included)	116 696	119 500	348 046	254 087	17 %

Table 3: Otaniemi T building funding 2008-2011.

Figure 3: Otaniemi T building funding.



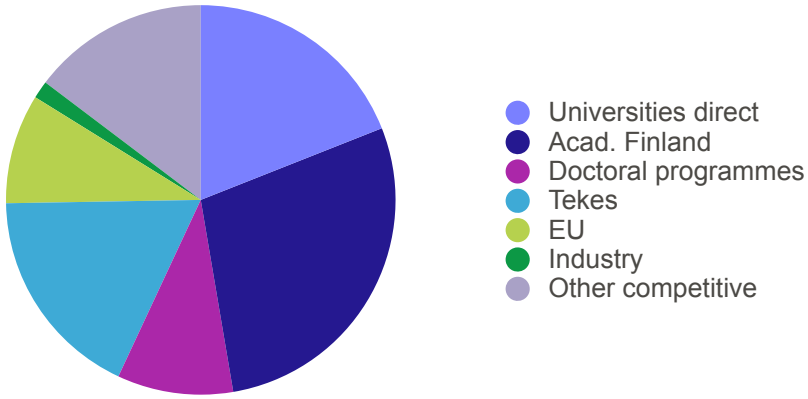
Finally we list the funding sources and the distribution of expenses for the whole HIIT in Table 4. There is a slight decrease in funding, mostly attributed to a smaller portion of Tekes and industry funding.

HIIT	2008	2009	2010	2011	%
Total funding	8 619 674	8 924 589	12 040 805	10 419 607	
Universities' direct funding	1 756 200	1 978 200	1 978 200	1 978 200	19 %
Academy of Finland	949 847	915 980	2 426 086	2 948 378	28 %
Doctoral programmes			1 007 319	1 001 904	10 %
National Technology Agency Tekes	3 027 173	2 950 337	3 399 860	1 850 453	18 %
European Union (EU)	1 302 371	1 216 015	1 024 012	948 489	9 %
Industry	425 384	240 566	366 861	152 476	1 %
Ministries and other public funding	147 052	94 820	0	9 500	0 %
Other (Foundations, competitive univ. f.)	709 853	1 251 879	1 838 468	1 530 208	15 %

Total expenses	8 572 903	8 684 146	11 133 463	9 752 517	
Salaries	6 174 150	6 282 850	7 239 663	5 366 316	55 %
Other operational expenses	1 638 359	1 313 502	2 511 075	3 147 878	32 %
Service charge to UH/Aalto	433 540	635 299	788 648	765 307	8 %
Rents	326 854	452 495	594 077	473 016	5 %

Table 4: HIIT funding 2008-2011.

Figure 4: HIIT funding 2011.



C. Personnel

In 2011 HIIT staff completed 135 person-years on HIIT funding; this is significantly less than in the previous year (175). Many additional persons affiliated with HIIT are funded by participating departments, or personal grants either from the Academy of Finland or Foundations. The diversity of affiliations is characteristic of HIIT personnel: the most common is an affiliation with one or both of the parent universities, but there are also some who share their time between HIIT and some other organisation. Thus the total number of personnel (272) is much higher than the number of person-years completed by HIIT funding.

The distribution of person-years per site is shown in Table 5. The Otaniemi T building row comprises HIIT researchers both at Aalto University's ICS department and CSE department.

Staff (person-years)	2006	2007	2008	2009	2010	2011
Kumpula	55	57	57	60	55	40
Otaniemi Innopoli	55	60	82	83	72	66
Otaniemi T building	9	12	26	42	48	29
total	119	129	165	185	175	135

Table 5: Number of person-years paid by HIIT 2006-2011.

Another way to visualize the personnel is in Table 6 which shows the distribution of person years per personnel group, again only listing the person years completed by HIIT funding.

Staff (person-years)	Kumpula	Otaniemi Innopoli	Otaniemi T building	total
seniors, postdocs	12	15	7	34
doctoral students	14	22	19	55
project researchers	1	9	0	10
research assistants	11	13	3	27
administration	2	7	0	9
total	40	66	29	135

Table 6: Distribution of person-years by personnel groups 2011.

The number of non-Finnish staff members is about 20 per cent. Almost all non-Finns come from Europe, China, India and India's neighbouring countries. Figure 5 shows the distribution of nationalities in all personnel, also including those not counted into HIIT's person-years.

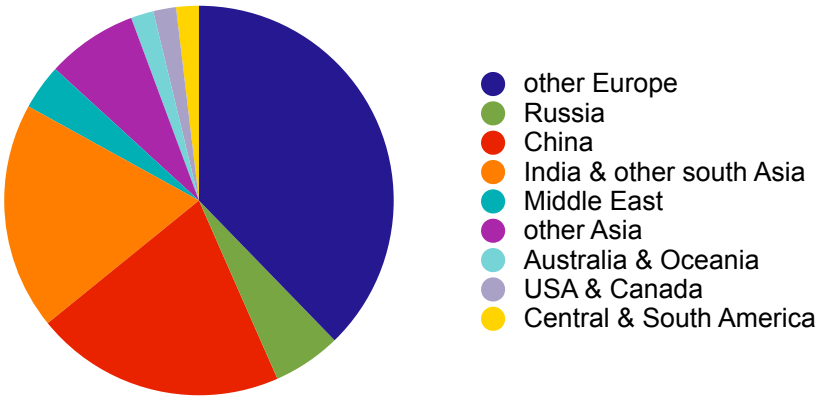


Figure 5: Nationalities of non-Finnish staff members 2011.

List of Personnel

Adhikari, Prem	Doctoral Student	T building
Ahlroth, Lauri	Doctoral Student	T building
Ahonen, Teppo	Doctoral Student	Kumpula
Ajanki, Antti	Doctoral Student	T building
Akusok, Anton	Research Assistant	T building
Athukorala, Kumaripaba Miyurusara	Doctoral Student	Innopoli
Bergström-Lehtovirta, Joanna	Doctoral Student	Innopoli
Bhattacharya, Sourav	Doctoral Student	Kumpula
Bingham, Ella	Research Coordinator	Innopoli, T building
Biza, Solomon	Research Assistant	Innopoli
Björkskog, Christoffer	Project Researcher	Innopoli
Buntine, Wray	HIIT Fellow	Kumpula
Campi, Cristina	Postdoctoral Research Scientist	Kumpula
Cecchinato, Marta	Research Assistant	Kumpula
Chen, Pei-Chun	Doctoral Student	Innopoli
Czeizler, Eugen	Postdoctoral Research Scientist	T building
De Silva, Yagama	Research Assistant	Kumpula
Dubrovin, Jori	Teaching Research Scientist	T building

Enlund, Nils	Coordinator	Innopoli
Entner, Doris	Doctoral Student	Kumpula
Eriksson-Bique, Sylvester	Research Assistant	Kumpula
Eyherabide, Hugo	Postdoctoral Research Scientist	Kumpula
Faisal, Muhammad Ali	Doctoral Student	T building
Fitta, Manyazewal	Research Assistant	Innopoli
Floréen, Patrik	Vice Director	Kumpula, Innopoli
Forsblom, Andreas	Research Assistant	Kumpula, Innopoli
Frits, Juho	Research Assistant	T building
Galbrun, Esther	Doctoral Student	Kumpula
Georgantas, Konstantinos	Research Assistant	Innopoli
Georgii, Elisabeth	Postdoctoral Research Scientist	Innopoli
Gillberg, Jussi	Doctoral Student	T building
Glowacka, Dorota	Postdoctoral Research Scientist	Kumpula
Gross, Oskar	Doctoral Student	Kumpula
Gurtov, Andrei	Professor	Innopoli
Gutmann, Urs Michael	Postdoctoral Research Scientist	Kumpula
Gönen, Mehmet	Postdoctoral Research Scientist	T building
Göös, Mika	Research Assistant	Kumpula
Hamari, Juho	Doctoral Student	Innopoli
Hasu, Tero	Project Researcher	Innopoli
Haverinen, Laura	Research Assistant	Kumpula
Hemminki, Samuli	Research Assistant	Kumpula, Innopoli
Hietanen, Herkko	Postdoctoral Research Scientist	Innopoli
Hiienkari, Markus	Research Assistant	T building
Himanen, Pekka	Professor	Innopoli
Hirayama , Jun-Ichiro	Senior Research Scientist	Kumpula
Hiroaki, Sasaki	Senior Research Scientist	Kumpula
Hirvonen, Juho	Research Assistant	Kumpula
Hoggan, Eve	Postdoctoral Research Scientist	Kumpula
Hollmén, Jaakko	Chief Research Scientist	T building
Holmqvist, Iris	Project Secretary	Innopoli
Honkela, Antti	Senior Research Scientist	Kumpula
Hopearuoho, Erno	Technical Specialist	Innopoli

Hoque, Mohammad	Doctoral Student	T building
Hoyer, Patrik	Senior Research Scientist	Kumpula
Huotari, Kai	Doctoral Student	Innopoli
Husu, Tuomas	Research Assistant	Innopoli
Hyttinen, Antti	Doctoral Student	Kumpula
Hyvärinen, Aapo	Professor	Kumpula
Hyvärinen, Antti	Doctoral Student	T building
Hyvärinen, Onni	Research Assistant	T building
Jaakkola, Tommi	HIIT Fellow	Kumpula
Jacucci, Giulio	Professor	Kumpula
Janhunen, Tomi	Professor	T building
Jha, Vikash	Research Assistant	Innopoli
Johnson, Mikael	Doctoral Student	Innopoli
Junttila, Tommi	Teaching Research Scientist	T building
Järvisalo, Matti	Postdoctoral Research Scientist	Kumpula
Kallio, Mikko	Doctoral Student	T building
Kamalov, Murad	Project Researcher	Innopoli
Kandemir, Melih	Doctoral Student	T building
Kangas, Juho-Kustaa	Research Assistant	Kumpula
Kangasharju, Jussi	Professor	Kumpula, Innopoli
Kankainen, Anu	Senior Research Scientist	Innopoli
Karila, Arto	Senior Research Scientist	Innopoli
Karjalainen, Ari	Research Assistant	Kumpula
Karlstedt, Mika	Doctoral Student	Kumpula
Karvonen, Kristiina	Postdoctoral Research Scientist	Innopoli
Kaski, Petteri	Professor	T building
Kaski, Samuel	Professor, Director of HIIT	Kumpula, Innopoli, T building
Kauppi, Jukka-Pekka	Postdoctoral Research Scientist	Kumpula
Kaur, Puneet	Research Assistant	Kumpula
Keating, Andrew	Research Assistant	Innopoli
Kempa, Dominik	Doctoral Student	Kumpula
Kemppinen, Jukka	Senior Research Scientist	Innopoli
Ketola, Maija	Project Researcher	Innopoli
Khan, Rasib	Project Researcher	Innopoli

Khan, Suleiman	Doctoral Student	T building
Kindermann, Roland	Doctoral Student	T building
Klami, Arto	Postdoctoral Research Scientist	T building
Koivisto, Mikko	Senior Research Scientist	Kumpula
Kokkala, Jussi	Research Assistant	T building
Kontkanen, Petri	Postdoctoral Research Scientist	Kumpula
Korhonen, Janne	Doctoral Student	Kumpula
Korpela, Mikko	Doctoral Student	T building
Korzun, Dmitry	Postdoctoral Research Scientist	Innopoli
Koskela, Joakim	Doctoral Student	Innopoli
Koskela, Markus	Postdoctoral Research Scientist	T building
Kostakis, Orestis	Research Assistant	T building
Kosunen, Ilkka	Research Assistant	Innopoli
Kuikkaniemi, Kai	Doctoral Student	Innopoli
Kujala, Inka	Planning Officer	Kumpula
Kuosmanen, Anna	Research Assistant	Kumpula
Kuptsov, Dmitriy	Doctoral Student	Innopoli
Kuuppelomäki, Päivi	Planning Officer	Kumpula
Kähkönen, Kari	Doctoral Student	T building
Lagerspetz, Eemil	Doctoral Student	Innopoli
Lagutin, Dmitrij	Postdoctoral Research Scientist	Innopoli
Lahti, Leo	Postdoctoral Research Scientist	T building
Laine, Tuomo	Secretary	Innopoli
Laitinen, Tero	Doctoral Student	T building
Laitinen, Toni	Project Researcher	Innopoli
Lam, Gayle	Postdoctoral Research Scientist	T building
Lampinen, Airi	Doctoral Student	Innopoli
Langohr, Laura	Doctoral Student	Kumpula
Launiainen, Tuomas	Doctoral Student	T building
Laurinharju, Juhana	Research Assistant	Kumpula
Lehdonvirta, Vili	Postdoctoral Research Scientist	Innopoli
Lehmuskallio, Asko	Doctoral Student	Innopoli
Lehtinen, Ville	Project Researcher	Innopoli
Lehtinen, Vilma	Doctoral Student	Innopoli

Lehtiö, Anu	Research Assistant	Innopoli
Lehtonen, Marko	Doctoral Student	Innopoli
Lempiäinen, Tuomo	Research Assistant	T building
Leppäaho, Eemeli	Research Assistant	T building
Leppänen, Laura	Research Assistant	Innopoli
Liao, Yi-Ching	Research Assistant	Innopoli
Lievonen, Petri	Research Assistant	Innopoli
Liikkanen, Lassi	Postdoctoral Research Scientist	Innopoli
Lijffijt, Jefrey	Doctoral Student	T building
Linden, Greger	Research Coordinator	Kumpula
Linkola, Simo	Research Assistant	Kumpula
Liu, Guohua	Postdoctoral Research Scientist	T building
Luosto, Panu	Doctoral Student	Kumpula
Lv, Guowei	Research Assistant	T building, Innopoli
Mahmoudi, Hamed	Doctoral Student	T building
Manner, Jukka	Professor	Kumpula
Mansikkaniemi, Andre	Doctoral Student	T building
Markus, Konrad	Project Researcher	Innopoli
Meriläinen, Arto	Research Assistant	Innopoli
Miche, Yoan	Postdoctoral Research Scientist	T building
Miettinen, Minna	Research Assistant	Kumpula
Miettunen, Pirkko	Department Secretary	Innopoli
Komu, Miika	Doctoral Student	T building
Mikkola, Pekka	Research Assistant	Kumpula
Mikkonen, Simo	Research Assistant	Innopoli
Modig, Arttu	Research Assistant	Innopoli
Moen, Pirjo	Research Coordinator	Kumpula
Moliya, Dhaval	Research Assistant	T building
Muhammad, Ammad-ud-din	Research Assistant	T building
Mukuthu, Joel Muriithi	Research Assistant	Innopoli
Myllymäki, Petri	Professor	Kumpula, Innopoli
Mäkelä, Mari	Research Assistant	Innopoli
Mäkinen, Veli	Professor	Kumpula
Määttä, Jussi	Research Assistant	Kumpula

Narayanan, Krishnan	Doctoral Student	Kumpula
Nechaev, Boris	Doctoral Student	Innopoli
Nelimarkka, Matti	Project Researcher	Innopoli, Kumpula
Nevala, Maija	Doctoral Student	T building
Niemelä, Ilkka	Professor	T building
Niemimäki, Sami	IT Specialist	Innopoli
Niinimäki, Teppo	Doctoral Student	Kumpula
Nikolaevskiy, Ilya	Research Assistant	Innopoli
Nkinyili, Kelvin	Research Assistant	Innopoli
Noronen, Visa	Communications Manager	Innopoli
Nuorento, Markus	IT Specialist	Kumpula
Nurmi, Petteri	Postdoctoral Research Scientist	Kumpula, Innopoli
Nurminen, Antti	Postdoctoral Research Scientist	Innopoli
Nurminen, Jukka	Professor	T building
Oikarinen, Emilia	Postdoctoral Research Scientist	T building
Ojala, Pauli Olavi	Research Assistant	Innopoli
Oksanen, Kenneth	Project Researcher	Innopoli
Orponen, Pekka	Professor	T building
Oulasvirta, Antti	Postdoctoral Research Scientist	Innopoli
Palomäki, Jussi	Research Assistant	Innopoli
Palttala, Juhani	Project Researcher	Innopoli
Papapetrou, Panagiotis	Postdoctoral Research Scientist	T building
Parkkinen, Juuso	Doctoral Student	T building
Parviainen, Pekka	Doctoral Student	Kumpula
Peltonen, Jaakko	Postdoctoral Research Scientist	T building
Penttilä, Markus	Research Assistant	Kumpula, Innopoli
Perkiö, Jukka	Doctoral Student	Kumpula, Innopoli
Pihlaja, Miika	Doctoral Student	Kumpula
Pihlajamaa, Aurora	Research Assistant	Innopoli
Pitkänen, Esa	Postdoctoral Research Scientist	Kumpula
Pitkänen, Olli	Senior Research Scientist	Innopoli
Polishchuk, Tatiana	Doctoral Student	Innopoli
Polishchuk, Valentin	Postdoctoral Research Scientist	Kumpula
Prami, Mikko	Research Assistant	Innopoli

Pulkkinen, Teemu	Doctoral Student	Kumpula
Puolamäki, Kai	Chief Research Scientist	T building
Puuronen, Jouni	Doctoral Student	Kumpula
Pyykkö, Joel	Research Assistant	Kumpula
Raita, Eeva Anneli	Doctoral Student	Innopoli
Rajanen, Joni	Assistant	Innopoli
Ravaja, Niklas	Professor	Innopoli
Ray, Debarshi	Research Assistant	Kumpula, Innopoli
Reijonen, Aki	Research Assistant	Kumpula
Reinvall, Jaakko	Research Assistant	T building
Reitmaa, Jukka	Research Assistant	Innopoli
Rissanen, Jorma	HIIT Fellow	Kumpula
Roine, Markus	Research Assistant	Kumpula
Roos, Teemu	Senior Research Scientist	Kumpula
Ruotsalo, Tuukka	Postdoctoral Research Scientist	Innopoli
Ruusunen, Matti	Technical Specialist	Innopoli
Rybicki, Joel	Research Assistant	Kumpula
Saari, Timo	Professor	Innopoli
Salmela, Leena	Postdoctoral Research Scientist	Kumpula
Salovaara, Antti	Doctoral Student	Innopoli
Santra, Sougata	Research Assistant	Kumpula
Sarvas, Risto	Postdoctoral Research Scientist	Innopoli
Savolainen, Petri	Doctoral Student	Innopoli
Schumacher, Andre	Postdoctoral Research Scientist	T building
Seth, Sohan	Postdoctoral Research Scientist	Innopoli
Shen, Huibin	Research Assistant	Kumpula
Siekkinen, Matti	Postdoctoral Research Scientist	T building
Silfverberg, Suvi	Doctoral Student	Innopoli
Simanainen, Miska	Research Assistant	Innopoli
Sirén, Jouni	Doctoral Student	Kumpula
Sjöberg, Mats	Doctoral Student	T building
Sri Kalyanaraman, Ramya	Project Researcher	Innopoli
Stewart, Craig	Project Researcher	Kumpula
Su, Hongyu	Doctoral Student	Kumpula

Summanen, Iris	Research Assistant	Innopoli
Suomalainen, Tiia	Research Assistant	Innopoli
Suomela, Jukka	Postdoctoral Research Scientist	Kumpula
Suvitaival, Tommi	Doctoral Student	T building
Sysikaski, Mikko	Research Assistant	Kumpula
Tarkoma, Sasu	Professor	Kumpula
Teräs, Sampo Olavi	Doctoral Student	Innopoli
Toivanen, Jukka	Research Assistant	Kumpula
Toivonen, Hannu	Professor	Kumpula
Tolvanen, Juha	Project Researcher	Innopoli
Tonteri, Pekka	IT Manager	Innopoli
Topa, Hande	Doctoral Student	T building
Torvinen, Juha	Project Researcher	Innopoli
Tukiainen, Ninja	Research Assistant	T building
Tuominen, Antti	Research Assistant	Kumpula
Turner, Daniel	Project Researcher	Innopoli
Turunen, Jani	Technical Specialist	Innopoli
Uitto, Jara	Research Assistant	Kumpula
Ukkonen, Esko	Professor	Kumpula
Urtela, Mika	Research Assistant	Kumpula
Uziela, Karolis	Research Assistant	Kumpula
Vainio, Niklas	Project Researcher	Innopoli
Valitutti, Alessandro	Postdoctoral Research Scientist	Kumpula
Varjonen, Samu	Doctoral Student	Kumpula
Vigano, Cristina	Research Assistant	Kumpula
Vihavainen, Sami	Doctoral Student	Innopoli
Vilkki, Max Antero	Research Assistant	Innopoli
Virtanen, Seppo Juhani	Doctoral Student	Innopoli
Virtanen, Perttu	Postdoctoral Research Scientist	Innopoli
Visala, Kari	Doctoral Student	Innopoli
Vuokko, Niko	Doctoral Student	T building
Vuorinen, Matti	Doctoral Student	Kumpula
Vähäkangas, Taneli	Doctoral Student	Kumpula, Innopoli
Väisänen, Jussi	Research Assistant	Kumpula

Välimäki, Niko	Doctoral Student	Kumpula
Wahlström, Mikael	Doctoral Student	Innopoli
Wang, Liang	Doctoral Student	Kumpula
Wang, Ziran	Research Assistant	Kumpula
Wessman, Jaana	Doctoral Student	Kumpula
Wijekoon, Dinesh	Project Researcher	Kumpula
Xiao, Yu	Doctoral Student	T building
Xu, Lilu	Research Assistant	Kumpula
Yangarber, Roman	Senior Research Scientist	Kumpula
Yarisaeedkhanloo, Bahman	Research Assistant	T building
Ylä-Jääski, Antti	Professor	T building
Ylinen, Johannes	Research Assistant	Kumpula
Zhang, He	Doctoral Student	T building
Zhou, Fang	Doctoral Student	Kumpula
Zou, Yuan	Doctoral Student	Kumpula
Åman, Pirkka	Doctoral Student	Innopoli

D. Publications

Publications 2005 - 2011	2005	2006	2007	2008	2009	2010	2011
Articles in international scientific journals with referee practice	29	38	50	67	51	69	79
Articles in international edited works and conference proceedings with referee practice	112	101	94	126	126	153	134
Scientific monographs and edited books	8	2	6	3	6	8	9
Other publications	17	23	19	40	25	25	29
Computer programs and algorithms	3	1	1	0	1	10	8
Doctoral theses	3	7	9	14	13	10	7
Licenciate theses	1	2	0	1	1	0	0
Master's theses	7	10	8	76	27	33	53
Total	180	184	187	327	250	308	319

D.1. Articles in international scientific journals with referee practice

Antti Ajanki, Mark Billinghurst, Hannes Gamper, Toni Järvenpää, Melih Kandemir, Samuel Kaski, Markus Koskela, Mikko Kurimo, Jorma Laaksonen, Kai Puolamäki, Teemu Ruokolainen, and Timo Tossavainen. An augmented reality interface to contextual information. *Virtual Reality*, 15(2-3):161–173, 2011.

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